

January 31, 2020

VIA ETARIFF

The Honorable Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

**Re: PacifiCorp, Docket No. ER20-____-000
Revisions to Generator Interconnection Procedures**

Dear Secretary Bose:

Pursuant to Section 205 of the Federal Power Act, 16 U.S.C. § 824d, Part 35 of the Federal Energy Regulatory Commission's ("FERC" or "Commission") regulations,¹ and Order No. 714,² PacifiCorp submits revisions to its Open Access Transmission Tariff, FERC Electric Tariff Volume No. 11 ("PacifiCorp OATT" or "Tariff"). The revisions modify PacifiCorp's Large Generator Interconnection Procedures ("LGIP") and Small Generator Interconnection Procedures ("SGIP")³ and the associated appendices, including the Large Generator Interconnection Agreement ("LGIA") and Small Generator Interconnection Agreement ("SGIA"),⁴ to move from a "first-come, first-served" approach based on the Commission's *pro forma* interconnection procedures to a "first-ready, first-served" cluster study approach.⁵

PacifiCorp's current interconnection process, based on the *pro forma* LGIP, presents significant challenges in meeting the goals of Order No. 2003⁶ due to a large number of Interconnection Requests in the company's queue. The proposed Tariff changes will expedite the development of new generation, while protecting reliability and ensuring that rates are just and reasonable by improving the processing of Interconnection Requests. Because the proposed process will better achieve the goals of Order No. 2003 than is possible under PacifiCorp's current

¹ 18 C.F.R. Part 35 (2019).

² *Electronic Tariff Filings*, FERC Stats. & Regs. ¶ 61,276 (2008) ("Order No. 714").

³ PacifiCorp Open Access Transmission Tariff, Parts IV and V, Sections 36-52 ("PacifiCorp Tariff"). Except as defined in this transmittal letter, capitalized terms shall have the meanings set forth in PacifiCorp's proposed tariff or PacifiCorp's current Tariff, as applicable.

⁴ PacifiCorp Tariff Part IV, Appendix 6; Part V, Appendix 9.

⁵ As detailed further herein, PacifiCorp's proposal is largely based upon the "first-ready, first-served" interconnection procedures the Commission has approved for Public Service Company of New Mexico and Public Service Company of Colorado. See *Pub. Serv. Co. of N.M.*, 136 FERC ¶ 61,231 (2011) ("*PNM Order*"); *Pub. Serv. Co. of Colo.*, 169 FERC ¶ 61,182 (2019) ("*PSCo Order*").

⁶ *Standardization of Generator Interconnection Agreements and Procedures*, Order No. 2003, 68 Fed. Reg. 49,845 (Aug. 19, 2003), FERC Stats. & Regs. ¶ 31,146 (2003), *order on reh'g*, Order No. 2003-A, FERC Stats. & Regs. ¶ 31,160 (2004), *order on reh'g*, Order No. 2003-B, FERC Stats. & Regs. ¶ 31,171, *order on reh'g*, Order No. 2003-C, FERC Stats. & Regs. ¶ 31,190 (2005), *aff'd sub nom. Nat'l Assoc. of Regulatory Util. Comm'rs v. FERC*, 475 F.3d 1277 (D.C. Cir. 2007).

LGIP, the Commission should find PacifiCorp’s proposal is consistent with or superior to the *pro forma* LGIP.

PacifiCorp respectfully requests that the Commission issue any order by March 31, 2020, 60 days after the date of this filing, accepting these OATT revisions effective April 1, 2020.

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I. EXECUTIVE SUMMARY

The “first come, first served” approach to generator interconnections was formally adopted by the Commission in Order No. 2003 and its progeny over 16 years ago.⁷ This “serial” interconnection process achieved the Commission’s articulated policy goals at that time. It provides for orderly processing of potentially competing requests for interconnection service and, in the case of a vertically-integrated transmission provider, ensures that third-party resources (i.e., projects by independent non-utility developers) move through the interconnection process on equal footing as utility-owned generation projects. Through the standardized interconnection rules in Order No. 2003, the Commission sought to implement an interconnection framework that “provide[s] a reasonable balance between the competing goals of uniformity and flexibility.”⁸ The Commission further emphasized that the policy driver of interconnection reform at that time was “bringing much-needed generation into the market to meet the growing needs of electricity customers,” given that “relatively unencumbered entry into the market is necessary for competitive markets.”⁹

In recent years, the confluence of expiring federal tax credits, state renewable resource requirements, and other factors have led to a massive influx of demand for new generator interconnections in the wind- and solar-rich western United States, including in PacifiCorp’s service territory. This increased demand for interconnection is reflective of wholesale competition as project developers compete to serve static or even declining load. Indeed, the amount of requested capacity in the PacifiCorp interconnection queue has increased to more than three times the amount of actual energy demand on the PacifiCorp system. The serial, “first-come, first served” interconnection process is no longer adequate to handle the large number of Interconnection Requests.

The Commission has recognized the shortcomings of the serial queue process in certain situations, and as a result has “strongly encouraged”¹⁰ clustering and the use of cluster queue windows to improve queue management efficiency.¹¹ The Commission has also acknowledged that switching to a “first-ready, first-served” approach, where customers who are commercially ready to move forward with project development are processed first, would improve interconnection efficiency while also providing protection against discrimination that is comparable to the “first-come, first-served” approach.¹²

⁷ See generally Order No. 2003, FERC Stats. & Regs. ¶ 31,146 (2003).

⁸ *Id.* at P 7.

⁹ *Id.* at P 11 (emphasis added).

¹⁰ *Id.* at P 155.

¹¹ See *id.* at P 156 (explaining that efficient queue management practices are “best obtained using clustered queue windows, not through the sequential processing of Interconnection Requests.”).

¹² *Interconnection Queuing Practices*, 122 FERC ¶ 61,252, at P 18 (2008). See also *El Paso Elec. Serv. Co.*, 137 FERC ¶ 61,101, at P 9 (2011) (citing the Commission’s acknowledgement that there may be approaches to prioritizing queue processing that protect against discrimination comparable to the first-

On the PacifiCorp system, the high volume of serially processed Interconnection Requests not only increases the cost and timing requirements associated with lower-priority interconnection queue requests, but it has a negative impact on the timing of study results. Taken together, these factors delay generation developers' ability to make informed investment decisions and ultimately interconnect their projects.

PacifiCorp respectfully requests that the Commission accept the enclosed reforms to be effective April 1, 2020. This timing would allow PacifiCorp to accommodate stakeholder requests that the "first-ready, first-served" cluster study process be in place before PacifiCorp's 2020 Request for Proposals (the "2020 RFP").¹³ In particular, PacifiCorp received extensive stakeholder feedback that having an interconnection reform proposal accepted and on file before PacifiCorp's 2020 RFP begins, currently estimated to be Q3 2020, would eliminate significant uncertainty for and disruption in the development community. In addition, stakeholders emphasized that in order for the enclosed reforms, which are based on a "first ready" concept of commercial readiness, to have the most value to the generation development community, they should align with the timing of the 2020 RFP because selection in the RFP may be the primary means by which certain projects demonstrate commercial readiness.

A. The Serial Queue is Clogged Due to a Large Number of Interconnection Requests, Which Adversely Impacts Interconnection Customers

As discussed in the testimony of Rick Vail, PacifiCorp's Vice President of Transmission, the company's interconnection queue has become overwhelmed by the number of Interconnection Requests. As of October 2019, over 234 Interconnection Requests sit in PacifiCorp's queue, representing over 40,135 MW.¹⁴ Processing this volume of requests in serial-queue order can lead to rather drastic interconnection study requirements, as the cost and timing associated with each request has a cumulative impact on the cost and timing requirements of subsequent requests. This also means changes to higher-priority projects can impact an unusually high number of lower-priority projects, i.e., withdrawals often cause cascading re-studies, while projects in suspension create additional uncertainty for later studies that assumed those projects would be online in accordance with the terms of their studies and agreements. Queue volumes of this level make it difficult or impossible for developers with viable projects to proceed apace through the interconnection process.

come, first-served approach, but that are more efficient in accepting proposal to use a standard six-month study cluster); *Ariz. Pub. Serv. Co.*, 137 FERC ¶ 61,099, at P 9 (2011) (same); *NV Energy, Inc.*, 142 FERC ¶ 61,165, at P 27 (2013) (same).

¹³ PacifiCorp's resource procurement function has announced its intention to issue a request for generation supply proposals in 2020. A significant portion of the projects in PacifiCorp's generator interconnection queue signaled throughout the queue reform stakeholder process that the 2020 RFP represents their best option for demonstrating commercial readiness, and thus urged PacifiCorp Transmission to ensure the queue reform filing was timed to align with the 2020 RFP.

¹⁴ Testimony of Rick Vail at 7:15 (included as Exhibit PAC-1 hereto) ("Vail Testimony").

B. PacifiCorp's Proposed Interconnection Reforms Will Enable a More Timely and Streamlined Interconnection Process

To address the issues that have arisen with its serial queue process, PacifiCorp has worked with its stakeholders since June 2019 to develop a comprehensive queue reform package embodied in this filing. The Tariff revisions proposed herein include many the Commission has accepted before as improvements to the *pro forma* tariff, most importantly replacing the *pro forma* "first-come, first served" serial queue approach with a "first-ready, first-served" cluster study approach.

The interconnection reforms proposed herein will be implemented in two phases: a prospective reform process to govern new Interconnection Requests ("Prospective Reform"), and a Transition Cluster Study Process ("Transition Process") to clear out the existing queue and enable commercially viable projects to efficiently receive interconnection service.

1. Prospective Reforms

The Prospective Reforms lay the groundwork for a going-forward process that will improve the timing and reliability of the interconnection study process for the benefit of all project developers. The Prospective Reforms include the following basic components:

- Adoption of a "first-*ready*, first served" approach to interconnections based on demonstrations of objective and non-discriminatory commercial readiness criteria;
- Use of Cluster Studies by electrically relevant areas in lieu of the serial study approach, followed by facility-specific Facilities Studies;
- Shared Network Upgrade funding responsibility within a Cluster;
- The use of Informational Interconnection Studies to enable Interconnection Customers to explore interconnection possibilities and gain valuable information before entering the interconnection queue, in lieu of a Feasibility Study; and
- Assessment of certain penalties for withdrawing Interconnection Requests.

2. Transition Process

The proposed Transition Process creates rules to address the current backlog of Interconnection Requests in a manner consistent with such reforms accepted elsewhere.¹⁵ The enclosed Transition Process implements the prospective interconnection reforms in a manner that clears out the existing queue and ensures that commercially viable projects can receive timely interconnection service. The proposed Transition Process has the following elements:

- All Large and Small Generator Interconnection Requests that have been received by January 31, 2020, the date of this filing (the "Transition Close Date"), will be eligible for inclusion in a "Transition Cluster Study".

¹⁵ See *PSCo Order* at P 67 (accepting PSCo's similar transition process as a reasonable means to implement its queue reform proposal because it would help resolve PSCo's queue backlog).

- To enter the Transition Cluster Study, Large Generator Interconnection Customers will have to demonstrate commercial readiness by October 15, 2020 (the “Transition Readiness Deadline”), under the same criteria as in the prospective process, with one critical exception: projects will not be able submit financial security in lieu of commercial readiness in the Transition Process. Small Generator Interconnection Customers will not be required to demonstrate commercial readiness.
- Late-stage projects—i.e., those large projects in the queue as of as of April 1, 2020, have received a Facilities Study Agreement or are beyond that point but have not yet executed an interconnection agreement—will also be required to demonstrate commercial readiness by the same Transition Readiness Deadline, but will be permitted to complete their interconnection process without being re-studied in a Transition Cluster.
- Large projects that are not able to meet commercial readiness standards, or any large or small project that chooses to withdraw from the Transition Process, will not be subject to withdrawal penalties.

3. The Proposal is Consistent with FERC Precedent

PacifiCorp’s proposal builds on its currently-effective OATT (which already provides for cluster studies and many of the study parameters proposed here), as well as interconnection reforms that have been previously accepted by the Commission, primarily for Public Service Company of Colorado (“PSCo”) and Public Service Company of New Mexico (“PNM”).¹⁶ For the few aspects of this proposal that depart from that precedent, PacifiCorp will also demonstrate that they are consistent with or superior to the *pro forma* OATT, and that the Commission’s clear policy objectives of Order No. 2003 and its progeny would be served by the adoption of this proposal for the PacifiCorp system.

Taken together, the improved queue process proposed in this filing will significantly benefit PacifiCorp’s Interconnection Customers and the generation development community as a whole. PacifiCorp respectfully suggests that the overall public interest is clearly served by this package of reforms, and urges the Commission to accept it without hearing.

Like PSCo, PacifiCorp commits to filing a report with the Commission within two years of the effective date of the enclosed tariff changes on the efficacy of the proposed changes. This informational report will include, among other things, a discussion on (1) the withdrawal penalty received, (2) the allocation of the withdrawal penalty, (3) the number of withdrawals, and (4) the timeline for processing requests, and any other informational reporting conditions the Commission may deem appropriate in ruling on this filing.

¹⁶ PSCo Order, 169 FERC ¶ 61,182; PNM Order, 136 FERC ¶ 61,231.

II. STANDARD OF REVIEW

The Commission will accept non-independent transmission provider variations from the *pro forma* LGIP and LGIA so long as the transmission provider can demonstrate that the variations are “consistent with or superior to” its final rules in Order Nos. 2003 and 2006.¹⁷ While many aspects of PacifiCorp’s queue reform filing depart from the *pro forma* interconnection procedures and, to a lesser extent, the *pro forma* small and large generator interconnection agreements, each of these aspects is superior to the *pro forma* provisions as applied to the PacifiCorp system, for the reasons discussed herein.

The Commission’s goal in Order No. 2003 was to “reduce undue discrimination and expedite the development of new generation while protecting reliability and ensuring that rates are just and reasonable.”¹⁸ The “serial” interconnection process set out in Order No. 2003 achieved the Commission’s articulated policy goals at that time. However, as the Commission has acknowledged, “[s]urges in the volume of new generation development are taxing the current queue management approach in some regions,” and “unprecedented demand in some regions for new types of generation, principally renewable generation, places further stress on queue management” because such generation can “be brought online more quickly than traditional generation.”¹⁹ The Order No. 2003 serial approach does not currently give PacifiCorp the tools it needs to effectively manage its existing interconnection queue. As PacifiCorp will demonstrate, these proposed reforms satisfy the “consistent with or superior to” standard.

As a non-independent transmission provider, PacifiCorp does not benefit from the independent entity variation standard, which allows Regional Transmission Organization and Independent System Operators (“RTOs and ISOs”) additional flexibility in proposing variations from the *pro forma* interconnection procedures and interconnection agreements to accommodate regional needs.²⁰ However, as will be explained in Section VII below, the proposed reforms are nonetheless just and reasonable because they: (1) are consistent with the Commission’s *PNM* and *PSCo* precedents; (2) are narrowly tailored to address a significant challenge, benefit customers, and adequately accommodate late-stage projects; (3) will make it easier for commercially viable projects to interconnect; (4) will foster wholesale competition, encourage new transmission, and benefit developers; and (5) will treat all Interconnection Customers in a non-discriminatory manner.

¹⁷ Order No. 2003 at P 825; *Standardization of Small Generator Interconnection Agreements and Procedures*, Order No. 2006, 70 Fed. Reg. 34,189, 34,236 (Jun. 13, 2005), FERC Stats. & Regs. ¶ 61,180, P 546 (2005) (“Order No. 2006”), *order on reh’g*, Order No. 2006-A, 70 Fed. Reg. 71,760 (Nov. 30, 2005), FERC Stats & Regs. ¶ 31,196 (2005), *order on clarification*, Order No. 2006-B, 71 Fed. Reg. 42,587 (July 27, 2006), FERC Stats. & Regs. ¶ 31,221 (2006).

¹⁸ Order No. 2003 at P 11. FERC articulated similar goals in Order No. 2006, including to reduce interconnection time and costs for both interconnection customers and transmission providers. Order No. 2006 at P 1.

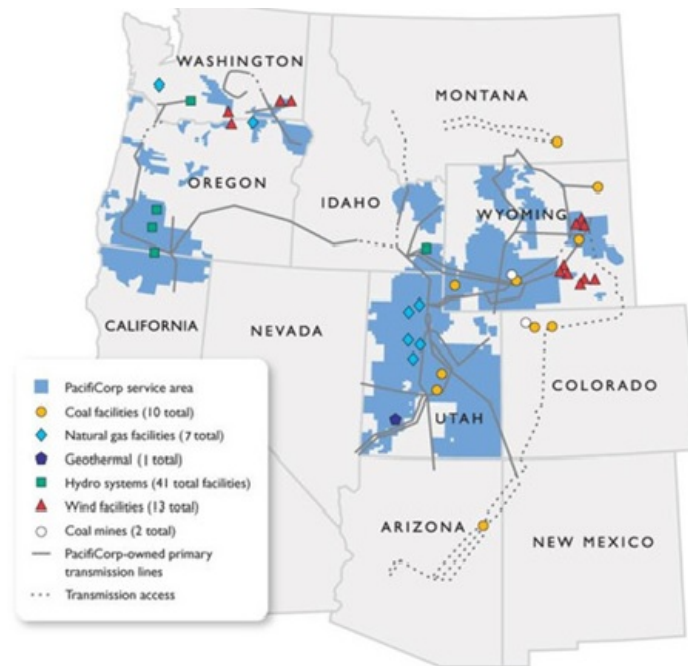
¹⁹ *Interconnection Queuing Practices*, 122 FERC ¶ 61,252 at P 3.

²⁰ Order No. 2003 at PP 822-27; Order No. 2003-A at P 759; *see also Interconnection Queuing Practices*, 122 FERC ¶ 61,252 at P 13.

III. BACKGROUND

A. PacifiCorp

PacifiCorp is an Oregon corporation and vertically-integrated utility primarily engaged in providing retail electric service to approximately 1.9 million residential, commercial, industrial, and other customers in portions of six states: California, Idaho, Oregon, Utah, Washington, and Wyoming. PacifiCorp provides electric transmission service in nine Western states, and owns or has interests in approximately 16,500 miles of transmission lines and 71 thermal, hydroelectric, wind-powered generating, and geothermal facilities. PacifiCorp provides open access transmission service in accordance with its OATT, which is on file with the Commission.



PacifiCorp operates two balancing authority areas (“BAAs”), PACE and PACW.

B. Current Interconnection Procedures and Need for Reform

PacifiCorp’s current interconnection procedures adopt the serial, first-come, first-served approach in the Commission’s *pro forma* LGIP and the *pro forma* LGIA.²¹ As FERC articulated in Order No. 2003 and 2003-A, its goals in developing a standard set of interconnection procedures and an interconnection agreement included expediting the development of new generation, facilitating market entry for competitive generation projects by reducing interconnection costs and timing, and encouraging needed investment in generator and

²¹ See *PacifiCorp*, 110 FERC ¶ 61,072 (2005); *PacifiCorp*, 107 FERC ¶ 61,318 (2004) (accepting in part and rejecting in part proposed substantive and non-substantive variations from the *pro forma* LGIP and LGIA); *PacifiCorp*, 106 FERC ¶ 61,258 (2004).

transmission infrastructure, all while ensuring that rates remain just and reasonable.²² For various reasons explained below, PacifiCorp's existing interconnection processes are no longer an effective tool to meet those goals.

As Mr. Vail discusses in his testimony, in recent years PacifiCorp has experienced an unprecedented level of generation Interconnection Requests that have rendered its existing interconnection queue processes inadequate to process the queue.²³ Although PacifiCorp's peak load is only approximately 12,600 MW, as of October 2019, 234 Interconnection Requests, representing 40,135 MW, currently sit in PacifiCorp's queue. Of those 234, 161 requests representing over 37,000 MW are FERC-jurisdictional requests under the LGIP. FERC-jurisdictional, Small Generator Interconnection Requests and state jurisdictional, large and small Interconnection Requests, account for the remaining 73 requests or 2,741 MW:²⁴

	Number of Interconnection Requests	Size of Interconnection Requests (MW)
FERC LGIP	161	37,393
All Others	73	2,741
Grand Total	234	40,135

PacifiCorp has experienced a steady increase in the number of Interconnection Requests, which is attributable primarily to the eligibility of solar and wind projects to receive certain tax credits if they are able to achieve commercial operation by a certain date.²⁵ However, the current backlog in the PacifiCorp interconnection queue not only relates to the increase in Interconnection Requests, but also to the serial nature of the interconnection study process. Under PacifiCorp's OATT and the Commission's *pro forma* OATT, the Transmission Provider must process each Interconnection Request in serial order, with each interconnection study starting with the baseline assumption that the following are in-service: (1) generators already directly interconnected to the system; (2) generators interconnected to affected systems that may have an impact on the request; (3) generators with a pending higher-queued Interconnection Request, including all of their associated network upgrade requirements; and (4) generators that no longer have a queue position but have an executed interconnection agreement.²⁶

This requirement to assume that all higher-queued projects and projects with executed contracts are in-service without regard to whether they are commercially viable frequently results in cascading re-studies of lower-queued Interconnection Requests when those higher-queued

²² Order No. 2003 at P 11-12.

²³ Vail Testimony at 7:3-9:11.

²⁴ Vail Testimony at 7:15.

²⁵ Vail Testimony at 9-10.

²⁶ See, e.g., PacifiCorp Tariff Sections 41.2, 42.3, 49.6 and 51; *Pro Forma* Large Generator Interconnection Procedures Sections 6.2 and 7.3; *Pro Forma* Small Generator Interconnection Procedures Sections 1.6 and 3.1-3.5.

projects withdraw from the queue. Approximately 75 percent of all Interconnection Requests submitted to PacifiCorp's interconnection queue withdraw before executing an interconnection agreement.²⁷ This means that re-studies due to withdrawals of higher-queued projects occur frequently.²⁸ Even when projects execute an interconnection agreement, Interconnection Customers may (and many do) suspend construction for up to three years. If projects with Network Upgrade responsibility suspend construction, then they effectively delay all other projects relying on those upgrades. And if the project ultimately drops out, the next Interconnection Customer may suspend and push out the commercial operation dates of subsequent projects.²⁹ Ultimately, using the serial-queue process when a transmission provider has received the magnitude of requests in PacifiCorp's current queue vastly undermines the value of completed studies, exponentially degrades the transmission provider's ability to effectively process the queue, and causes delays that create uncertainty for developers.

IV. DEVELOPMENT OF PACIFICORP'S QUEUE REFORM PROPOSAL

In developing this queue reform proposal, PacifiCorp considered and evaluated the queue reform efforts of other, similarly situated utilities and undertook a stakeholder process to seek input from the development community and from the states in which PacifiCorp operates. PacifiCorp is also responding to significant stakeholder feedback asking that queue reform be in place before PacifiCorp's 2020 RFP, as will be explained in Section IV.C, below.

A. Survey of Prior Interconnection Queue Reform Efforts

PacifiCorp began its queue reform efforts with a survey of the reforms of other, similarly situated utilities. PacifiCorp narrowed its focus to the recent queue reform efforts of PNM and PSCo, as utilities that do not participate in organized markets but that faced similar issues with serial, "first-come, first-served" interconnection processes, queue backlogs, and Interconnection Request volumes.³⁰ PacifiCorp built this interconnection queue reform proposal using concepts from these prior queue reform efforts, in combination with a robust stakeholder engagement process. As will be explained in greater detail below, many portions of this interconnection queue reform proposal are nearly identical to those the Commission has already approved in the PNM and PSCo interconnection queue reform proceedings.

B. Stakeholder Process

PacifiCorp first proposed possible revisions to its interconnection procedures on June 25, 2019, via notice posted to its Open Access Same-Time Information System ("OASIS") site. PacifiCorp then held the first of a series of stakeholder meetings on July 10, 2019, in Portland, Oregon, and by phone to define the issues being explored and the objectives of the stakeholder

²⁷ Vail Testimony at 11:5-9.

²⁸ Vail Testimony at 11:10-22, 12:1-5.

²⁹ Vail Testimony at 13-14.

³⁰ See generally *PNM Order* and *PSCo Order*; see also *Pub. Serv. Co. of Colo.*, 166 FERC ¶ 61,076 (2019), *on reh'g*, 167 FERC ¶ 61,141 (2019) (Docket No. ER19-366).

process. PacifiCorp also sought feedback on the need for interconnection queue reform and the form that any such reforms should take. EDP Renewables North America LLC, Renewable Northwest, Interwest Energy Alliance, Northwest & Intermountain Power Producers Coalition, Oregon Public Utility Commission Staff, Western Power Trading Forum (“WPTF”), First Solar, and E.ON submitted comments in response to PacifiCorp’s request for feedback.

PacifiCorp held a second stakeholder meeting on August 7, 2019, in Portland, Oregon, and by phone to review PacifiCorp’s current interconnection study assumptions and the comments from stakeholders received after the July 10 meeting.³¹ PacifiCorp posted a straw proposal for potential reforms to its large generator interconnection queue process on September 10, 2019. PacifiCorp held a third stakeholder meeting on September 11, 2019 at the Wyoming Public Service Commission office in Cheyenne, Wyoming, and by phone, to review the straw proposal and to discuss in more detail what interconnection queue reforms might look like.³² At that meeting, PacifiCorp and stakeholders extensively discussed the application of a “first-ready, first-served” approach to all Interconnection Customers in the queue. PacifiCorp again requested stakeholder feedback on the straw proposal and certain key issues, including: transitioning to a “first-ready, first-served” interconnection queue; whether projects should be able to provide cash payments or in lieu of demonstrating site control or commercial readiness; and the impacts of queue reform on PacifiCorp’s current interconnection queue.³³

Able Grid Energy, E.ON, EDF Renewable Energy, Enyo Renewable Energy (“Enyo”), First Solar, Renewable Northwest, Interwest Energy Alliance, Utah Clean Energy, Intermountain Wind, LLC, Northwest & Intermountain Power Producers Coalition, Power Company of Wyoming, LLC, Solar Frontier, and WPTF submitted comments in response to PacifiCorp’s request for feedback.

PacifiCorp held a fourth interconnection queue reform stakeholder meeting on October 9, 2019 in Portland, Oregon, in PacifiCorp’s Salt Lake City, Utah office, and by phone. The meeting again focused on key issues related to interconnection queue reform, including: transitioning to a “first-ready, first-served” approach; whether to provide cash or financial security options in lieu of a demonstration of site control or commercial readiness; withdrawal penalty amounts; study assumptions; whether reforms should extend to the Small Generator Interconnection Procedures (“SGIP”) and state jurisdictional interconnections; and aligning queue reform with PacifiCorp’s 2020 RFP. Attendees in both locations and by phone included representatives of: Avangrid, Clenera, E.ON, Ecoplexus, EDF Renewable Energy, Energy GPS LLC, Enyo, First Solar, Transco

³¹ Attendees at PacifiCorp’s August 7, 2019 interconnection queue reform stakeholder meeting in Portland and by phone included: Avangrid, E.ON, Ecoplexus, EDP Renewables, Energy Strategies, First Solar, Interwest Energy Alliance, Oregon Public Utility Commission, Renewables Northwest, sPower, Tilghman Associates, Transco Energy, Utah Association of Energy Users, Utah Clean Energy, Utah Division of Public Utilities, and the Utah Public Service Commission.

³² Discussion at the September 11, 2019 stakeholder meeting was informed by Public Service Company of Colorado’s September 9, 2019 application seeking FERC approval for interconnection queue reforms in Docket No. ER19-2774-000.

³³ PacifiCorp, Request for Written Comments (Sept. 19, 2019), available at: https://www.oasis.oati.com/woa/docs/PPW/PPWdocs/PacifiCorp_Queue_Reform_Request_for_Stakeholder_Comments.pdf.

Energy, Innergex, Intermountain Wind, Renewable Northwest, rPlus Energies, Sanger Law/Intermountain Wind, Snell & Wilmer LLP, Solar Energy, Solar Frontier Americas Development, sPower, the Anschutz Corporation/Power Company of Wyoming, Tormoen Hickey LLC/A New West Law Firm, Utah Division of Public Utilities, Utah Office of Consumer Services, and the Wyoming Public Service Commission.

After these stakeholder meetings, and taking into account the feedback received, PacifiCorp developed a revised queue reform straw proposal and posted the revised proposal to its OASIS for stakeholder review and comment on October 28, 2018. PacifiCorp received feedback on its Revised Proposal from BayWa, r.e., BluEarth Renewables US, LLC (“BluEarth”) jointly with Innergex Renewable Energy, Inc., Broad Reach Power LLC (on behalf of subsidiary VK Clean Energy Partners), Clenera, Ecoplexus, Enyo, Intermountain Wind LLC, Renewable Northwest jointly with the Interwest Energy Alliance, Northwest & Intermountain Power Producers Coalition (“NIPPC”), RWE Renewables Americas (“RWE”), State of Utah Department of Commerce, Office of Consumer Services, Utah Association of Energy Users, WPTF, and PacifiCorp’s resource planning business unit. Stakeholders demonstrated continued support for PacifiCorp’s efforts to reform its interconnection procedures and provided specific feedback on how to more effectively balance the interests of project developers already in the queue with the interest of all developers in clearing the queue of non-viable projects and making the interconnection process more manageable and less susceptible to delays.

PacifiCorp carefully considered this feedback to develop a Second Revised Straw Proposal, which it posted to OASIS on November 27, 2019. BluEarth, Enyo, Renewable Northwest jointly with the Interwest Energy Alliance, Intermountain Wind, NIPPC, 8minute Solar Energy, RWE and WPTF submitted comments on PacifiCorp’s Second Revised Straw Proposal. PacifiCorp is filing the instant interconnection queue reform proposal after taking these comments into consideration and making adjustments to its proposal where indicated below. Copies of the strawmen, comments, and attendance lists for the stakeholder meetings are available on OASIS at <https://www.oasis.oati.com/ppw/index.html>, under “Interconnection Queue Reform 2019.”

To be clear, the enclosed reforms depart in some ways from the last posted straw proposal as PacifiCorp considered the final round of stakeholder feedback.

C. Timing of PacifiCorp’s Queue Reform Proposal and Relationship to All-Source RFP

PacifiCorp and its stakeholders have discussed at length whether and how to align the timing of the instant queue reform proposal with the timing of PacifiCorp’s upcoming 2020 RFP. Some stakeholders have pointed to the approach taken by PSCo to align its past queue reform efforts with its resource procurements and urged PacifiCorp to do the same.³⁴ Other stakeholders noted that it would be harmful to the development community if the timing of queue reform is not

³⁴ For example, NIPPC also observed that PSCo’s queue reforms dovetailed with resource procurement efforts and its members would support PacifiCorp taking a similar approach. See Northwest & Intermountain Power Producers Coalition Comments re PacifiCorp Interconnection Queue Reform at 2 (Oct. 2, 2019).

properly aligned with the commercial opportunity presented by the 2020 RFP.³⁵ This is particularly true because, as has been noted by stakeholders, being selected in PacifiCorp's resource procurement function's RFP may be the primary means by which certain projects in the queue demonstrate commercial readiness, particularly for the Transition Process. Consequently, PacifiCorp urges the Commission to grant the requested April 1, 2020 effective date for the enclosed reforms.

V. PROPOSED TARIFF REVISIONS: PROSPECTIVE INTERCONNECTION PROCESS

PacifiCorp's proposed *prospective* interconnection reforms (as distinct from the Transition Process) are premised on a clustered interconnection study process that will study projects in groups based upon geographic and other factors (the proposed Transition Process is addressed in Section VI below). Cluster Request Windows will open annually, and Large Generator Interconnection Customers—but *not* Small Generator Interconnection Customers—will need to (1) demonstrate commercial readiness and Site Control to be included in the Cluster or (2) pay an appropriate "in lieu of" payment. If a large project withdraws from a Cluster, it will be subject to withdrawal penalties, which increase in magnitude the later in the process it withdraws. For those projects that cannot yet satisfy the requirements to enter a Cluster, but wish to gather information about potential interconnection costs and timing, PacifiCorp will offer an Informational Study.

These reforms are designed to minimize the potential for future backlog by streamlining the study process through clustering and providing incentives designed to discourage non-ready projects from cluttering the process.

A. Interconnection Queue

The main feature of PacifiCorp's interconnection cluster approach is its prioritization of commercial readiness over queue position in the interconnection process—i.e., a change from a "first-come, first-served" to a "first-ready, first-served" approach. To do this, PacifiCorp proposes to require a large generator developer to demonstrate sufficient progress toward commercial operation before submitting a formal Interconnection Request and entering a Cluster. As FERC recognized in its 2008 Technical Conference order, increasing the requirements for obtaining a queue position in this way will "increase the likelihood that only projects that are likely to be commercially viable" enter the interconnection process.³⁶

As will be explained in further detail below, Large Generator Interconnection Customers that demonstrate commercial readiness by meeting one of several commercial readiness criteria, or providing a refundable deposit in lieu of showing commercial readiness, will enter the Cluster.

³⁵ See, e.g., Power Company of Wyoming, LLC, Comments in Response to PacifiCorp's Sept. 20, 2019 Request for Comments 3 ("[f]or many of these generators, the RFP initiative by PacifiCorp's [resource] function represents the primary—if not only—opportunity for commercial viability . . . PacifiCorp should consider seeking expedited review by FERC of any queue reform to be put in place before the next RFP."); see also EDF Renewables LLC, Comments to PacifiCorp Interconnection Reform at 2 (Oct. 4, 2019) ("[a]lignment of the cluster study process with the RFP process would be ideal.").

³⁶ *Interconnection Queuing Practices*, 122 FERC ¶ 61,252 at P 16.

Small Generator Interconnection Customers will not be required to demonstrate commercial readiness in the prospective process or the Transition Process, but the requests will be clustered and studied along with Large Generators. Cluster Studies will consist of power flow, stability and short circuit studies, without regard to queue position. Cluster Study reports will then issue, and if Interconnection Customers withdraw or there are other changes to the study assumptions that require re-studies, PacifiCorp will repeat the power flow, stability and short circuit analyses for the modified Cluster. Projects will then be required to make an additional commercial readiness showing or provide financial security for Network Upgrades, and will be required to demonstrate Site Control before entering the Facilities Study Phase. After Facilities Study Reports issue, projects will proceed to LGIA negotiation and execution. While Interconnection Customers may withdraw from the Interconnection Queue at any time, withdrawals will be subject to increasing penalties as the process progresses.

1. Studying Large and Small Generators in the Same Clusters

PacifiCorp proposes studying large and small generators together in the same clusters in a manner consistent with current practice. As Mr. Vail observes in his testimony:

[I]n PacifiCorp's experience, most small generators are susceptible to the same issues as large generators and require the same solutions. For example, if siting behind a transmission constraint or a weak part of the system, a small generator may require a significant network upgrade that it is incapable of funding. The small generator will be stuck waiting for completion of upgrades triggered by higher-queued requests, leading to the lengthy backlogs that plague the interconnection queue today.³⁷

To facilitate prompt processing of small generator requests that may require upgrades, and that may otherwise be subject to the same system constraints as large generating facilities, PacifiCorp proposes to include small generators that are subject to the SGIP study process in the same Cluster Studies as large generators.³⁸ In other words, just as large and small generators are studied in the same queue under PacifiCorp's currently-effective OATT, they will continue to be studied together in the Cluster Study Process. PacifiCorp believes that processing small generators serially and large generators in clusters would be unworkable and would contribute to the confusions and delays currently being experienced.

While Large Generator Interconnection Requests will be required to meet certain commercial readiness criteria or provide a deposit in lieu of commercial readiness, Small Generator Interconnection Requests will not. Under the current queue, large generators (those with an output in excess of 20 MW) constitute far more of the backlog than do small generators. Large generation projects represent 161 requests for over 37,000 MW of interconnection service in the current queue, whereas all other kinds of projects (projects subject to the SGIP or state interconnection processes) represent 73 requests for 2,741 MW of interconnection service. Thus,

³⁷ Vail Testimony at 27:9-14.

³⁸ PacifiCorp Proposed Tariff Sections 51.1(Applicability), 51.4 (Cluster Study).

it is appropriate to apply a gating mechanism (in the form of commercial readiness) to the large generators before they can be included in a cluster study, in the hopes of eliminating this kind of backlog going forward.³⁹ Many small generators are subject to nascent state programs, and the application of stringent readiness criteria may have a disproportionately impact the development of those resources. (PacifiCorp will revisit this issue over time.) Additionally, the proposed combined Cluster study approach only applies to small generating facilities that are subject to the study procedures in PacifiCorp's SGIP,⁴⁰ thereby preserving the optionality for small generating facilities to proceed through the "fast track" or inverter processes if they otherwise qualify.

Thus, with the exception of the combined Cluster process for certain small generating facilities, PacifiCorp will maintain FERC's separate Order No. 2003 and 2006 interconnection processes for large and small generators. This strategy will comply with FERC's creation of separate procedures for small and large generators and existing authority in PacifiCorp's Tariff to use cluster studies,⁴¹ but also ensure prompt processing of small generator requests that are otherwise eligible for the "fast track" or inverter processes. Inclusion of this subset of small large generators in the same Clusters as large generators will be consistent with or superior to the *pro forma* SGIP and LGIP because it will improve the efficiency of the interconnection process for both small and large generators and, thus, equally address the challenges facing both types of projects.

The changes to the SGIP included herein are minor, to indicate that, where appropriate, small generating facilities will be included in the overall Cluster Study process. The "fast track" or inverter processes will still apply for small generating facilities that qualify.

2. Interconnection Request Submission

Section 38.4.1 of the revised Large Generator Interconnection Procedures lists the required items necessary for large generators to submit a valid Interconnection Request.⁴² Similar to the Interconnection Request submission procedures approved in PSCo's queue reform proceeding,⁴³ PacifiCorp will require Large Generator Interconnection Customers to submit: (a) a study deposit; (b) a demonstration of Site Control or a \$10,000 deposit in lieu of demonstrating site control; and (c) one of several commercial readiness criteria, including the option to provide a refundable deposit in lieu of showing commercial readiness. Interconnection Customers will also be required to submit a completed application in the form of Appendix 1 to the revised

³⁹ Vail Testimony at 7:13-16; 20:13.

⁴⁰ PacifiCorp Proposed Tariff Section 51.1 (stating that the study process in Section 51 applies to a "Small Generating Facility (1) is larger than 2 MW but no larger than 20 MW, (2) is not certified, or (3) is certified but did not pass the Fast Track Process or the 10 kW Inverter Process.").

⁴¹ PacifiCorp Proposed Tariff Sections 39.2 and 49.7.

⁴² Except for the limited revisions noted herein, PacifiCorp's currently-effective SGIP will continue to control Interconnection Requests for small generators.

⁴³ *PSCo Order* at P 49; PSCo LGIP Section 3.4.1. Unlike PSCo, PacifiCorp does not have a separate financial security requirement as part of a valid interconnection request, but is similarly providing the option for Interconnection Customers to submit a refundable deposit in lieu of showing site control and/or commercial readiness.

interconnection procedures, including the generating facility size and requested amount of interconnection service, if less than the generating facility's capacity; all technical specifications required to study the Interconnection Request; and the definitive point of interconnection to be studied.

As with PacifiCorp's current interconnection process, an Interconnection Request will not be considered valid until all of the above information has been submitted. Customers also retain the ability to correct any deficiencies in their interconnection requests, provided that they do so before the close of the Cluster Request Window.⁴⁴

a. Study Deposit and Study Cost Allocation

PacifiCorp will require study deposits for large generators in the following amounts, equal to those approved in PSCo's and PNM's revised LGIPs.⁴⁵ Study deposits will apply to both the Cluster Study and the individual Facilities Study.⁴⁶

Size of Project Associated with Interconnection Request	Amount of Deposit
Less than 50 MW	\$75,000
Greater than 50 MW, but less than 200 MW	\$150,000
200 MW or greater	\$250,000

For both large and small generators in a Cluster, PacifiCorp will determine each project's share of the actual Cluster Study costs by allocating: (1) 50 percent of the applicable study costs to projects on a per capita basis based on the number of Interconnection Requests in the Cluster; and (2) 50 percent of the applicable study costs on a pro rata basis based on project size (MW).⁴⁷ If a project's study deposit amount is greater than its actual share of study costs, excess funds will either be applied to the Interconnection Customer's Individual Interconnection Facility Study costs, or refunded following the issuance of the Facilities Study Report.⁴⁸ If an Interconnection Customer withdraws, study costs will be calculated up to the last study phase in which the Interconnection Customer participated in, and the remainder of the unused study deposits net of applicable withdrawal fees will be refunded.⁴⁹ The refundable amount will be any amount that

⁴⁴ PacifiCorp Proposed Tariff Section 38.4.3.

⁴⁵ *PSCo Order* at P 36; *PNM Order* at P 80.

⁴⁶ PacifiCorp Proposed Tariff Section 38.1.

⁴⁷ PacifiCorp Proposed Tariff Sections 39.2.2 and 51.4.2. See also Vail Testimony at 28-29 for an example of this study cost allocation.

⁴⁸ PacifiCorp Proposed Tariff Section 48.3.1.

⁴⁹ *Id.*

exceeds both the withdrawal penalty and the Interconnection Customer's share of PacifiCorp's incurred costs (e.g., study costs), including interest.⁵⁰

This study cost allocation method is identical to the method approved by the Commission as just and reasonable in PSCo's and PNM's queue reform proceedings.⁵¹ In addition, the refund policy is identical to PNM's refund method, and is also similar to the process Arizona Public Service Company proposed, and the Commission accepted, in Docket No. ER11-4437.⁵²

b. Demonstration of Site Control

Consistent with its currently-effective LGIP provisions,⁵³ PacifiCorp proposes to require Large Generator Interconnection Customers to either demonstrate Site Control as part of their Interconnection Request submission, or to provide a \$10,000 deposit in lieu of showing Site Control. Small Generator Interconnection Customers will continue to be required to submit documentation of site control with their Interconnection Request in accordance with PacifiCorp's SGIP.⁵⁴

To ensure that only those projects that are making progress toward commercial readiness continue through the Cluster Study process, Large Generator Interconnection Customers that provided the \$10,000 deposit in lieu of showing Site Control will be required to demonstrate actual Site Control before proceeding to the Facilities Study stage, with no option to provide any additional deposit.⁵⁵ To provide project developers with flexibility, PacifiCorp will also permit Interconnection Customers to propose alternative specifications for site size to those posted on OASIS, consistent with the Site Control requirements approved by the Commission in PNM's and PSCo's queue reform proceeding.⁵⁶

⁵⁰ PacifiCorp Proposed Tariff Section 48.3.2.

⁵¹ *PSCo Order* at P 36 ("PSCo's proposed study cost allocation methodology strikes a reasonable balance between capacity-related costs and costs that are attributable to the number of individual generating facilities."); *PNM Order* at P 86 ("[W]e agree with PNM's proposed method to allocate costs for studies . . . among cluster study participants. We find that allocating 50 percent of an interconnection customer's study costs based on the number of interconnection requests in a cluster, and 50 percent based on the interconnection customer's requested capacity strikes a reasonable balance between capacity-related costs and those costs which are independent of the capacity of the individual generating facilities.").

⁵² PNM LGIP Section 12.3, Obligation for Study Costs; see also *Ariz. Pub. Serv. Co.*, 137 FERC ¶ 61,099, P 12-13 (2011) (finding APS's proposal to apply study deposit funds to the cost of re-studies required by the withdrawal, and to return any remaining deposit funds to the withdrawing customer as consistent with or superior to the *pro forma* LGIP.).

⁵³ See PacifiCorp Tariff Section 38.4.1 (requiring demonstration of Site Control or \$10,000 deposit to initiate an interconnection request).

⁵⁴ PacifiCorp Proposed Tariff Section 49.5.

⁵⁵ PacifiCorp Proposed Tariff Section 43.1(b).

⁵⁶ *PNM Order* at P 81; *PSCo Order* at P 58; PNM LGIP Section 3.3.1(iii); PSCo LGIP Section 3.4.1(c).

In addition to proposing several new and revised definitions in support of these reforms,⁵⁷ PacifiCorp proposes to modify the definition of “Site Control” contained in the *pro forma* LGIP as follows. This proposed definition is consistent with the definition that FERC approved in PSCo’s queue reform proceeding, but unlike PSCo and at the request of PacifiCorp’s stakeholders, does not require Interconnection Customers to demonstrate Site Control with respect to Interconnection Customer’s Interconnection Facilities.⁵⁸ The text below shows a comparison against the currently-effective definition and PacifiCorp’s proposal:

Site Control shall mean ~~documentation reasonably demonstrating the exclusive land right to develop, construct, operate, and maintain the Generating Facility over the term of expected operation of the Generating Facility. Site Control may be demonstrated by documentation establishing:~~ (1) ownership of, a leasehold interest in, or a right to develop a site ~~for the purpose of constructing of sufficient size to construct and operate~~ the Generating Facility; (2) an option to purchase or acquire a leasehold ~~site for such purpose; or (3) an exclusivity or other business relationship between~~ interest in a site of sufficient size to construct and operate the Generating Facility; ~~or (3) any other documentation that clearly demonstrates the right of the~~ Interconnection Customer ~~and the entity having the right to sell, lease or grant~~ ~~Interconnection Customer the right to possess or occupy a site for such purpose~~ to exclusively occupy a site of sufficient size to construct and operate the Generating Facility. Site Control for any co-located project is demonstrated by a contract or other agreement demonstrating shared land use for all co-located projects that meet the aforementioned provisions of this Site Control definition.

This modified language differs from the definition of Site Control in PacifiCorp’s current LGIP⁵⁹ in two material respects. First, consistent with reforms that FERC accepted in PSCo’s and PNM’s queue reform proceedings, the site must be of “sufficient size” to construct the generating facility. PacifiCorp will approve reasonable alternative site size specifications proposed by the Interconnections Customer, supported by an engineer’s certificate demonstrating

⁵⁷ See generally PacifiCorp Proposed Tariff Section 36.

⁵⁸ *PSCo Order* at P 58. PacifiCorp received feedback from stakeholders explaining that because Interconnection Customer’s Interconnection Facilities (“ICIF”) is typically not finalized until late in a project’s development, including ICIF in the definition of Site Control would reduce flexibility for developers and present an unnecessary hurdle to completing the interconnection process. PacifiCorp removed ICIF from its definition of Site Control. See Western Power Trading Forum Comments on PacifiCorp’s Interconnection Queue Reform Straw Proposal at 4 (Oct. 3, 2019); Western Power Trading Forum Comments on PacifiCorp’s Interconnection Queue Reform Revised Straw Proposal Dated October 28, 2019 (Nov. 14, 2019); Western Power Trading Forum Comments on PacifiCorp’s Interconnection Queue Revised Straw Proposal Dated November 27, 2019 at 2-3 (Dec. 9, 2019).

⁵⁹ PacifiCorp’s currently-effective Tariff defines Site Control as “(1) ownership of, leasehold interest in, or a right to develop a site for the purpose of constructing the Generating Facility; (2) an option to purchase or acquire a leasehold site for such purpose; or (3) an exclusivity or other business relationship between Interconnection Customer and the entity having the right to sell, lease or grant Interconnection Customer the right to possess or occupy a site for such purpose.” (emphasis added).

site size adequacy if PacifiCorp and the Interconnection Customer cannot agree on adequate site size.

Second, to avoid multiple project developers from identifying the same site when only one generation project can fit on the site, the revised definition requires all Interconnection Customers to demonstrate an exclusive right to occupy the site. Doing so will prevent a situation where projects cannot continue through the interconnection process because they could not successfully secure needed site control. In addition, co-located projects can meet this exclusivity requirement by providing a contract or other agreement demonstrating shared land use.

c. Commercial Readiness Criteria

As explained above, the primary attribute of the new Cluster study process is that, in the case of Large Generator Interconnection Customers, it will only be open to such Customers that can demonstrate commercial readiness by satisfying one of the following commercial readiness criteria:⁶⁰

1. An executed term sheet (or comparable evidence) related to a contract for sale of (i) the constructed Generating Facility to a load-serving entity or to a commercial, industrial, or other large end-use customer; (ii) the Generating Facility's energy where the term of sale is not less than five years; or (iii) the Generating Facility's ancillary services if the Generating Facility is an electric storage resource where the term of sale is not less than five years;
2. An executed contract binding upon the parties for sale of (i) the constructed Generating Facility to a load-serving entity or to a commercial, industrial, or other large end-use customer; (ii) the Generating Facility's energy where the term of sale is not less than five years; or (iii) the Generating Facility's ancillary services if the Generating Facility is an electric storage resource where the term of sale is not less than five years;
3. Reasonable evidence that the project has been selected in a procurement process by or for a load-serving entity, is being developed by a load-serving entity,⁶¹ or is being developed for purposes of a sale to a commercial, industrial, or other large end-use customer; or
4. A refundable deposit of \$3,000 per MW of requested interconnection service in lieu of showing commercial readiness.

Each criterion that PacifiCorp proposes above has previously been accepted by the Commission in PSCo's and PNM's queue reform proceedings.⁶² For a "first-ready, first-served"

⁶⁰ PacifiCorp Proposed Tariff Section 38.4.1(v).

⁶¹ Generating Facilities being developed by a load-serving entity may submit a site-specific purchase order for generating equipment or statement signed by the Interconnection Customer attesting that the facility will be supplied with generating equipment (e.g. turbines) with a manufacturer's blanket purchase agreement. PacifiCorp Proposed Tariff Section 38.4.1(v)(c).

⁶² PNM LGIP Sections 7.1.f.ii, 7.1.f.iii; PSCo LGIP Sections 3.4.1.g, 7.7.3, 7.7.4; *PSCo Order* at P 50.

interconnection process to be successful, developers should not ultimately be able to pay to bypass the commercial readiness criteria and claim interconnection capacity at the expense of other projects that are commercially viable and ready to proceed through the interconnection process. Thus, stringent commercial readiness criteria are required to mitigate the risk of returning to a clogged queue. At the same time, PacifiCorp recognizes the need to provide generation developers with flexibility in the interconnection process, especially at the beginning stages of the process when developers are pursuing both an interconnection agreement and negotiating with potential buyers and offtakers. These options are appropriate because they recognize the methods by which load-serving entities in the West procure generation and how projects obtain financing.

In addition, to give project developers the option to proceed through the Cluster process and obtain final interconnection costs before committing to binding PPA pricing, PacifiCorp is also providing the option to submit a refundable deposit of \$3,000 per MW in lieu of showing commercial readiness at the time the Interconnection Request is submitted. Although the \$3,000 per MW figure is higher than the \$2,000 per MW security deposit required by PNM,⁶³ the \$2,000 per MW value was developed by PNM approximately nine years ago. PacifiCorp believes that the \$2,000 amount will not adequately ensure that only those projects that are moving toward commercial readiness enter PacifiCorp's reformed interconnection queue, and therefore has proposed to update this figure to \$3,000 per MW. PacifiCorp's system is significantly larger and therefore provides much larger and extensive interconnection opportunities therefore the higher entry fee is just and reasonable. However, PacifiCorp is willing to accept the already-approved \$2,000 per MW figure if the Commission does not agree that the updated amount is just and reasonable.⁶⁴

To execute a Facilities Study Agreement after the Cluster Study, projects that submitted a \$3,000 per MW deposit must submit financial security equal to the Interconnection Customer's liability for funding Network Upgrades associated with its interconnection, net of the deposit already provided. For example, a proposed 100 MW project that cannot demonstrate commercial readiness may enter the Cluster by providing a deposit of \$300,000.⁶⁵ As a result of the Cluster Study, \$1 million in Network Upgrade costs is allocated to that project. If that project proceeds through the study process and still cannot demonstrate commercial readiness by the time it is to execute a Facilities Study Agreement, then the developer would have to provide financial security in the amount of \$700,000 (the amount of its Network Upgrade allocation net of the "in lieu of" deposit already provided). The deposit would be refunded and the financial security released upon the earlier of: (1) the Interconnection Customer providing a form of commercial readiness other than the in-lieu-of payment; (2) the Interconnection Customer withdrawing from the queue and paying any required Withdrawal Penalties; (3) the Interconnection Customer terminating its

⁶³ PNM LGIP Section 7.1(f)(i).

⁶⁴ Under *NRG Power Mktg., LLC v. FERC*, 862 F.3d 108, 114-15 (D.C. Cir. 2017), the Commission may propose modifications to a rate filing when the utility consents to the modifications.

⁶⁵ To facilitate this reform, PacifiCorp proposes a new definition for Financial Security in Section 36 of its Proposed Tariff: "Financial Security shall mean any of the forms of collateral or security listed in Section 2 of the Creditworthiness Procedures included in Attachment L to this Tariff."

executed LGIA before achieving Commercial Operation, pursuant to LGIA Article 2.3 or applicable termination procedures, and paying any required Withdrawal Penalties; or (4) the project achieving Commercial Operation (subject to up-front funding requirements for Network Upgrades).⁶⁶ This additional financial requirement in lieu of showing commercial readiness to execute the Facilities Study Agreement is also similar to language the Commission has already approved in PNM's queue reform proceeding.⁶⁷

Additionally, in response to feedback from stakeholders, PacifiCorp is providing the option for generators being developed by load-serving entities to submit a site-specific purchase order or a signed statement attesting that the facility will be supplied with generating equipment with a manufacturer's blanket purchase agreement.⁶⁸ This proposal is consistent with language proposed in PNM's queue reform efforts and approved by the Commission in 2011.⁶⁹

Providing flexibility with respect to the commercial readiness criteria at the beginning of the interconnection process, in combination with assessing increasing withdrawal penalties as explained in Section V.A.7 below, will balance the needs of individual developers to have flexibility in PPA negotiations with the need of the interconnection queue as a whole to mitigate the risk of developers paying to bypass commercial readiness standards and thereby preventing PacifiCorp from clearing projects from its queue.⁷⁰ As a result, this proposal to permit Interconnection Customers to proceed through the interconnection process and to sign an Interconnection Agreement by providing deposits in lieu of showing commercial readiness is contingent on PacifiCorp's withdrawal penalty proposal below.

PacifiCorp will closely monitor how many Large Generator Interconnection Requests enter future Clusters by providing a deposit in lieu of showing commercial readiness to determine if this flexibility materially degrades the "first-ready, first-served" approach. If so, PacifiCorp will seek to address this issue by filing future tariff changes with the Commission.

3. Cluster Request Window and Customer Engagement Window

PacifiCorp will accept Interconnection Requests from large generators and small generators (other than those participating in the "fast track" or inverter processes) during an annual 45-Calendar Day Cluster Request Window. The first prospective 45-day Cluster Request Window will open on the first April 1st that occurs after commencement of the Transition Process,

⁶⁶ PacifiCorp Proposed Tariff Section 48.3.3.

⁶⁷ PNM LGIP Section 7.7(a).

⁶⁸ PacifiCorp Proposed Tariff Section 38.4.1(v)(c).

⁶⁹ PNM LGIP Section 7.1(f)(v).

⁷⁰ As will be explained in Section VI below, PacifiCorp is not including a deposit option in the Transition Process because of the urgent need to clear out the queue and prioritize interconnection capacity for projects that can meet non-financial commercial readiness criteria.

and annually every April 1st thereafter.⁷¹ If the Commission timely accepts this queue reform proposal, then the initial prospective Cluster Request Window will open April 1, 2021.

The Commission has accepted the Cluster Request Window concept in PNM's and PSCo's queue reform proceedings.⁷² Unlike PNM and PSCo, however, PacifiCorp proposes to open request windows annually (rather than semiannually). Doing so will ensure that Cluster Studies are complete or near-complete before the next Cluster Request Window opens, allowing PacifiCorp to process incoming Interconnection Requests efficiently and in a timely manner. PacifiCorp's system is significantly larger than those of some transmission providers who open cluster windows every six months, and the increased interconnection demand faced by PacifiCorp places significant strain on the study process. Ensuring that prior studies are complete before proceeding to the next study is a critical component of increasing the certainty provided by interconnection studies and significantly limiting the risk of re-studies. Opening Cluster Request Windows annually on April 1st also mirrors the neighboring California Independent System Operator Corp.'s ("CAISO's") Interconnection Request process.⁷³ Because many of the same project developers operate in PacifiCorp's BAAs, mirroring the CAISO's process will facilitate a smooth transition to the "first-ready, first-served" process.

Interconnection Customers submitting valid requests within the Cluster Request Window will be accepted into a Cluster and, as in PacifiCorp's currently-effective interconnection procedures in addition to PNM's and PSCo's clustering procedures, will be assigned an individual queue position based on the time of receipt of the valid request.⁷⁴ All Interconnection Requests accepted in to a single Cluster Request Window will be considered equally-queued for the purposes of the Interconnection Cluster Study.⁷⁵

PacifiCorp will conduct separate Cluster Studies in different areas within the two PacifiCorp BAAs based on geographical and/or electrical relevance, among other factors ("Cluster Areas").⁷⁶ Following the close of the Cluster Request Window, PacifiCorp will post to its OASIS site a draft plan for the Cluster Study, including a map and table defining the Cluster Areas assigned to each Interconnection Request for discussion during the Scoping Meeting.⁷⁷ This will inform Interconnection Customers of other projects seeking to interconnect in that Cluster, and to

⁷¹ PacifiCorp Proposed Tariff Section 39.2.1.

⁷² PNM LGIP Section 7.4; PSCo LGIP Section 7.3, 7.4.

⁷³ CAISO Tariff Appendix DD, Section 3.3.1. See *California Independent System Operator Corporation*, 140 FERC ¶ 61,070 (2012) (approving CAISO's shift from 6-month to annual cluster windows).

⁷⁴ See PacifiCorp Tariff Section 39.1.; PNM LGIP Section 4.1.1; PSCo LGIP Section 4.1. An interconnection customer's individually-assigned queue position will have no bearing on the allocation of costs identified in the applicable Cluster Study. PacifiCorp Proposed Tariff Section 39.1.2.

⁷⁵ *Id.* at Section 39.1.2.

⁷⁶ PacifiCorp Proposed Tariff Section 42.4.

⁷⁷ *Id.*

assist in the estimation of the potential scope of Network Upgrade costs given the number and size of other interconnection projects in the Cluster.

During the 30-Calendar Day period after the close of the Cluster Request Window, termed the Customer Engagement Window,⁷⁸ PacifiCorp will hold a Scoping Meeting with Interconnection Customers to discuss alternative interconnection options, to exchange information including any transmission data that would reasonably be expected to impact such interconnection options, and to analyze such information. PacifiCorp will post an updated Cluster Area map and final Cluster Study plan on OASIS by no later than the end of the Customer Engagement Window.⁷⁹

Large and Small Interconnection Customers must execute the Cluster System Impact Study Agreement and deliver the executed agreement to PacifiCorp by the end of the Customer Engagement Window.⁸⁰ All valid Interconnection Requests that have executed a Cluster System Impact Study Agreement will be included in the Cluster System Impact Study.⁸¹

4. Prospective Cluster Study Process

Upon the close of the Customer Engagement Window, PacifiCorp will use Reasonable Efforts to complete the Cluster Study within 150 Calendar Days. Within this same time period, PacifiCorp may perform Cluster Studies by Cluster Area to evaluate the cumulative reliability effect on the system of all proposed, commercially ready large and small generators in the Cluster, and to identify the Network Upgrades required to interconnect all projects in the Cluster, broken out and assigned by Cluster Area. PacifiCorp will then conduct individual Facilities Studies before proceeding to LGIA negotiation and execution. As explained further in the following subsections, this process will take place in phases based on the study process in PacifiCorp's current OATT, and will proceed with the following steps:

1. Cluster Study, i.e., power flow, stability, and short circuit analyses. These analyses will determine what Interconnection Facilities and Network Upgrades are required for interconnection and will provide Interconnection Customers with an initial estimate of the cost to interconnect.
2. Cluster Study Reports issued and customer meeting held upon completion of a Cluster Study.
3. Re-Studies. If Interconnection Customers withdraw after the Cluster Study report is published, or if there are other changes to study assumptions that require re-studies, PacifiCorp will evaluate and, if necessary, repeat the power flow, stability, and short circuit

⁷⁸ The Customer Engagement Window is also a concept that FERC approved in PSCo's queue reform proceeding. See PSCo LGIP Section 4.2.1.

⁷⁹ PacifiCorp Proposed Tariff Section 42.4. PacifiCorp will also hold individual, customer-specific Scoping Meetings upon request. See PacifiCorp Proposed Sections 42.2 (Customer Engagement Window); 38.4.4 (Scoping Meeting).

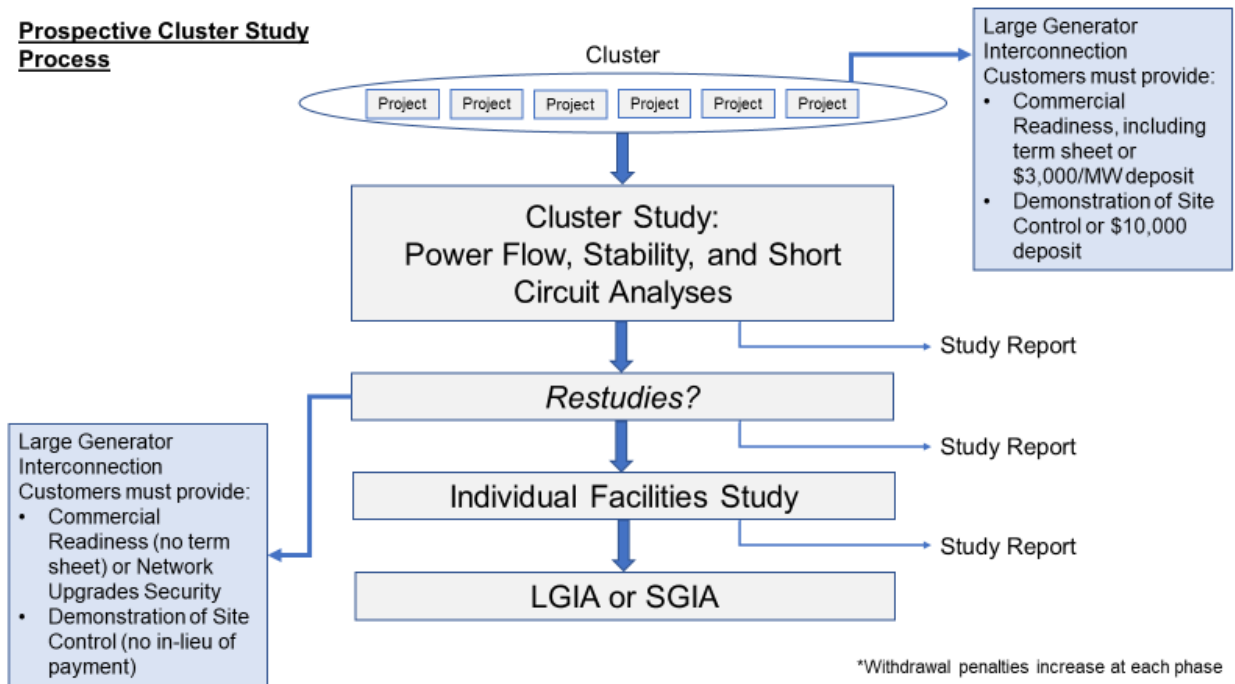
⁸⁰ PacifiCorp Proposed Tariff Section 42.2.

⁸¹ *Id.*

studies for the modified Cluster. PacifiCorp will use Reasonable Efforts to complete any Re-study within 150 days.

4. Cluster Re-study reports issued and customer meeting upon completion of a Cluster Re-study.
5. Projects that cannot demonstrate commercial readiness (i.e., large generator projects that entered the queue with a term sheet or an “in-lieu-of” payment) will be required to either demonstrate commercial readiness (beyond a term sheet) or provide financial security for Network Upgrades.
6. Individual Facilities Studies are performed.
7. Facilities Study reports issued pursuant to PacifiCorp’s existing process.
8. LGIA negotiation and execution.

Prospective Cluster Study Process



a. Cluster System Impact Study: Power Flow, Stability, and Short Circuit Analyses

The Cluster Study process begins with the Cluster Study, which will include power flow, stability and short circuit analyses that will identify the Interconnection Facilities and Network Upgrades required to reliably interconnect each project at its requested interconnection service level (i.e., Energy Resource Interconnection Service (“ERIS”) or Network Resource

Interconnection Service (“NRIS”),⁸² provide a non-binding estimate of the cost of the required upgrades, and identify each Interconnection Customer’s allocated Network Upgrades costs.⁸³ Cluster Studies will take into account the final results of the previously-conducted Cluster Studies, as well as all generating facilities that on the date the Cluster Request Window closes: are directly interconnected to PacifiCorp’s transmission system; are interconnected to Affected Systems and may have an impact on the Interconnection Requests in the Cluster; have a pending higher-queued or higher-clustered Interconnection Request; and have an executed LGIA or have requested that an unexecuted LGIA be filed with the Commission.⁸⁴ Because projects requesting NRIS and ERIS will be studied in the same Cluster, the study process will be two-tiered. Specifically, PacifiCorp will conduct a study that first assumes all clustered projects requested ERIS; it will then change some projects to NRIS to identify incremental upgrades to be allocated only to the NRIS upgrades in the Cluster.⁸⁵

Unless re-studies are required, PacifiCorp will use Reasonable Efforts to complete the Cluster Study within 150 Calendar Days of the close of the Customer Engagement Window, which is the same timeline as approved in PNM’s and PSCo’s queue reform proceedings.⁸⁶ PacifiCorp will provide each Interconnection Customer with a Cluster Study Report, publish the Cluster Study results on OASIS, and hold a Cluster Study Report Meeting within 10 Business Days of the OASIS posting. Simultaneously with the issuance of a Cluster Study Report, or Cluster Re-Study Report, if any, PacifiCorp will also tender a draft Facilities Study Agreement, which triggers a 30 Calendar Day period in which Customers can evaluate the study results and determine whether to proceed. Interconnection Customers that choose to withdraw from the Cluster following delivery of the Cluster Study Report will be subject to applicable withdrawal penalties.⁸⁷

b. Re-Studies

If any large or small generator Interconnection Customers withdraw from the Cluster (or a previous Cluster) after Cluster Study Reports issue, PacifiCorp will determine whether a Cluster Re-study is necessary following a process similar to PSCo’s.⁸⁸ If PacifiCorp decides that no re-studies are required, PacifiCorp will provide electronic notice to all projects in the Cluster that re-studies are not required.

If PacifiCorp determines that a Cluster Re-study is necessary, PacifiCorp will electronically notify Interconnection Customers in the Cluster and post on OASIS that a re-study is required.⁸⁹

⁸² See Vail Testimony at 5-6 for definitions of ERIS and NRIS.

⁸³ PacifiCorp Proposed Tariff Section 42.3.

⁸⁴ *Id.*

⁸⁵ *Id.*

⁸⁶ PacifiCorp Proposed Tariff Section 42.4(b); see also PNM LGIP Section 7.4.a; PSCo LGIP Section 7.4.c.

⁸⁷ PacifiCorp Proposed Tariff Section 42.4(c).

⁸⁸ PacifiCorp Proposed Tariff Section 42.5(c); see also PSCo LGIP Section 7.4.d.

⁸⁹ PacifiCorp Proposed Tariff Section 42.5(d).

PacifiCorp will then: conduct re-studies of the power flow, stability and short circuit analyses on the modified Cluster, as appropriate; issue Cluster Re-study Reports and publish the modified Cluster Study results on OASIS; and hold a Cluster Re-study Report Meeting within 10 Business Days of publishing the results. PacifiCorp will use Reasonable Efforts to complete all re-studies within 150 Calendar Days of the commencement of the first Cluster Area Re-study.⁹⁰ Large Generator Interconnection Customers that choose to withdraw during the re-study process or following delivery of a Cluster Re-study Report will be subject to applicable withdrawal penalties.

PacifiCorp will repeat the re-study process until there are no further changes to the Cluster and will electronically notify all projects in the Cluster when no further re-studies are required.⁹¹ Interconnection Customers remaining in the Cluster will be required to promptly inform PacifiCorp of any material changes to the Interconnection Customer's demonstration of commercial readiness or Site Control.⁹²

c. Enhanced Commercial Readiness Demonstration and Site Control Requirements at Execution of the Facilities Study Agreement

Unless PacifiCorp determines that a Cluster Re-study is necessary pursuant to the procedures summarized above, Interconnection Customers must execute the draft Facilities Study Agreement and return it to PacifiCorp within 30 Calendar Days after its receipt, along with any required technical data to complete the study and a showing of commercial readiness and Site Control.⁹³

Interconnection Customers that entered the queue with either a term sheet or a financial payment in lieu of showing commercial readiness will be required to submit *another* form of commercial readiness as described in Section V.A.2.c above (i.e., a PPA, evidence the project was selected in a procurement process, or in the case of LSE self-build projects, a site-specific purchase order) or to post financial security for the project's share of estimated Network Upgrade costs, less the deposit amount initially provided, if applicable. In addition, Interconnection Customers that provided a deposit in lieu of showing Site Control will be required to demonstrate Site Control before executing a Facilities Study Agreement, as explained in Section V.A.2.b above.

These increasing commercial readiness and Site Control requirements, in combination with the assessment of withdrawal penalties, will limit the number of projects that drop out later in the process and, thus, will result in fewer required re-studies. It will also make Cluster Study results more reliable and less subject to change as a result of withdrawals and cascading re-

⁹⁰ *Id.* If PacifiCorp determines that it will not meet the 150 Calendar Day timeframe, PacifiCorp will notify Interconnection Customers as to the schedule and status of the study, as well as an estimated completion date and explanation of the reasons why additional time is required.

⁹¹ PacifiCorp Proposed Tariff Section 42.5(d).

⁹² PacifiCorp Proposed Tariff Section 38.4.1.

⁹³ PacifiCorp Proposed Tariff Section 43.1.

studies. The Commission has recognized the benefits of increasing the requirements to maintain a queue position and has approved a similar scheme of increasing readiness requirements in PSCo's queue reform proceeding.⁹⁴ The Commission should likewise find PacifiCorp's proposal to be consistent with or superior to the *pro forma* interconnection procedures, and therefore just and reasonable.

d. Interconnection Facilities Studies

The project-specific Interconnection Facilities Study will provide a non-binding estimate of the cost of the equipment, engineering, procurement and construction work needed for the requested interconnection, and the estimated cost of any Transmission Provider's Interconnection Facilities and Network Upgrades necessary for interconnection.⁹⁵ As in the currently-effective LGIP, PacifiCorp will issue draft Interconnection Facilities Study Reports to Interconnection Customers within either 90 Calendar Days if the Interconnection Customer requests no more than a +/- 20 percent cost estimate contained in the report, or 180 Calendar Days, if the Interconnection Customer requests a +/- 10 percent cost estimate.⁹⁶ PacifiCorp will then have 10 Business Days to meet with the Interconnection Customer to discuss the results of the draft study report,⁹⁷ and the Interconnection Customer will have 30 Calendar Days to provide comments on the draft report to PacifiCorp. PacifiCorp will use Reasonable Efforts to issue the final report within 15 Business Days of receiving the Interconnection Customer's comments (or promptly upon the Interconnection Customer's statement that it will not provide comments).⁹⁸ Aside from revisions to align the study timing with the larger combined Cluster Study and Cluster Re-Study, provisions,⁹⁹ the existing SGIP Facilities Study procedures are preserved.

Large Generator Interconnection Customers that choose to withdraw from the Cluster following delivery of the final Interconnection Facilities Study or after LGIA execution will be subject to applicable withdrawal penalties, as explained in Section V.A.7 below. If a Large Generator Interconnection Customer withdraws or modifies its project such that a re-study is required, PacifiCorp will use Reasonable Efforts to complete the re-study within 60 Calendar Days from the date of notice that a re-study is required. Re-studies will be completed at the cost of the Interconnection Customers being re-studied.¹⁰⁰

⁹⁴ *Interconnection Queuing Practices*, 122 FERC ¶ 61,252 at P 16; *PSCo Order* at P 50.

⁹⁵ PacifiCorp Proposed Tariff Section 43.2; see also PacifiCorp Proposed Tariff Section 51.5 (facilities study procedures for small generating facilities).

⁹⁶ PacifiCorp Proposed Tariff Section 43.3. If PacifiCorp is unable to meet the required time frame for completing the Facilities Study, PacifiCorp will provide the Interconnection Customer with an estimated completion date and an explanation of why additional time is required. *Id.*

⁹⁷ PacifiCorp Proposed Tariff Section 43.4.

⁹⁸ PacifiCorp Proposed Tariff Section 43.3.

⁹⁹ See, e.g., PacifiCorp Proposed Tariff Sections 51.5.1, 51.5.2.

¹⁰⁰ PacifiCorp Tariff Section 43.5.; PacifiCorp Proposed Tariff Section 51.6.

PacifiCorp proposes to apply this same Facilities Study re-study provision to Small Generating Facilities that are subject to the Cluster Study process. For the same reasons that such small generating facilities should be subject to the combined Cluster study process in the first instance, small generating facilities should also be subject to subsequent re-study procedures that are aligned with and based off of the results of the Cluster process. Without such engagement of all non-withdrawn Cluster participants, the results of any Cluster Re-Studies or Facility Re-Studies would necessarily be incomplete and misleading.

The Interconnection Facilities Study is followed by LGIA and SGIA negotiation and execution. Consistent with current practice, upon completion of the Facilities Study, PacifiCorp will provide the Interconnection Customer with an executable version of the LGIA or SGIA, as applicable.¹⁰¹

5. Modifications to Interconnection Requests

Modifications to a Large or Small Generator Interconnection Customer's Interconnection Request will be subject to a Material Modification analysis under the currently-applicable provisions of PacifiCorp's Tariff.¹⁰² This includes, but is not limited to, changes in a project's requested type of interconnection service (i.e., switching from ERIS to NRIS or vice versa) and changes to the project's requested point of interconnection. As Mr. Vail explains, PacifiCorp's currently effective OATT permits Interconnection Customers to wait to choose ERIS or NRIS until the Facilities Study phase. This frequently results in re-studies of lower-priority interconnection requests due to the change in assumptions in lower-priority studies, and contributes to the backlog in PacifiCorp's queue. Requiring Interconnection Customers to undergo a Material Modification analysis is just and reasonable means of disincentivizing such behavior. Interconnection Customers seeking more information about potential study assumptions including interconnection service type will be able to use the Informational Interconnection Study process described below.

Any change to an Interconnection Request that constitutes a Material Modification will result in the Interconnection Customer's withdrawal from the Cluster.¹⁰³ Projects that withdraw from the Cluster Study process will be re-studied in a future Cluster on the same footing as Interconnection Customers entering the Cluster Request Window for the first time.¹⁰⁴

6. Network Upgrade Funding Allocation

Like the Network Upgrade funding allocation approved for PNM and PSCO,¹⁰⁵ PacifiCorp proposes to separate Network Upgrades into two categories for this purpose: (1) station equipment Network Upgrades, including all equipment located in the station to which the

¹⁰¹ PacifiCorp Proposed Tariff Section 42.5(c) and 51.5.7.

¹⁰² PacifiCorp Tariff Section 39.4.

¹⁰³ PacifiCorp Tariff Section 39.4.3.

¹⁰⁴ See PacifiCorp Proposed Tariff Section 38.7 ("Withdrawal shall result in the loss of Interconnection Customer's Queue Position, including any placement within a Cluster.").

¹⁰⁵ *PNM Order* at P 86; *PSCO Order* at P 36.

generator is connecting; and (2) all other Network Upgrades, including transmission lines, transformers, and distantly located breakers. Station equipment Network Upgrades will be allocated on a per capita basis (i.e., per Interconnection Request) based on the number of generators interconnecting at an individual station.¹⁰⁶ All other Network Upgrades will be assigned within a Cluster based on the type of Interconnection Service Requested (ERIS or NRIS) and thereafter allocated based on proportional capacity of each individual Generating Facility in the Cluster, similar to what the Commission approved for PNM.¹⁰⁷ To avoid excessively burdening small generators with significant Network Upgrade costs, PacifiCorp proposes to adopt a floor of 1% of total MW within a Cluster, under which projects will be deemed not to contribute to the Network Upgrades identified in the Cluster Study.¹⁰⁸ For example, if there are 3,000 MW of projects within a Cluster Study, a 10 MW project would be below 1% of total MW within a Cluster and deemed not to cause Network Upgrades. This floor is intended to protect small generators from potentially significant funding requirements when such projects may not actually contribute to the need for significant network upgrades.

To distinguish between ERIS and NRIS impacts within a cluster, PacifiCorp will conduct an iterative process to isolate those incremental Network Upgrades caused by NRIS requests within a cluster. As explained by Mr. Vail, this process will consist of running the Cluster Study first assuming that all projects in the cluster are ERIS projects, then running it again with NRIS projects identified, in order to isolate the incremental Network Upgrades caused by the NRIS requests.¹⁰⁹

7. Withdrawal Penalties

As discussed above, the Cluster Study process permits projects to withdraw at any time, subject to increasing withdrawal penalties.¹¹⁰ Consistent with PSCo's withdrawal penalty approach, withdrawal penalties will apply to Large Generator Interconnection Customers that choose to withdraw or do not otherwise reach commercial operation, unless:¹¹¹

1. The withdrawal of the large generator does not negatively affect the timing or cost of other projects within the same Cluster as determined by Transmission Provider;

¹⁰⁶ PacifiCorp Proposed Tariff Section 39.2.3(a). Like provisions approved for PSCo, if multiple Interconnection Customers are sharing the same interconnection facility, they will be considered one Interconnection Customer for the per capita calculation. Shared Transmission Provider's Interconnection Facilities will be allocated based on the number of Generating Facilities sharing that facility on a per capita basis. *Id.*; see also PSCo LGIP Section 4.2.4.a.

¹⁰⁷ PacifiCorp Proposed Tariff Section 39.2.3(b); PNM LGIP Section 4.2.4 (requiring proportional capacity allocation). The "proportional capacity" approach is the best fit given the size of its service territory, and the fact that PacifiCorp will cluster projects by electrical relevance, preventing interconnection customers from bearing the costs of upgrades in distant areas of the system.

¹⁰⁸ PacifiCorp Proposed Tariff Section 39.2.3(d).

¹⁰⁹ Vail Testimony at 30:15-22; 16:1-3.

¹¹⁰ PacifiCorp Proposed Tariff Section 38.7.

¹¹¹ PacifiCorp Proposed Tariff Section 38.7.1; PSCo LGIP Section 3.7.1.1.

2. The large generator withdraws after receiving the most recent Cluster Study Report and the costs assigned to the Interconnection Request identified in that report have increased by more than twenty-five percent (25%) compared to costs identified in the previous Cluster Study Report; or,
3. The large generator withdraws after receiving the individual Facilities Study report and the costs assigned to the Interconnection Request identified in that report have increased by more than 100 percent compared to costs identified in the most recent Cluster Study Report.

Withdrawal penalties will increase as the Large Generator Interconnection Customer moves through the study process. Such increasing penalties are necessary to account for the harms that occur when projects drop out of the study queue. Such withdrawing projects increase costs to required conduct re-studies, cause study and interconnection delays, and jeopardize the viability of other projects. In addition, because PacifiCorp has provided Interconnection Customers the option to provide a payment in lieu of showing commercial readiness, PacifiCorp must impose increasing withdrawal penalties to help incentivize only those projects moving toward commercial operation to stay in the queue and to ensure that the “first-ready, first-served” Cluster Study proposal functions properly. Increasing withdrawal penalties are also wholly consistent with “first-ready, first-served” interconnection process reforms approved for other non-RTO transmission providers like PSCo, are consistent with or superior to the *pro forma* generator interconnection procedures.¹¹²

PacifiCorp’s proposed withdrawal penalties will be a multiple of the Interconnection Customer’s actual study costs.¹¹³ Like PSCo, if the Large Generator Interconnection Customer demonstrated commercial readiness via the provision of an executed term sheet, contract, or reasonable evidence that the facility has been selected in a resource solicitation process, the Interconnection Customer’s withdrawal penalty will equal one times its actual allocated cost of all studies performed up to the point of withdrawal (unless the withdrawal occurs after execution of an Interconnection Agreement).¹¹⁴

If the Interconnection Customer provided the \$3,000 per MW deposit in lieu of showing commercial readiness, withdrawal penalties will increase through the interconnection process. If the Interconnection Customer withdraws after receipt of a Cluster Study report, the withdrawal penalty will be equal to two times the actual allocated cost of all studies performed for the Interconnection Customer up to that point, capped at \$1 million.¹¹⁵ If withdrawal occurs after receipt of any applicable re-study reports, the withdrawal penalty will be equal to three times

¹¹² PSCo Order at P 51.

¹¹³ This is unlike PSCo’s withdrawal penalty scheme, in which withdrawal penalties are calculated based on a multiple of the greater of the study deposit or actual study costs. PSCo Order at P 45.

¹¹⁴ PacifiCorp Proposed Tariff Section 38.7.1.1.

¹¹⁵ PacifiCorp Proposed Tariff Section 38.7.1.1(a).

actual allocated study costs, capped at \$1.5 million.¹¹⁶ If withdrawal occurs after receipt of the individual Facilities Study Report, the withdrawal penalty will be equal to five times actual allocated study costs, capped at \$2 million.¹¹⁷ As in PSCo’s reformed LGIP, any Large Generator Interconnection Customer that withdraws after executing an LGIA will be subject to a withdrawal penalty equal to nine times actual allocated study costs, regardless of the method by which it satisfied the commercial readiness criteria.¹¹⁸ While PacifiCorp proposed in its queue reform stakeholder process to leave withdrawal penalties uncapped, PacifiCorp added caps (mirroring those approved in the PSCo proceeding) in response to stakeholder feedback.¹¹⁹

Finally, an Interconnection Customer that suspends its interconnection agreement will be required to pay for costs associated with any studies or re-studies required as a result of the suspension, including any re-studies associated with affected interconnection customers.¹²⁰ The following chart illustrates this penalty structure:

Point of Withdrawal	Means of Showing Commercial Readiness	Total Withdrawal Penalty	Penalty Cap
Receipt of Cluster Study Report	Term Sheet, PPA, or Resource Solicitation	1 times actual study costs	No Cap
Receipt of Re-Study Reports	Term Sheet, PPA, or Resource Solicitation	1 times actual study costs	No Cap
Receipt of Individual Facilities Study Report	Term Sheet, PPA, or Resource Solicitation	1 times actual study costs	No Cap
After LGIA Execution	Term Sheet, PPA, or Resource Solicitation	9 times actual study costs	No Cap
Receipt of Cluster Study Report	\$3,000/MW deposit	2 times actual study costs	\$1 million
Receipt of Re-Study Reports	\$3,000/MW deposit	3 times actual study costs	\$1.5 million

¹¹⁶ PacifiCorp Proposed Tariff Section 38.7.1.1(b).

¹¹⁷ PacifiCorp Proposed Tariff Section 38.7.1.1(c).

¹¹⁸ PacifiCorp Proposed Tariff Section 38.7.1.1; PSCo LGIP Section 3.7.1.1.

¹¹⁹ PSCo LGIP Section 3.7.1.1.

¹²⁰ PacifiCorp Proposed Tariff Section 38.7.1.1.

Receipt of Individual Facilities Study Report	\$3,000/MW deposit	5 times actual study costs	\$2 million
After LGIA Execution	\$3,000/MW deposit	9 times actual study costs	No Cap

In assessing withdrawal penalties, PacifiCorp will first draw down on any remaining study deposit and deposits provided in lieu of showing site control or commercial readiness.¹²¹ PacifiCorp proposes to use the withdrawal penalty revenues to fund study costs for both Large and Small Generator Interconnection Customers. Withdrawal penalty revenues will be allocated in a manner similar to the allocation of study costs, that is, 50 percent on a per capita basis based on the number of Interconnection Customers in the applicable Cluster and 50 percent on a pro rata basis based on requested megawatts included in the applicable Cluster. Withdrawal penalties revenues received from Interconnection Customers that withdraw after receipt of the Facilities Study Report will be distributed to the remaining Interconnection Customers in the Cluster when all customers in the Cluster reach commercial operation.¹²²

Similar to PacifiCorp’s treatment of study deposits as discussed in Section IV.A.2.a above, withdrawal penalty revenues will first be applied as a bill credit to not-yet-invoiced study costs for other Interconnection Customers in the same Cluster. Withdrawing Interconnection Customers will not receive a bill credit associated with withdrawal penalty revenues. To the extent there are additional withdrawal penalty revenues after funding not-yet-invoiced studies (i.e., re-studies) for other customers in the same Cluster, the excess revenues will then be applied to the study costs of future Clusters.¹²³ As the Commission has acknowledged, such use of withdrawal penalty revenues is reasonable because it “offsets the significant cost of re-studies and will not be applied to Network Upgrades.”¹²⁴

To provide transparency to all Interconnection Customers, PacifiCorp will post the balance of the withdrawal penalty account on OASIS. This distribution methodology is consistent with the withdrawal penalty revenue distribution methodology approved for PSCo’s interconnection process, including the application of penalty caps.¹²⁵ It is therefore consistent with or superior to the *pro forma* generator interconnection procedures.

B. Prospective Modifications to the LGIA and SGIA

PacifiCorp also proposes to make certain, limited modifications to its LGIA termination and suspension procedures to clarify the intent of Order No. 2003 for the LGIP and LGIA to be read

¹²¹ See PacifiCorp Proposed Tariff Section 48.3.2.

¹²² PacifiCorp Proposed Tariff Section 38.7.1.2.

¹²³ *Id.*

¹²⁴ *PSCo Order* at P 51.

¹²⁵ *Id.*

together.¹²⁶ These limited modifications are identical to those proposed and approved in the PSCo Order, and will ensure that PacifiCorp has the ability to perform necessary re-studies and will clarify that if a project's Commercial Operation Date is extended beyond the three cumulative years described in the interconnection procedures, such an extension may be a material modification and may result in the termination of the interconnection agreement. PacifiCorp has also added a provision to the LGIP to state that the Commercial Operation Date and/or other aspects of the LGIA are subject to change depending on re-studies.

1. Clarification of LGIA Termination Procedures

PacifiCorp proposes to revise its LGIA termination provisions to clarify that if a Generating Facility or a portion of the Generation Facility does not reach Commercial Operation, the Transmission Provider may terminate the LGIA or the portion of the LGIA associated with the part of the Generation Facility that does not reach Commercial Operation. PacifiCorp's proposed revisions also clarify that the LGIP and the LGIA should be read together, and that a total cumulative extension for up to three years is not a Material Modification. Nor would an LGIA be terminated if an Interconnection Customer's Commercial Operation Date is extended beyond three years as a result of delays in the commercial operation of a Contingent Facility.¹²⁷ These revisions are identical to those proposed in PSCo's queue reform filing and approved by the Commission in its December 2019 order.¹²⁸

2. Clarification of LGIA Suspension Provisions

PacifiCorp also proposes to add three new provisions to the LGIA relating to suspension of construction upgrades. The first revision clarifies that an Interconnection Customer may not miss a milestone to circumvent initiating suspension provisions. This revision will ensure that Interconnection Customers are not able to simply pay for upgrades as required in their IA Milestones rather than entering suspension.¹²⁹ The second revision clarifies that: (1) upgrade construction is suspended during suspension; (2) appendices may be revised to account for construction sequencing and milestones modified due to suspension, and (3) that maintenance of site control is required during suspension. These revisions also clarify that if the Commercial Operation Date is extended beyond three cumulative years as described in the PacifiCorp's interconnection procedures and LGIA, such extension may be considered a Material Modification and result in LGIA termination.¹³⁰ These revisions are identical to those proposed in PSCo's queue reform filing and approved by the Commission in its December 2019 order.¹³¹

¹²⁶ See PSCo Order at P 63 (approving identical revisions to PSCo's LGIA termination and suspension provisions in order to ensure that projects that never enter commercial operation cannot hold onto interconnection capacity indefinitely).

¹²⁷ PacifiCorp Proposed Tariff, LGIP Appendix 6 (LGIA) at Article 2.3.1.

¹²⁸ PSCo Order at P 63.

¹²⁹ PacifiCorp Proposed Tariff, LGIP Appendix 6 (LGIA) at Article 5.16.1.

¹³⁰ PacifiCorp Proposed Tariff, LGIP Appendix 6 (LGIA) at Article 15.16.2.

¹³¹ PSCo Order at P 63.

C. Informational Study Process

To move to a “first-ready, first-served” process, PacifiCorp proposes to include in its LGIP a new type of study: standalone (i.e., non-clustered) Informational Interconnection Studies for large and small generators to evaluate interconnection feasibility and to provide Interconnection Customers with non-binding information upon which to base preliminary siting decisions. Similar to the Informational Interconnection Study approved in PSCo’s interconnection queue reform proceeding,¹³² the Informational Interconnection Study is a non-binding study intended to provide Interconnection Customers with project viability information without requiring the Customer to commit to a formal Interconnection Request.¹³³

PacifiCorp proposes to allow Interconnection Customers to request Informational Interconnection Studies beginning on October 15, 2020—the Commercial Readiness Deadline that ultimately establishes the Transition Cluster.¹³⁴ PacifiCorp will begin accepting Informational Interconnection Study requests on that date because its primary immediate focus is processing the existing queue backlog. Moreover, any Informational Interconnection Study conducted prior to the establishment of the Transition Cluster will reflect only the current backlog of requests, and resulting modeling uncertainties, described in this filing. Thus, performing such studies before October 15, 2020 would not only additionally burden PacifiCorp staff already in the midst of a transitional cluster study preparation but would also provide little-to-no benefit to Interconnection Customers in the process.

After October 15, 2020, large and small generators may request that PacifiCorp perform an Informational Interconnection Study at any time prior to submission of an Interconnection Request. To provide Interconnection Customers with this preliminary information but avoid overwhelming PacifiCorp’s transmission planning function and hampering its ability to process regularly-scheduled Cluster Studies, similar to PSCo’s approach,¹³⁵ Interconnection Customers will only be permitted to request, and PacifiCorp will only be required to perform, a reasonable number of Informational Studies for each Interconnection Customer, at the Interconnection Customer’s expense.¹³⁶ PacifiCorp also proposes a \$10,000 deposit for each Informational Interconnection Study, subject to true-up based on actual costs.¹³⁷

Interconnection Customers may submit the assumptions that PacifiCorp should use when conducting the Informational Interconnection Study, including a proposed Point of Interconnection, reasonable alternative Points of Interconnection, and whether Energy Resource

¹³² PSCo Order at PP 30, 49; PSCo LGIP at Section 6.

¹³³ Informational Studies will not be available to customers with pending Interconnection Requests, including those customers with valid Transition Requests.

¹³⁴ Proposed Attachment W, Sections 2.1, 3.1; *infra* Part VI.C (discussing the transition cluster study process).

¹³⁵ PSCo LGIP at Section 6; PSCo Order at P 10 (describing PSCo’s informational process).

¹³⁶ See PacifiCorp Proposed Tariff Section 41.1.1. Permitting Interconnection Customers to request a “reasonable number” of Informational Studies is similar to the procedures in PacifiCorp’s currently-effective Tariff for Optional Interconnection Studies.

¹³⁷ PacifiCorp Proposed Tariff Sections 41.1.2., 51.2.

or Network Resource Interconnection Service is being requested.¹³⁸ To ensure that Informational Interconnection Studies are conducted within realistic parameters that reflect the operational realities of PacifiCorp's system, studies will be subject to the following fixed assumptions—which are the same as those currently used for Feasibility Studies under PacifiCorp's and the Commission's *pro forma* Tariff:¹³⁹

- (1) All existing generation interconnected to the Transmission Provider's system or an Affected System (with an anticipated impact on the request) will be assumed in-service;
- (2) All projects in the Cluster study process will be assumed in-service; and
- (3) All signed LGIAs will be assumed in-service.¹⁴⁰

PacifiCorp and the Interconnection Customer may also conduct a scoping meeting to discuss an Informational Interconnection Study Request, if the parties mutually agree.¹⁴¹ Procedures for executing the Informational Interconnection Study Agreement and for conducting the Informational Interconnection Study are contained in proposed Tariff Sections 41.1.2 and 41.1.4. Similar to the Commission-approved language in PSCo's LGIP,¹⁴² PacifiCorp will use Reasonable Efforts to complete the Informational Interconnection Study within a mutually agreed upon time period, taking into account all previous requests for Informational Interconnection Studies that have been submitted but not yet completed.¹⁴³

Although Informational Interconnection Study results will be non-binding, they will provide customers with a good faith estimate of interconnection cost responsibility and estimated time to construct. Importantly, however, the Informational Interconnection Study will *not* determine the customer's ultimate interconnection cost responsibility. Furthermore, Interconnection Customers requesting Informational Interconnection Studies will not be assigned a queue position, will not have priority over any other customer requesting an Informational Interconnection Study, and will not enter the interconnection queue solely by virtue of its request for an Informational Interconnection Study.¹⁴⁴

¹³⁸ The Commission also enhanced Interconnection Customers' access to modeling information in Order No. 845.

¹³⁹ PacifiCorp Proposed Tariff Section 41.1.3; *compare* PacifiCorp Proposed Tariff Section 41.1.3 (Scope of Informational Interconnection Study) *with* PacifiCorp Tariff Section 41.2 (Scope of Interconnection Feasibility Study). *See also* Pro Forma Large Generator Interconnection Procedures at Section 6.2.

¹⁴⁰ Although PacifiCorp will receive Informational Interconnection Study requests during the Transition Process, because the back-log of interconnection requests will not yet have been cleared out, the results of such studies may have limited value.

¹⁴¹ Proposed Tariff Section 41.1.1.

¹⁴² PSCo Tariff Section 6.3.

¹⁴³ Proposed Tariff Section 41.1.4.

¹⁴⁴ Proposed Tariff Section 41.1.3.

VI. PROPOSED TARIFF REVISIONS: TRANSITION PROCESS

A. Overview

As explained above, PacifiCorp's interconnection queue faces significant challenges, including consistent backlogs and delays. PacifiCorp has clearly heard from stakeholders that the status quo is not sustainable, and that reforms are required to ensure that the interconnection process complies with the Commission's goals in Order No. 2003 to expedite the development of new generation and to ensure that rates remain just and reasonable.¹⁴⁵ The transition to a "first-ready, first-served" interconnection process is therefore critical to effectively carrying out interconnection queue reform. In short, PacifiCorp must clear out the queue by permitting commercially viable projects to proceed to interconnection. Failure to do so would undermine the prospective queue reforms by perpetuating the cause of delays that have made the current interconnection process challenging.¹⁴⁶ The Transition Process will apply to any Large or Small Generator Interconnection Requests received and pending as of the date of this filing but that have not yet executed an LGIA or SGIA as of the effective date (the "Transition Requests").¹⁴⁷

The crux of the Transition Process is that all large "Transition Requests" will be required to show commercial readiness by a date certain in order to proceed to interconnection. With the exception of certain late-stage projects, Transition Requests that meet the commercial viability standards will be processed in Transition Cluster Studies. Specifically, PacifiCorp proposes to permit Large Generator Interconnection Customers to proceed to a Transition Cluster Study only if they can demonstrate commercial readiness by October 15, 2020 ("Transition Readiness Deadline").¹⁴⁸ PacifiCorp's Transition Process will apply to all Interconnection Requests received and pending by January 31, 2020.¹⁴⁹ For late-stage Transition Requests, (i.e., those that are in the queue that, as of April 1, 2020, have received a Facilities Study Agreement or are beyond that point but have not yet executed an interconnection agreement) will have the option to complete their serial interconnection process as described below, but will be required to meet commercial readiness criteria.¹⁵⁰ All other Transition Requests will be eligible to enter a Transition Cluster Study to the extent they meet commercial readiness criteria.

Interconnection Requests submitted after the date of this filing but before the new interconnection process becomes effective will continue to be processed under PacifiCorp's

¹⁴⁵ Order No. 2003 at P 7.

¹⁴⁶ See, e.g., *PSCo Order* at P 67 (approving the proposed transition process as a means to implement queue reform).

¹⁴⁷ Proposed Tariff Attachment W, Section 1.1. However, as noted earlier Small Generator Interconnection Customers will not be required to demonstrate commercial readiness. Small Generator Interconnection Customers currently in the queue that have demonstrated Site Control under current SGIP provisions will automatically enter the Transition Cluster with no requirement to demonstrate commercial readiness.

¹⁴⁸ Proposed Tariff Attachment W, Section 2.1.1.

¹⁴⁹ Proposed Tariff Attachment W, Section 1.1.

¹⁵⁰ Proposed Tariff Attachment W, Section 1.2.1.

currently-effective serial interconnection procedures and will not be processed under the Transition Process for projects currently in the queue. As of the effective date of PacifiCorp's interconnection queue reform proposal (if accepted by the Commission), such projects will be governed by the prospective cluster study process, will be deemed submitted to the initial Cluster Request Window in 2021, and will be studied in the initial prospective Cluster Study, provided the project otherwise meets the requirements of the prospective interconnection process described in Part V.

PacifiCorp's transition process is similar to that adopted by PSCo. The Commission found PSCo's proposed transition process to be a just and reasonable means to resolve its interconnection queue backlog because PSCo considered the interests of interconnection customers with requests far along in the process. In particular, the Commission noted that PSCo allowed more advanced projects to move forward in a timely fashion under the transitional serial process if they choose, while allowing other less advanced projects to move ahead under the transitional cluster process.¹⁵¹

B. Transition Cluster Study Process

As in PacifiCorp's proposed prospective process, Large and Small Generator Interconnection Customers will be studied in the same Transition Cluster Study. Large Generator Interconnection Requests with an existing queue position as of January 31, 2020 that have not executed an LGIA by the effective date of the enclosed tariff revisions will be required to demonstrate commercial readiness and Site Control (or provide security in lieu of showing Site Control) by the October 15, 2020 Transition Readiness Deadline to enter Transition Cluster Studies.¹⁵² Similar to the current and proposed prospective interconnection processes,¹⁵³ PacifiCorp will notify Interconnection Customers that have submitted Transition Requests of any deficiencies in their requests, which, in the Transition Process, must be remedied by no later than the October 15, 2020 Transition Readiness Deadline.¹⁵⁴ Interconnection Customers that have executed an LGIA or SGIA as of the effective date of the enclosed revisions will proceed forward according to the terms therein, and any subsequent changes to those agreements will be evaluated to determine whether they are Material Modifications, as they are today.

Under the Transition Process, Large Generator Interconnection Customers have approximately eight months from the date of this filing to demonstrate commercial readiness. This is a reasonable amount of time, especially for those Large Generator Interconnection Customers that have been sitting in the interconnection queue for years, and is longer than the 30-day period

¹⁵¹ *PSCo Order* at P 67.

¹⁵² Proposed Tariff Attachment W, Sections 2.1.1 and 2.1.2. PacifiCorp may conduct multiple Transition Cluster Studies, clustering projects based on geographic and electrical proximity. Proposed Tariff Attachment W, Section 3.4.1.

¹⁵³ PacifiCorp Tariff Section 38.4.3 (Deficiencies in Interconnection Request); Proposed Tariff Section 38.4.3 (same).

¹⁵⁴ Proposed Tariff Attachment W, Section 2.2.

approved for PSCo's transition process.¹⁵⁵ Given the acute challenges with delays in PacifiCorp's interconnection process, it would be unjust and unreasonable to permit speculative projects to continue to claim interconnection capacity in the Transition Process at the expense of commercially viable projects that are ready to move forward.

Large Generator Interconnection Customers that cannot demonstrate commercial readiness by the October 15, 2020 Transition Readiness Deadline will be withdrawn from the interconnection process.¹⁵⁶

Interconnection Customers will not be assessed additional study deposits for Transition Requests, and will be required to designate a definitive Point(s) of Interconnection and Interconnection Service Type (if not already designated). In addition, Interconnection Customers will be required to provide updated Interconnection Request information, such as an updated LGIA Appendix 1, which will enable PacifiCorp to identify curable deficiencies for the customer and prepare for the Transition Cluster.¹⁵⁷

1. Commercial Readiness Requirements for Large Generators

Large Generator Interconnection Customers will be permitted to proceed through the Transition Cluster Study process only by providing one of the following commercial readiness milestones by the October 15, 2020 Transition Readiness Deadline:

1. An executed term sheet (or comparable evidence) related to a contract for sale of (i) the constructed Generating Facility to a load-serving entity or to a commercial, industrial, or other large end-use customer; (ii) the Generating Facility's energy where the term of sale is not less than five years; or (iii) the Generating Facility's ancillary services if the Generating Facility is an electric storage resource where the term of sale is not less than five years;
2. An executed contract binding upon the parties for sale of (i) the constructed Generating Facility to a load-serving entity or to a commercial, industrial, or other large end-use customer; (ii) the Generating Facility's energy where the term of sale is not less than five years; or (iii) the Generating Facility's ancillary services if the Generating Facility is an electric storage resource where the term of sale is not less than five years; or
3. Reasonable evidence that the project has been selected in a Resource Plan or Resource Solicitation Process by or for a load-serving entity, or is being developed for purposes of a sale to a commercial, industrial, or other large end-use customer.¹⁵⁸

¹⁵⁵ *PSCo Order* at PP 65, 67.

¹⁵⁶ Proposed Attachment W, Section 2.1.

¹⁵⁷ Proposed Tariff Attachment W, Sections 2.1.3-2.1.6.

¹⁵⁸ Proposed Tariff Attachment W, Section 2.1.1.

Unlike the Prospective Cluster Study process, the Transition Process will *not* include the option to provide a refundable deposit in lieu of demonstrating commercial readiness and will not permit Interconnection Customers to submit self-build evidence (i.e., proof of purchase for generating equipment or similar evidence). Although such requirements are appropriate on a going-forward basis, successfully clearing PacifiCorp's queue backlog will require facilitating shovel-ready projects as much as possible in the Transition Process.¹⁵⁹

In addition, to ensure that only those projects moving toward commercial operation continue through the Transition Cluster Study, non-late-stage Large Generator Interconnection Customers will be subject to an increased readiness milestone at execution of the Facilities Study. Specifically, Large Generator Interconnection Customers that initially submitted a term sheet must at this point submit an executed contract or reasonable evidence of selection in a procurement process or development by a load-serving entity.¹⁶⁰ As in the prospective cluster process, the Interconnection Customer must promptly inform PacifiCorp of any material changes to the customer's ability to demonstrate commercial readiness.¹⁶¹

2. Site Control

Interconnection Customers must also satisfy Site Control requirements to enter the Transition Cluster Study. Large Generator Interconnection Customers may either post a deposit of \$10,000 with a Transition Request, or demonstrate actual Site Control under the same requirements that apply in the going-forward interconnection process described in Section IV.A.2.b above.¹⁶² However, Large Generators that proceed through the Transition Cluster Study and that posted a \$10,000 deposit must demonstrate actual Site Control (no deposit permitted) upon execution of the Facilities Study Agreement.¹⁶³ PacifiCorp will post specifications for acceptable site size on OASIS, and Large Generator Interconnection Customers may propose alternative specifications for PacifiCorp's approval.¹⁶⁴

¹⁵⁹ See *PSCo Order* at P 67 (approving PSCo's similar transition process as a reasonable means to implement its queue reform proposal).

¹⁶⁰ Proposed Tariff Attachment W, Section 5.2. These commercial readiness requirements are similar to those approved by the Commission in PSCo's Transition Cluster process. See *PSCo Order* at P 67; PSCo LGIP Section 5.1.1.2.d.

¹⁶¹ Proposed Tariff Attachment W, Section 1.3; PacifiCorp Proposed Tariff Section 38.4.1.

¹⁶² Proposed Tariff Attachment W, Section 2.1.2. Any deposits provided shall be applied toward Interconnection Studies, pursuant to the Transition Request. *Id.* This is similar to the requirements of PSCo's Transitional Cluster Study process, but is more lenient in that Large Generator Interconnection Customers will also be permitted to submit a deposit in lieu of showing actual site control at this stage. See PSCo LGIP section 5.1.1.2.c.

¹⁶³ Proposed Tariff Attachment W, Section 5.1.

¹⁶⁴ Like the going-forward process, if PacifiCorp and the Interconnection Customer cannot reach agreement related to adequacy of site size, PacifiCorp will accept a site plan drawing stamped by a professional engineer (licensed in the state of the Point of Interconnection) that depicts the proposed generation arrangement and specifies the maximum facility output for that arrangement. See Proposed Tariff Attachment W, Section 2.1.2.

3. Study Costs

PacifiCorp will not collect additional study deposits from Interconnection Customers participating in Transition Cluster Studies—rather, PacifiCorp will bill each Interconnection Customer for its share of the actual Transition Cluster Study costs after the Cluster Study is complete,¹⁶⁵ net of any study deposits already provided by the Interconnection Customer prior to the Transition Cluster Study for which the Interconnection Customer has not yet received a study report. Study costs will be allocated according to the same procedure described for the going-forward Cluster Study Process described in Section V.A.2.a above.¹⁶⁶

C. Establishing Transition Clusters and Transition Cluster Study Procedures

Within five Business Days following the October 15, 2020 Transition Readiness Deadline, PacifiCorp will post on OASIS site a list of submitted Transition Requests for potential inclusion in the Transition Cluster Study and tender draft Cluster Study Agreements for all Transition Requests that have met the applicable requirements for inclusion in the Transition Cluster Study.¹⁶⁷ A scoping meeting with this group of customers will be held within ten Business Days of October 15, 2020, the process for which will be consistent with the prospective process scoping meeting.¹⁶⁸ Interconnection Customers will then be required to return their executed Cluster Study Agreements within fifteen Business Days following the October 15, 2020 Transition Readiness Deadline.¹⁶⁹ All Transition Requests meeting the applicable commercial readiness and Site Control requirements by the October 15, 2020 Transition Readiness Deadline that have executed the Transition Request Cluster Study Agreement will be included in the Transition Cluster.¹⁷⁰ Unlike PSCo's process, which required that commercial readiness criteria be met within thirty days of the effective date of its Tariff,¹⁷¹ PacifiCorp is allowing Transition Requests approximately eight months from the date of filing to meet similar commercial readiness requirements. The following graphic illustrates the basic cluster formation and study process in the Transition (dates are tentative and assume timely Commission approval of this filing):

¹⁶⁵ Proposed Tariff Attachment W, Section 2.1.3.

¹⁶⁶ Proposed Tariff Attachment W, Section 3.2.

¹⁶⁷ *Id.*

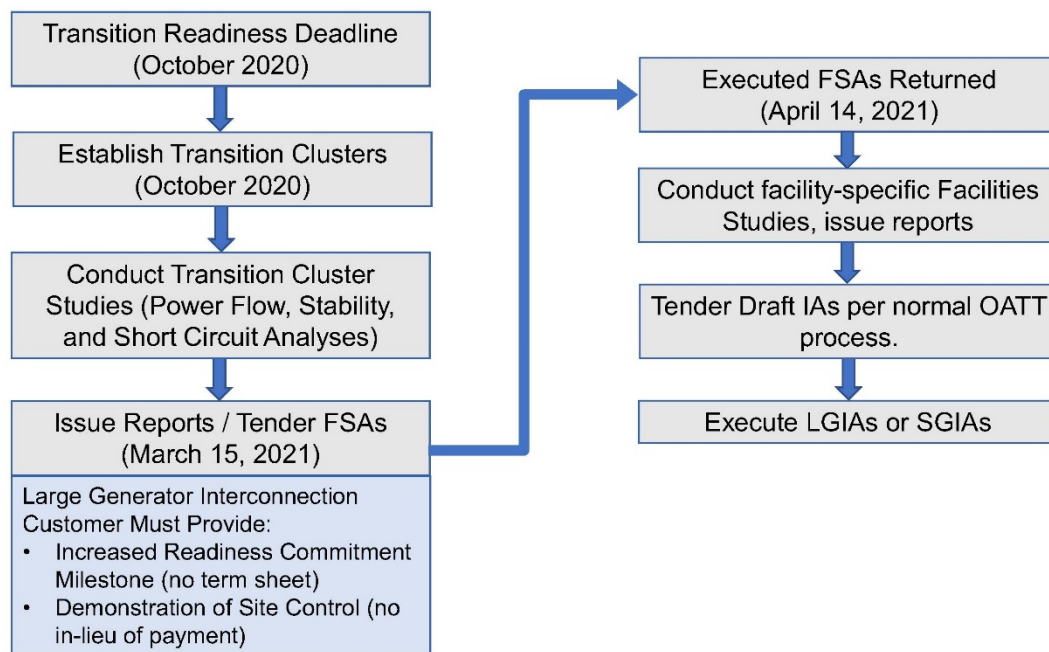
¹⁶⁸ Proposed Tariff Attachment W, Section 3.1 (citing Proposed Tariff Section 38.4.4).

¹⁶⁹ Proposed Tariff Attachment W, Section 3.3.

¹⁷⁰ Proposed Tariff Attachment W, Sections 3.1-3.3.

¹⁷¹ *PSCo Order* at P 65.

Transition Cluster Study Process



a. Transition Cluster Studies and Re-Studies

Projects that proceed through the Transition Process may be clustered based on geographic and electrical relevance, and PacifiCorp may define and conduct studies on multiple Cluster Areas within the Transition Cluster Study process, similar to the prospective Cluster System Impact Studies described in Section V.A.3 above.¹⁷² Like the prospective Cluster Study Process, the Transition Cluster Studies will consist of power flow, short circuit, and stability analyses, and will evaluate the impact of the proposed interconnection on the reliability of PacifiCorp’s transmission system. PacifiCorp will use Reasonable Efforts to complete the Transition Cluster Studies no later than 150 days after the close of the Transition Readiness Deadline.¹⁷³

Transition Cluster Study Reports will provide a list of required interconnection facilities and a non-binding, good faith estimate of cost responsibility and time required for construction.¹⁷⁴ Costs for Transmission Provider’s Interconnection Facilities and Network Upgrades identified in the Transition Cluster Study Report will be allocated among Interconnection Customers using the same methodology as will apply to the prospective Cluster Study Process (see Section V.A.6 above).¹⁷⁵ Within ten Business Days of furnishing a Transition Cluster Study Report to

¹⁷² Proposed Tariff Attachment W, Section 3.4.1.

¹⁷³ Proposed Tariff Attachment W, Section 3.4.2.

¹⁷⁴ *Id.*

¹⁷⁵ Proposed Tariff Attachment W, Section 3.5.

Interconnection Customers or posting the report on OASIS, PacifiCorp will convene an open Cluster Study Report Meeting to discuss the Transition Cluster Study results and will also meet with Interconnection Customers individually upon request.¹⁷⁶

In addition, as explained by Mr. Vail, the Transition Process described in Attachment W contains a provision to address the interconnection capacity that will be created by PacifiCorp's planned Gateway South transmission line project. Gateway South is a planned 400-mile 500 kV transmission line providing an outlet for new generation in the wind-rich region of eastern Wyoming. Because Gateway South is part of PacifiCorp's long-term transmission expansion plan, PacifiCorp has already executed several interconnection agreements that depend on Gateway South. Thus, the Cluster Study for this region will study how many additional pending Interconnection Requests can be granted based on Gateway South alone. To the extent there is more demand in that cluster than there is interconnection capacity on Gateway South, the interconnection capacity will be allocated based on existing queue position. For the remaining projects in the cluster, PacifiCorp will identify the additional upgrades that will permit interconnection of the entire cluster.¹⁷⁷

PacifiCorp will notify Interconnection Customers in writing if re-studies are required due to, e.g., modification of a higher-queued project or withdrawal of a project in the same Transition Cluster Study. PacifiCorp will use Reasonable Efforts to complete re-studies within 150 Calendar Days from the date of notice, and re-study costs shall be borne by Interconnection Customers being re-studied.¹⁷⁸

b. Interconnection Facilities Studies for Transition Requests

After Transition Cluster Studies and re-studies are complete, PacifiCorp will conduct separate Facilities Studies for each Transition Request. Simultaneously with the notice to Interconnection Customers that re-studies are complete or not required, PacifiCorp will provide Interconnection Customers with an Interconnection Facilities Study Agreement and a non-binding, good faith estimate of the cost and timeframe for completing the Transition Interconnection Facilities Study.¹⁷⁹ Interconnection Customers will then have 15 Calendar Days to execute the Interconnection Facilities Study Agreement and deliver it to PacifiCorp, along with any required technical data, a demonstration of Site Control (no deposit permitted), and a

¹⁷⁶ Proposed Tariff Attachment W, Section 3.6.

¹⁷⁷ The Commission approved a similar approach in *Nevada Power Co.*, 151 FERC ¶ 61,249 (2015) (approving Interim Interconnection Service approach that provides access to limited interconnection capacity while cluster-required upgrades are being constructed).

¹⁷⁸ Proposed Tariff Attachment W, Section 4. Within 10 Business Days of furnishing a Cluster Re-study Report or posting the report to OASIS, PacifiCorp will hold an open Cluster Re-study Report Meeting to discuss the re-study results and will also meet with Interconnection Customers individually upon request. Section 3.5.

¹⁷⁹ Proposed Tariff Attachment W, Section 5.2. Within 5 Business Days following the Cluster Study Report Meeting or Cluster Re-study Report Meeting, PacifiCorp will provide Interconnection Customers with a non-binding, good faith estimate of the cost and timeframe for completing the Interconnection Facilities Study. *Id.*

demonstration of commercial readiness in the form of an executed PPA or reasonable evidence that the facility has been selected in a resource plan or resource solicitation process by or for a load-serving entity.¹⁸⁰ As noted previously, the above-described heightened readiness requirements do not apply to late-stage Transition Requests at the Facilities Study Stage, but instead apply at the LGIA execution stage.¹⁸¹ Interconnection Facilities Studies will follow the procedures governing Facilities Studies in PacifiCorp's prospective Cluster Study process, as explained in Section V.A.4.d above.¹⁸²

Although Interconnection Customers will continue to be responsible for their share of all costs prudently incurred by PacifiCorp prior to termination,¹⁸³ PacifiCorp will *not* otherwise assess Withdrawal Penalties against Interconnection Customers that withdraw during the Transition Cluster Study.¹⁸⁴ Large generators admitted to the Transition Cluster Study will be subject to more stringent commercial readiness requirements than those large projects subject to the prospective process (where projects can provide, e.g., a refundable financial security in lieu of the other non-financial commercial readiness options), so assessing additional withdrawal-related costs on these transition cluster projects would be inequitable.

Following completion of the Interconnection Facilities Study, PacifiCorp and the Interconnection Customer will then proceed to LGIA and SGIA execution following the procedures in Sections 46 and 51.5.7 of PacifiCorp's Tariff.¹⁸⁵

D. Accommodating Late Stage Projects

The enclosed tariff reforms accommodate certain projects that have substantially progressed through the interconnection queue and could be prejudiced by being subjected to a re-study in a Transition Cluster. Accordingly, PacifiCorp is taking a similar approach to PSCo to accommodate late-stage projects in its queue. Interconnection Customers that are at or beyond the point in the interconnection process when they have been tendered a Facilities Study Agreement (i.e., including those in the Facilities Study process, or those that have been tendered an interconnection agreement) by April 1, 2020 will have the option to complete their interconnection process without being included in a Transition Cluster Study, or they may elect to proceed under the Transition Cluster Study process.¹⁸⁶ In any event, similar to PSCo's transition process, in order to proceed under the serial approach, these late-stage projects will be required

¹⁸⁰ *Id.*

¹⁸¹ *Supra* Part VI.B; Proposed Tariff Attachment W, Section 6.

¹⁸² Proposed Tariff Attachment W, Section 5.3.

¹⁸³ Proposed Tariff Attachment W, Section 7; see also PacifiCorp Tariff Section 38.6 (providing current withdrawal provisions and obligating customers to pay "all costs that Transmission Provider prudently incurs with respect to that Interconnection Request[.]").

¹⁸⁴ Proposed Tariff Attachment W, Section 7.

¹⁸⁵ Proposed Tariff Attachment W, Section 6.

¹⁸⁶ Proposed Tariff, Attachment W, Section 1.2.1. As with PacifiCorp's current LGIP, for both the Prospective Interconnection Process and Transition Interconnection process, the Facilities Study stage and Interconnection Agreement execution stage are both done on an individual, i.e., non-clustered, basis.

to show, no later than the October 15, 2020 Transition Readiness Deadline, commercial readiness in the form of an executed contract for sale of either the facility or its energy (or ancillary services, if applicable), or reasonable evidence that the facility has been selected in a resource solicitation process.¹⁸⁷ This heightened commercial readiness standard will be required for PacifiCorp to execute an LGIA. Late stage projects may also opt to participate in the Transition Cluster Study process, contingent upon a showing of the same (non-heightened) commercial readiness standards as apply to all other currently-queued requests by October 15, 2020. In other words, late stage projects that opt into the Transition Cluster Study process may demonstrate commercial readiness through an executed term sheet in addition to a contract and evidence of selection in a resource solicitation process. Late-stage projects that fail to meet the applicable commercial readiness requirements by October 15, 2020 will be deemed withdrawn from the queue.

VII. THE PROPOSED TARIFF CHANGES ARE JUST AND REASONABLE AND NOT UNDULY DISCRIMINATORY

A. A Transition to a “First-Ready, First-Served” Cluster Process is Just and Reasonable

From the beginning of the Commission’s efforts to standardize the generator interconnection process, it has recognized the shortcomings of the “first-come, first-served” approach to processing Interconnection Requests. In Order No. 2003, although the Commission formally adopted the serial approach, it “strongly encouraged”¹⁸⁸ clustering in queue management to improve efficiency, noting that such efficiency would be “best obtained using clustered queue windows, not through the sequential processing of Interconnection Requests.”¹⁸⁹ The Commission further recognized the limitations of the serial process in its order evaluating interconnection queueing practices five years following the issuance of Order No. 2003. There, the Commission stated:

While this [serial] approach made good sense at the time Order No. 2003 was issued and still works well in many situations, it has led to some unexpected consequences, particularly in transmission systems with numerous interconnection customers and limited excess transmission capacity. In markets with numerous interconnection customers, **many of those customers may be competing for the same load, and not all will be needed.** . . . Moreover, the [first-come, first-served approach] provides an incentive for developers to secure a place in the queue even for projects that may not be commercially viable. These and other factors can result in large numbers of interconnection requests

¹⁸⁷ Proposed Tariff Attachment W, Sections 5.1, 2.1.1 (b), (c).

¹⁸⁸ Order No. 2003 at P 155.

¹⁸⁹ *Id.* at P 156.

being ultimately withdrawn, which in turn slows down the process by necessitating more study and re-study.¹⁹⁰

The Commission indicated that switching to a “first-ready, first-served” approach, where customers who are ready to move forward with project development are processed first, would improve interconnection efficiency while also providing protection against discrimination comparable to the first-come, first-served approach.¹⁹¹

The Commission has approved a “first-ready, first-served” approach in the non-independent entity context as consistent with or superior to the *pro forma* LGIP, finding that the approach would help to clear the “interconnection queue backlog as soon as possible[, which] will be beneficial to all customers seeking interconnection as that will enable a more efficient interconnection process going forward.”¹⁹² In PNM’s queue reform proceeding, the Commission found replacement of the first-come, first-served approach would address “PNM’s current backlog and other complications associated with using the current serial procedure,”¹⁹³ which “should help effectively expedite the processing of commercially viable projects.”¹⁹⁴ More recently for PSCo, the Commission also approved a transition from a serial first-come, first-served approach to a clustered “first-ready, first-served” approach, finding that PSCo’s proposal “is a just and reasonable solution to address the backlog of over 22,000 MW of generation Interconnection

¹⁹⁰ *Interconnection Queuing Practices*, 122 FERC ¶ 61,252 at P 15 (emphasis added).

¹⁹¹ *Id.* at P 18. See also *El Paso Elec. Serv. Co.*, 137 FERC ¶ 61,101, at P 9 (2011) (citing the Commission’s acknowledgement that there may be approaches to prioritizing queue processing that protect against discrimination comparable to the first-come, first-served approach, but that are more efficient); *Arizona Public Service Co.*, 137 FERC ¶ 61,099, at P 9 (2011) (same); *NV Energy, Inc.*, 142 FERC ¶ 61,165, at P 27 (2013) (same).

¹⁹² *PNM Order* at P 72. The Commission has also endorsed “first-ready” in RTO markets. See *Sw. Power Pool, Inc.*, 128 FERC ¶ 61,114, order on compliance filing, 129 FERC ¶ 61,226 (2009), *order on compliance*, 133 FERC ¶ 61,139 (2010) (2009) (finding that the proposed tariff revisions transition towards a “first-ready, first served” approach consistent with the guidance provided by the Commission in the 2008 Interconnection Queuing Practices technical conference order); *Sw. Power Pool, Inc.*, 147 FERC ¶ 61,201 (2014), *order on reh’g and compliance*, 151 FERC ¶ 61,235 (2015) (accepting additional reforms to its GIP including, among other things, increased milestone and financial posting requirements); *Sw. Power Pool, Inc.*, 167 FERC ¶ 61,275 (2019) (accepting additional revisions to its GIP establishing a three-stage study process); *Midwest Indep. Transmission Sys. Operator, Inc.*, 124 FERC ¶ 61,183 (2008), *order on reh’g*, 127 FERC ¶ 61,294 (2009) (order conditionally accepting proposed tariff revisions changing the “first-come, first-served” approach to an approach based on the progress that the generation project is making toward coming on-line); *Midwest Indep. Transmission Sys. Operator, Inc.*, 138 FERC ¶ 61,233 (2012), *order on reh’g and compliance*, 139 FERC ¶ 61,253 (2012) (accepting further revisions to GIP to extend the idea of “first-ready, first-served” by removing certain interconnection customer timelines). See also *ISO New England Inc.*, 126 FERC ¶ 61,080 (2009) (accepting tariff revisions establishing a “first-clear, first-served” approach for Capacity Network Resource Interconnection Service (“CNRIS”) that, similar to the “first-ready, first-served” approach, allocates CNRIS to generating facilitating that demonstrate their readiness to participate in the Forward Capacity Market).

¹⁹³ *PNM Order* at P 79.

¹⁹⁴ *Id.* at P 77.

Requests in its queue.”¹⁹⁵ There, PSCo indicated that it only served approximately 6,900 MW of native load in its balancing authority area. Part of PSCo’s backlog challenge was that, under PSCo’s serial processing queue, if a higher-queued generator modified its project or withdrew from the queue, all lower-queued projects may need to be re-studied.

Like the Commission, PacifiCorp is “concerned about delays in processing interconnection queues.”¹⁹⁶ Also like the Commission and PSCo, PacifiCorp has identified “the need for re-study when multiple projects withdraw from a queue and the complexity of designing interconnections within a system with limited excess transmission capacity”¹⁹⁷ as significant factors contributing to its interconnection queue processing challenges. To address these challenges and “ensure the expediency called for by Order No. 2003,” PacifiCorp proposes to reform its interconnection queue process by transition from a serial first-come-first-served approach to a “*first-ready, first-served*” approach.

B. PacifiCorp’s Prospective Reforms are Consistent with the Commission’s PNM and PSCo Precedents

The pillars of PacifiCorp’s proposed reforms adhere closely to those adopted already by other utilities in tariffs on file with the Commission. The Commission had accepted wide-ranging reforms in interconnection practices—including “first-ready, first served” principles—in several RTO markets. As a vertically-integrated utility to which the Commission does not afford the flexibility of the independent entity standard, PacifiCorp followed the models adopted by PNM and PSCo. In both orders, the Commission endorsed the transition to a “first-ready” approach by non-RTO utilities. In its 2011 *PNM Order*, the Commission explained:

PNM’s proposal replaces its interconnection procedures from a first-come, first-served approach to enable it to implement an approach that allows projects that are farther along in development to proceed on a more accelerated basis while allowing less developed projects to receive early information regarding feasibility before final commitments are made. We find that PNM’s proposal should help effectively expedite the processing of commercially viable projects.¹⁹⁸

More recently in the *PSCo Order*, the Commission similarly endorsed a “first-ready” approach:

PSCo’s proposed revisions to its LGIP and LGIA, providing for a transition from a serial first-come, first-served approach to a clustered first-ready, first-served approach, should allow ready projects to proceed on a more accelerated basis while allowing less-developed projects access to early information through the

¹⁹⁵ *PSCo Order* at P 30.

¹⁹⁶ *Interconnection Queuing Practices*, 122 FERC ¶ 61,252 at P 4.

¹⁹⁷ *Id.*

¹⁹⁸ *PNM Order* at P 77.

Informational Interconnection Study and customer engagement window.¹⁹⁹ As discussed below, we find PSCo's Revised LGIP and Revised LGIA to be consistent with or superior to the *pro forma* LGIP and LGIA.²⁰⁰

The details of PacifiCorp's prospective reforms adhere closely to these two precedents. First, PacifiCorp's proposed use of a single definitive interconnection queue with entry criteria based on commercial readiness, combined with an informational study process was expressly approved for PSCo.²⁰¹

Second, PacifiCorp adopts the same study deposits (\$75,000 for requests between 20 MW and 50 MW; \$150,000 for requests of 50 MW and greater, but less than 200 MW; and \$250,000 for requests of 200 MW and greater) as PSCo.²⁰²

Third, PacifiCorp adopts the same study cost allocation for participants in a Cluster Study as PSCo (50 percent based on number of projects in the Cluster and 50 percent based on MW size).²⁰³

Fourth, PacifiCorp's proposed allocation of Network Upgrade cost responsibility to Cluster participants (based on MW size within a Cluster) is consistent with the accepted PNM approach.²⁰⁴

Fifth, like PSCo, PacifiCorp proposes both financial and non-financial (i.e., commercial) readiness options for developers to satisfy, including the flexibility of submitting a term sheet.²⁰⁵

¹⁹⁹ *Interconnection Queuing Practices*, 122 FERC ¶ 61,252 at P 18.

²⁰⁰ *PSCo Order* at P 30.

²⁰¹ *Id.*

²⁰² *Id.* at P 31.

²⁰³ *Id.* at P 32. *See also PNM Order* at P 86 ("We find that allocating 50 percent of an interconnection customer's study costs based on the number of interconnection requests in a Cluster, and 50 percent based on the interconnection customer's requested capacity strikes a reasonable balance between capacity-related costs and those costs which are independent of the capacity of the individual generating facilities.").

²⁰⁴ *See PNM Order* at P 86 ("We also find to be reasonable PNM's proposed method of allocating network upgrade costs resulting from the cluster studies on a pro-rata basis for station equipment (including all switching stations) based on the number of generating facilities interconnecting at an individual station, and proportionally for all transmission lines, transformers, and voltage support related to network upgrades, based on the capacity of each individual generating facility in the cluster study requiring such network upgrades."). PacifiCorp considered the "proportional impact" approach adopted by PSCo but deemed it inferior to the MW-size approach for PacifiCorp's system because, due to the wide geographic scope of its service territory, PacifiCorp will already cluster projects by electrical relevance, thus addressing the concern that cluster participants would bear the costs of upgrades in distant areas of the system.

²⁰⁵ *PSCo Order* at P 38-39. PacifiCorp did not adopt the PSCo "Provisional Interconnection Service" option at this time because it is not yet widely used, and thus the impacts on the queue could not be fully understood.

Sixth, like PSCo, the financial payments in lieu of commercial readiness would be refundable at withdrawal, “after settling final invoices, which would include any applicable withdrawal penalty.”²⁰⁶

Seventh, the use of withdrawal penalties as a deterrent to avoid entering the queue with speculative projects was endorsed in PSCo.²⁰⁷

Eighth, the limitations on the withdrawal penalties are substantively identical to the PSCo approach in that they will not apply if: (1) the withdrawal does not negatively affect the timing or cost of other projects in the Cluster; (2) the cost responsibility for transmission upgrades identified in the project’s most recent study report increased by more than 25 percent compared to the costs identified in the previous report; or (3) the project withdraws after receiving the individual facilities study report and the costs assigned to the project identified in that report have increased by more than 100 percent compared to costs identified in the Cluster Study Report.

Ninth, the scale of the withdrawal penalties is substantially the same as PSCo. In addition, PacifiCorp’s proposal to assess withdrawal penalties from one to nine times actual study costs at various points throughout the process aligns with PSCo, including the application of penalty caps.²⁰⁸

Tenth, PacifiCorp proposes an identical method to PSCo of using withdrawal penalty revenue to fund interconnection study costs and if there are withdrawal penalty revenues remaining after funding re-studies for Interconnection Customers in the same Cluster, PacifiCorp will distribute the remaining penalty revenue to re-studies for subsequent clusters. PacifiCorp attests that it will not keep any portion of the withdrawal penalty nor use any of the withdrawal penalty to fund network upgrades. PacifiCorp commits that it will post the balance of the withdrawal penalty account on OASIS.

Thus, while PacifiCorp’s interconnection queue reform proposal has been narrowly-tailored to reflect the operational realities of PacifiCorp’s system, it is also consistent with PNM’s and PSCo’s Commission-approved queue reform efforts. The Commission should therefore accept this interconnection queue reform proposal as just and reasonable.

C. The Transition Process is Narrowly Tailored to Address a Concrete Problem, Benefits Customers and Adequately Accommodates Late Stage Projects

As discussed in detail above, the proposed Transition Process is necessary to clear out the queue and promote competition in the wholesale market. The Transition Process will apply across the PacifiCorp system. The Transition Process is in most respects the same as PacifiCorp’s prospective reforms (which, as noted above, were largely accepted in PSCo and PNM). The few unique features of the Transition Process reflect the unique circumstances of PacifiCorp system and are necessary to clear out the queue for the benefit of commercially ready

²⁰⁶ *Id.* at P 42.

²⁰⁷ *Id.* at PP 44-46.

²⁰⁸ *PSCo Order* at P 45.

projects, but have been narrowly-tailored, and foster interconnection for commercially-ready projects that are already in the queue.

1. The Transition Close Date Is Just and Reasonable

PacifiCorp proposes to apply the Transition Process to those projects in the queue as of the date of this filing, i.e., the Transition Close Date. This delineation is reasonable because it is PacifiCorp's existing queue that needs to be processed in a more efficient manner in order to clear the way for commercially viable projects. New Interconnection Requests will be processed under the prospective interconnection process. PacifiCorp's proposed Transition Close date is consistent with the cutoff date that the Commission approved for PSCo, which was only three weeks after its filing.²⁰⁹

2. The Transition Readiness Criteria are Appropriate

The first unique aspect of the Transition Process is that Large Generator Interconnection Customers need to show commercial readiness without the option of submitting financial security in lieu of showing commercial readiness. Clearing out the queue is based on the premise that projects that will be commercially ready in the near term should be allowed to proceed with their interconnections and not be further delayed by speculative projects that are higher in the queue. Conversely, permitting Large Generator Interconnection Customers in the queue to submit financial security in lieu of showing actual commercial readiness during the Transition Process would undermine the efficacy of the Transition Process mechanism in clearing out the queue by permitting projects that are not ready to move forward to remain in the queue. This aspect of PacifiCorp's proposal was similarly modeled after the approved PSCo tariff, which also lacks a financial readiness option for its transition period.²¹⁰

3. Requiring Projects Already in the Queue to Demonstrate Readiness by a Date Certain is Necessary, Reasonable, and Protects Late-Stage Projects

The second unique aspect of the Transition Process is that Large Generator Interconnection Customers will be required to demonstrate commercial readiness by the October 15, 2020 Transition Readiness Deadline. This aspect of the transition proposal is the lynchpin of ensuring that commercially viable projects can move forward.

The October 15, 2020 Transition Readiness Deadline is reasonable because it was chosen specifically to be responsive to stakeholder requests that PacifiCorp align with the timing of PacifiCorp's anticipated 2020 RFP. The Transition Readiness Deadline also gives all projects in the queue adequate time (i.e., over eight months from this filing) to secure a commercial partner and demonstrate commercial readiness. This eight-month period is also considerably longer than

²⁰⁹ See *id.* at PP 65-67 (accepting PSCo's proposed transition process, in which Interconnection Customers with an assigned queue position prior to September 27, 2019 are eligible to enter the transition cluster. PSCo filed its queue reform proposal on September 9, 2019).

²¹⁰ PSCo Order at P 65.

the period provided to customers under the PSCo tariff.²¹¹ The effect of this Transition Process will be to allow only commercially viable projects to move forward, while permitting other projects to enter the queue after they can demonstrate commercial readiness (or provide the appropriate deposits under the prospective reforms). This will alleviate the burden that non-ready projects are currently placing on the queue.

Importantly, the requirement that Large Generator Interconnection Customers demonstrate commercial readiness does little to materially impact viable, even late stage projects. If projects late in their development have an off-taker or a buyer of their project, which is the hallmark of a truly late stage project, then that project will be able to satisfy the commercial readiness criteria and proceed through the interconnection process.

4. The Transition Process Cannot be Severed from the Prospective Reforms

The Transition Process is a critical element of being able to achieve the efficiencies of the prospective reforms proposed herein. PacifiCorp worked closely with its stakeholders to develop a package of queue reforms that will clear out and maintain an effective interconnection queue. If PacifiCorp had opted not to include a Transition Process, the efficacy of the prospective reforms would be significantly diminished. Specifically, without the Transition Process, the prospective reforms would only apply to new Interconnection Requests submitted after the effective date of the revised tariff, but would do nothing to cure the backlog in the existing queue caused by a rush to capture expiring tax credits and, in most cases, a desire by developers to compete in near-term resource procurements.

D. The Reforms Will Make It Easier for Ready Projects to Interconnect

PacifiCorp anticipates that the proposed interconnection reforms will significantly ease the current frustrations of the developer community and clear the way to more timely and reliable interconnection studies. Like PSCo and PNM before it, this proposal strikes the right balance by making entry into, and progression through, the Interconnection Queue more meaningful and less prone to speculation. As Mr. Vail discusses, under the status quo serial process, there is little cost or risk associated with entering the interconnection queue.²¹² The combination of the informational study process, readiness criteria, and withdrawal penalties will help discourage speculative projects from entering the queue and vastly increase the percentage of queued interconnection projects that can reach commercial operation.

VIII. INFORMATION RELATED TO THE EFFECT OF THE RATE CHANGE

The purpose of making the proposed changes is to facilitate improved management of PacifiCorp's interconnection queue and to reduce the harm to ready projects that is caused by delays in the interconnection process. PacifiCorp will continue to charge Interconnection

²¹¹ See *id.* at PP 65-67 (accepting PSCo's proposal to require Interconnection Customers to make a commercial readiness demonstration during a 30-day window from the effective date of PSCo's revisions).

²¹² Vail Testimony at 9:5-11.

Customers actual costs for interconnection studies. Furthermore, PacifiCorp is not proposing to change its Network Upgrade funding policy and so is not changing the ultimate allocated of costs of interconnection-related facilities. Without the proposed changes, PacifiCorp will be unable to provide requested Interconnection Service in a timely manner.

IX. ORDER NO. 845 COMPLIANCE

On December 19, 2019, the Commission issued an order accepting PacifiCorp's Order No. 845-related²¹³ changes to its LGIP and LGIA, subject to a further compliance filing to be submitted within 60 days of the date of the order.²¹⁴ PacifiCorp is still drafting those changes, which will be filed on or before February 17, 2020 in accordance with the 845 Compliance Order. Accordingly, the changes to the LGIP and LGIA described herein are being made to the currently-effective versions of those documents, without the changes required by the 845 Compliance Order, although some minimal changes have been made to the Tariff sections impacted by the 845 Compliance Order solely to avoid obvious inconsistencies with this filing.²¹⁵ Once the Commission has acted on both the instant filing and PacifiCorp's subsequent Order No. 845 compliance filing, PacifiCorp will make an appropriate filing via eTariff to ensure that the changes proposed in this filing and all Order No. 845-related changes reside in a single effective version of the LGIP and LGIA.

X. ADDITIONAL INFORMATION SUBMITTED IN SUPPORT OF FILING

The following information is required by Section 35.13 of the Commission's Regulations, 18 C.F.R. § 35.13:

A. Section 35.13(b)(1): Contents of Filing

In addition to this Transmittal Letter, this filing includes the following:

- Exhibit PAC-1: Testimony of Rick Vail
- Exhibit PAC-1.1: Rick Vail Experience and Education
- Exhibit PAC-1.2: Maps of PacifiCorp Transmission System and Status of Interconnection Customers

²¹³ *Reform of Generator Interconnection Procedures and Agreements*, Order No. 845, 163 FERC ¶ 61,043 (2018), *errata notice*, 167 FERC ¶ 61,123, *order on reh'g*, Order No. 845-A, 166 FERC ¶ 61,137 (2019), *errata notice*, 167 FERC ¶ 61,124, *order on reh'g*, Order No. 845-B, 168 FERC ¶ 61,092 (2019).

²¹⁴ *PacifiCorp*, 169 FERC ¶ 61,223 (2019) ("845 Compliance Order").

²¹⁵ See, e.g., Proposed Tariff Section 36 (proposing new definitions for "Surplus Interconnection System Impact Study" and "Surplus Interconnection System Impact Study Agreement"); Section 38.5.2.1 (revising subsection (B) and (C) to clarify that the 150-day time period starts upon the commencement of the Cluster Study itself, not from the execution of the Cluster Study Agreement, which may be different for every clustered customer); Section 38.8 (substituting "Cluster Study methodology" for "serial-queue order study methodology"); Proposed Tariff Section 39.4.6 (removing references to "Feasibility Study" and "System Impact Study").

B. Section 35.13(b)(2): Requested Effective Date

PacifiCorp respectfully asks the Commission to accept these OATT revisions effective April 1, 2020. As explained above, PacifiCorp is requesting this effective date in order to ensure that these reforms are in place prior to PacifiCorp's 2020 RFP, in response to stakeholder concerns.

C. Section 35.13(b)(3): The Names and Addresses of Persons to Whom a Copy of the Rate Change Has Been Posted

An electronic notice of this filing will be served on the state commissions in the jurisdictions where PacifiCorp operates: California Public Utilities Commission, Idaho Public Utilities Commission, Oregon Public Utility Commission, Utah Public Service Commission, Washington Utilities and Transportation Commission, and Wyoming Public Service Commission. Service of this filing will be to all PacifiCorp transmission service customers taking service under PacifiCorp's OATT, including all customers with a Large or Small Generator Interconnection Request pending via electronic notice and/or posting to the PacifiCorp's OASIS website. Pursuant to Section 35.2(d) of the Commission's regulations, 18 C.F.R. § 35.2(d), a copy of this filing will be posted for public inspection at PacifiCorp's offices: 825 N.E. Multnomah St., Portland, OR 97232 and 1407 W North Temple, Salt Lake City, UT 84116. A copy of the filing will also be posted on PacifiCorp's OASIS website.²¹⁶

D. Section 35.13(b)(4): Brief Description of the Rate Change

See Sections IV and V above. The proposed revisions do not constitute a rate change.

E. Section 35.13(b)(5): Statement of Reasons for the Rate Change

See Sections IV and V above. The proposed revisions do not constitute a rate change.

F. Section 35.13(b)(6): Requisite Agreement for the Rate Change

See Sections IV and V above.

G. Section 35.13(b)(7): Statement Showing Expenses or Costs Included in Cost-of-Service Statements

None of the costs related to this filing have been alleged in any administrative or judicial proceeding to be illegal, duplicative, or unnecessary costs that are demonstrably the product of discriminatory practices.

XI. COMMUNICATIONS

Communications with respect to this filing should be sent to the following individuals. PacifiCorp respectfully requests waiver of Rule 203(b)(3) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.203(b)(3), to permit all persons listed to be placed on the official service list for this proceeding.

²¹⁶ PacifiCorp's OASIS website is available at <http://www.oasis.oati.com/ppw/index.html>.

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XII. CONCLUSION

Wherefore, for the reasons discussed herein, PacifiCorp respectfully requests that the Commission issue an order accepting the changes discussed herein, to be effective sixty days after filing.

Respectfully submitted,

/s/ Karen J. Kruse

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Enclosures

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

PACIFICORP

)

Docket No. ER20-____-000

DIRECT TESTIMONY OF RICK VAIL

PACIFICORP

Filed: January 31, 2020

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1 **I. Introduction and Overview**

2 **Q. Please state your name, title, and business address.**

3 A. My name is Rick Vail, and I am the Vice President of Transmission for PacifiCorp. I am
4 responsible for the safe, reliable, and strategic operation of PacifiCorp’s electric
5 transmission system. My business address is 825 N.E. Multnomah, Suite 1600, Portland,
6 Oregon 97232. A complete statement of my education and work experience is attached to
7 this testimony as Exhibit PAC-1.1.

8 **Q. Have you testified before the Federal Energy Regulatory Commission (“FERC” or**
9 **“Commission”) previously?**

10 A. Yes. I previously testified in FERC Docket No. EL15-13-001.

11 **Q. What is the purpose of your testimony in this proceeding?**

12 A. The purpose of my testimony is to address several matters:

13 • First, I will detail the challenges that have arisen with PacifiCorp’s generator
14 interconnection queue, specifically how a dramatic increase in the number of
15 interconnection requests currently pending in PacifiCorp’s interconnection queue
16 combined with a “first-come, first-served” serial queue process have led to a significant
17 backlog in the queue. Second, I will describe the interconnection queue reforms that
18 PacifiCorp proposes to implement on a going forward basis that will allow it to move from
19 a “first-come, first-served” serial queue process to a “first ready, first served” cluster
20 process, which (among other things) will require demonstration of commercial readiness
21 before a project can be studied and incorporate a clustering of interconnection requests for
22 study purposes. PacifiCorp’s aim is to facilitate interconnection for those generators who

1 will be in a position to actually use the interconnection service, rather than generators who
2 were simply able to submit their requests into the queue first.

- 3 • Finally, I will discuss the reforms that PacifiCorp proposes for a transition period through
4 the third quarter of 2020 that will address the current backlog of projects. The proposed
5 transition cluster study process (“Transition Process”) will apply a commercial readiness
6 requirement to all Large Generator Interconnection Customers—but *not* Small Generator
7 Interconnection Customers—in the queue to proceed through a transition cluster study
8 (“Transition Cluster Study”) and interconnection agreement phase.

9 **Q. Do you have any exhibits to your testimony?**

10 A. Yes. They are:

- 11 • Exhibit PAC-1.1: Statement of my education and work experience, and
12 • Exhibit PAC-1.2: Maps dated October 9, 2019 showing the PacifiCorp transmission system
13 and status of Interconnection Customers.

14 **II. Reasons for Generator Interconnection Queue Reforms**

15 **A. Overview of the PacifiCorp Transmission System**

16 **Q. Please describe the PacifiCorp Transmission System.**

17 A. PacifiCorp’s transmission system is comprised of over 16,000 miles of transmission lines
18 that is used to serve load in six states: Utah, Idaho, Wyoming, Oregon, Washington, and California.
19 PacifiCorp operates its transmission system as two Balancing Authority Areas (“BAAs”): the
20 Western BAA or PacifiCorp-West (“PACW”), which is Oregon, Washington, and California, and
21 the Eastern BAA, or PacifiCorp-East (“PACE”) which is Utah, Idaho, and Wyoming. PacifiCorp
22 uses this transmission system to provide service to 1.9 million customers.

23 **Q. How much load is on the PacifiCorp transmission system today?**

1 A. The record peak demand for the two systems was 12,685 MW in 2015, with a peak of
2 12,670 in 2018. Record peak demand for the PACW system is 4,354 MW, and 9,142 MW for the
3 PACE system.

4 **B. Status of PacifiCorp Generator Interconnection Queue**

5 ***1. How the Interconnection Process Works***

6 **Q. How does PacifiCorp currently process generator interconnection requests?**

7 A. PacifiCorp currently employs a serial interconnection process in which it evaluates
8 interconnection requests submitted in accordance with the *pro forma* Large Generator
9 Interconnection Process (“LGIP”) for projects with an output in excess of 20 MW, the *pro forma*
10 Small Generator Interconnection Process (“SGIP”) for projects no larger than 20 MW, or the
11 applicable state-jurisdictional interconnection process for certain Qualifying Facilities (“QFs”) or
12 certain requests on the lower-voltage distribution system. A customer submits an application and
13 a refundable deposit and is assigned a sequential queue number – for purposes of illustration
14 throughout my testimony, I will use number Q100. Under the serial process, after PacifiCorp has
15 performed the interconnection studies for each of customers Q1, Q2, Q3, *et cetera*, through
16 customer Q99 (unless they have withdrawn from the process earlier), then PacifiCorp can begin
17 working on the studies for customer Q100.

18 **Q. Are there separate queues for LGIP, SGIP, and state-jurisdictional Interconnection**
19 **Customers?**

20 A. No. While they may have different procedures, all of PacifiCorp’s Interconnection
21 Customers are processed serially through the same queue.

22 **Q. What are the studies that PacifiCorp performs under the LGIP?**

1 A. The LGIP currently provides for a Feasibility Study, a System Impact Study, and a
2 Facilities Study. There is also an Optional Interconnection Study that an Interconnection Customer
3 can request.

4 **Q. What does PacifiCorp evaluate in each of these studies?**

5 From a high level, the scope of each of these studies is dictated by the *pro forma* LGIP. Briefly:

- 6 • The Feasibility Study is a power flow and short circuit analysis that provides a preliminary
7 assessment of the impact the proposed interconnection will have on the PacifiCorp system.
8 It results in a list of the facilities that will be needed for the interconnection together with
9 a non-binding good faith estimate of the costs and cost allocation for those facilities, and
10 an estimated construction timeline.
- 11 • The System Impact Study is a short circuit analysis, a stability analysis, and a power flow
12 analysis that will evaluate the impact the interconnection will have on system reliability.
13 The System Impact Study results in a list of the facilities that will be needed for the
14 interconnection, a non-binding good faith estimate of the costs and cost allocation for those
15 facilities, and an estimated construction timeline.
- 16 • The Facilities Study builds on the conclusions reached in the System Impact Study to
17 identify and estimate the specific facilities to be constructed for the proposed
18 interconnection and the construction timeline.
- 19 • If the Interconnection Customer requests it, the Optional Interconnection Study is a
20 sensitivity analysis of the System Impact Study results based upon assumptions provided
21 by the customer. It is for informational purposes only.

22 **Q. What are the studies performed under the SGIP?**

23 A. As with the LGIP, the SGIP provides for a Feasibility Study, a System Impact Study, and
24 a Facilities Study, which are similar in scope to their LGIP analogs, but can also take into account
25 distribution system impacts depending on the voltage of the system to which the small generator
26 proposes to interconnect. The SGIP also has a separate “Fast Track” process for evaluation if a
27 proposed small generator meets certain size requirements specified in the SGIP. Depending on
28 the results of the Fast Track process, a customer may be able to avoid the formality of the
29 Feasibility Study, a System Impact Study, and a Facilities Study.

1 **Q. What assumptions does PacifiCorp use in its evaluation of generator interconnection**
2 **requests?**

3 A. Based on the requirements set out in the LGIP and SGIP for the relevant studies, when
4 PacifiCorp studies a new interconnection request, it makes certain assumptions about what the
5 transmission system will look like when the new Interconnection Customer's generator
6 commences operation. Specifically, PacifiCorp must assume that all of the following are in-
7 service:

- 8 • Existing generators that are already interconnected with the PacifiCorp transmission
9 system;
- 10 • Existing generators that are already interconnected with the adjoining transmission
11 systems, that may have an impact on the new request;
- 12 • Interconnection Customers with projects higher up in the queue, including their associated
13 network upgrades; and
- 14 • Interconnection Customers who are no longer in the queue, but rather have an executed
15 interconnection agreement.

16 Put another way, using my example of customer Q100, Q100's interconnection studies assume
17 that all existing generators (on the PacifiCorp system and any relevant adjacent system) are in
18 service, as well as customers Q1 through Q99 (if they have not dropped out of the process),
19 including those with executed Large Generator Interconnection Agreements ("LGIA") or Small
20 Generator Interconnection Agreements ("SGIA").

21 **Q. When it is evaluating interconnection requests, does PacifiCorp assume that all**
22 **generators will be using the transmission system in the same way?**

23 A. No. To be clear, an interconnection request does not, on its own, convey any transmission
24 rights to an Interconnection Customer. For that, the customer must make a separate request under
25 the Open Access Transmission Tariff ("OATT").

26 **Q. Please describe ERIS.**

1 A. ERIS is usually considered a lower level of interconnection service. When PacifiCorp
2 studies a customer's request for ERIS for interconnection study purposes, it assumes the generator
3 will be eligible to deliver its output using the existing firm or non-firm capacity of PacifiCorp's
4 transmission system on an as available basis.

5 **Q. Please describe NRIS.**

6 A. NRIS is a higher level of interconnection service. Under NRIS, PacifiCorp assumes that
7 the generator will be used as a Designated Network Resource ("DNR") under the OATT. As a
8 result, the NRIS study evaluates the proposed generator under a variety of stressed conditions to
9 determine whether the aggregate of generation in the local area where the generator is proposing
10 to interconnect can be delivered to the aggregate of load on a transmission provider's system.
11 Because of these interconnection deliverability assumptions, in a constrained area, the studies for
12 an NRIS customer will generally identify more required network upgrades to reliably complete the
13 interconnection than would be reflected in the studies for a comparable ERIS customer in the same
14 location. ERIS and NRIS requirements will generally be the same in unconstrained areas.

15 **Q. How are the costs for facilities that are identified during the study process typically**
16 **allocated?**

17 A. For a generator interconnection, the SGIP and LGIP usually identify three categories of
18 facilities: Interconnection Customer Interconnection Facilities; Transmission Provider's
19 Interconnection Facilities; and Network Upgrades. Under the LGIA and SGIA, the
20 Interconnection Customer is directly responsible for the cost of the Interconnection Customer
21 Interconnection Facilities and Transmission Provider's Interconnection Facilities. For Network
22 Upgrades, the Interconnection Customer is responsible for providing the necessary capital to fund
23 the cost of the Network Upgrades, unless PacifiCorp chooses to do so. However, PacifiCorp re-

1 pays the Interconnection Customer for such up-front funding, and then includes the cost of the
 2 Network Upgrades into its transmission rates in accordance with FERC policy.

3 **2. High Volume of Interconnection Requests**

4 **Q. How many generator interconnection requests has PacifiCorp received since the**
 5 **inception of its interconnection queue, in total?**

6 A. As reflected on the queue information posed on PacifiCorp’s OASIS site, the company has
 7 received almost 1,200 generator interconnection requests since 2000.

8 **Q. How many generator interconnection requests are in the PacifiCorp interconnection**
 9 **queue currently?**

10 A. As of October 28, 2019, over 230 interconnection requests sit in PacifiCorp’s queue; of
 11 those, 161 interconnection requests representing over 37,000 MW are FERC-jurisdictional
 12 requests under the LGIP. All other interconnection requests (including small generator
 13 interconnection requests and state jurisdictional interconnection requests) account for just 73
 14 requests, or 2,741 MW.

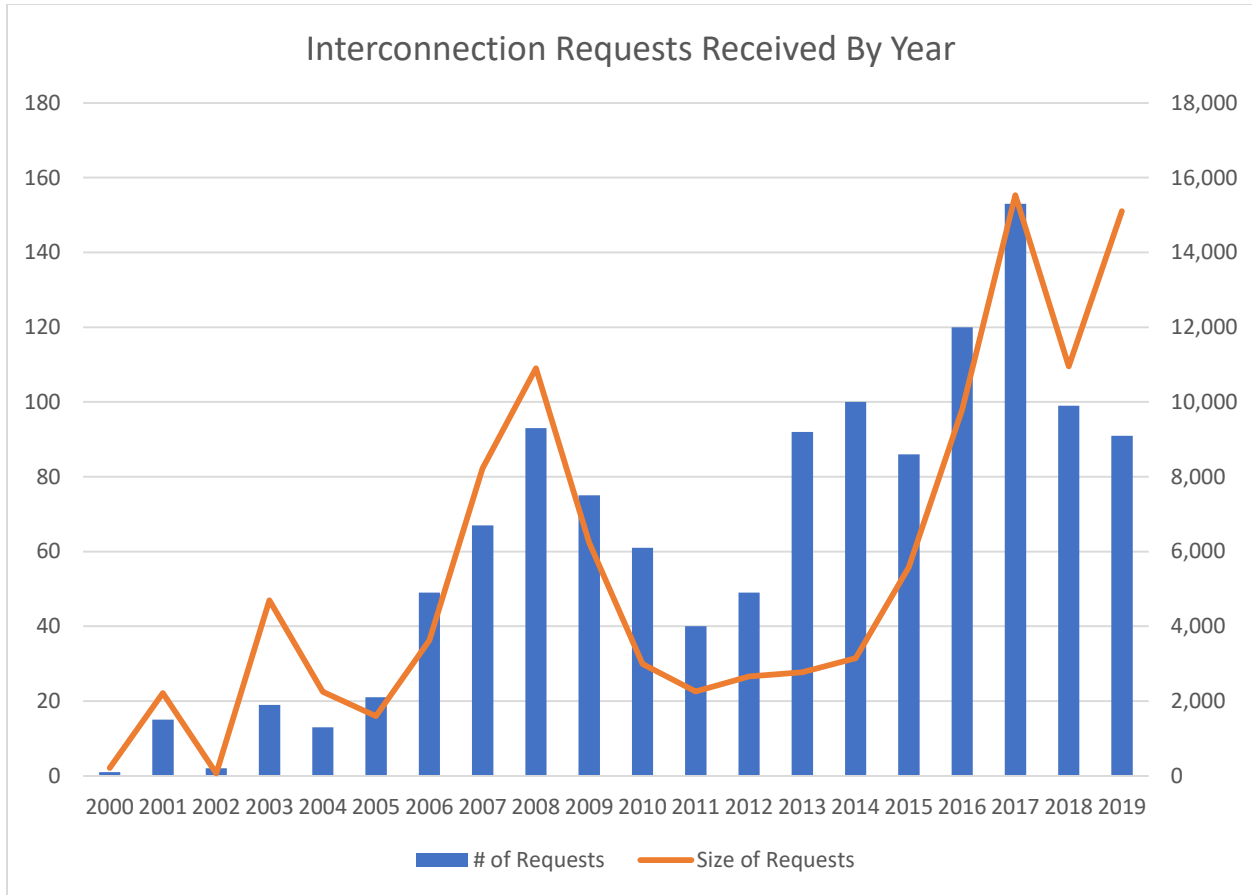
	Number of Interconnection Requests	Size of Interconnection Requests (MW)
FERC LGIP	161	37,393
All Others	73	2,741
Grand Total	234	40,135

15
 16 Since October these numbers have continued to increase, and few, if any, Interconnection
 17 Customers have withdrawn.

18 **Q. About how many interconnection requests does PacifiCorp receive each year?**

19 A. Since the inception of PacifiCorp’s generation interconnection queue in 2000 through 2013
 20 PacifiCorp received approximately 40 interconnection requests for approximately 3,600

1 megawatts of generation on average annually. Since around 2014, there has been a marked
 2 increase in interconnection requests, with PacifiCorp receiving approximately 105 interconnection
 3 requests for approximately 10,000 megawatts of generation on average annually.



4

5 **Q. What is your understanding of the drivers behind the large number of**
 6 **interconnection requests?**

7 A. A primary driver is the eligibility of solar and wind projects to receive certain tax credits
 8 if the projects are able to obtain commercial operation by a certain date. To that end, a lot of
 9 interconnection requests are for renewable projects such as solar and wind particularly in PACE.
 10 It is my understanding that the expiration of these tax credits has pushed a large number of
 11 developers to submit interconnection requests for their projects, in the hope that they may be able
 12 to take advantage of them. Additionally, multiple developers hoping to capitalize on planned

1 transmission projects, such as the Gateway South 500-kV transmission line, have submitted
2 applications to interconnect. The company has also seen spikes in interconnection requests
3 coincident with the issuances of request for proposals (“RFPs”) by PacifiCorp’s resource
4 procurement arm.

5 The large number of interconnection requests in PacifiCorp’s queue is also likely driven
6 by the insignificant cost or risk associated with a withdrawal under the current, serial queue
7 process. The current, serial-queue process does not require Interconnection Customers to show
8 meaningful progress toward commercial viability. While Interconnection Customers are required
9 to pay for the cost of Feasibility Studies, System Impact Studies, and Facilities Studies, there is no
10 significant financial cost attached to a project’s withdrawal. These factors result in a large number
11 of speculative projects entering PacifiCorp’s interconnection queue, only to withdraw later.

12 **3. Challenges to Processing Requests**

13 **Q. On average how many interconnection studies does PacifiCorp perform each year?**

14 A. Since 2014, on an annual basis PacifiCorp performs an average of 20-25 Feasibility
15 Studies, 40-50 System Impact Studies, and 25-30 Facilities Studies.

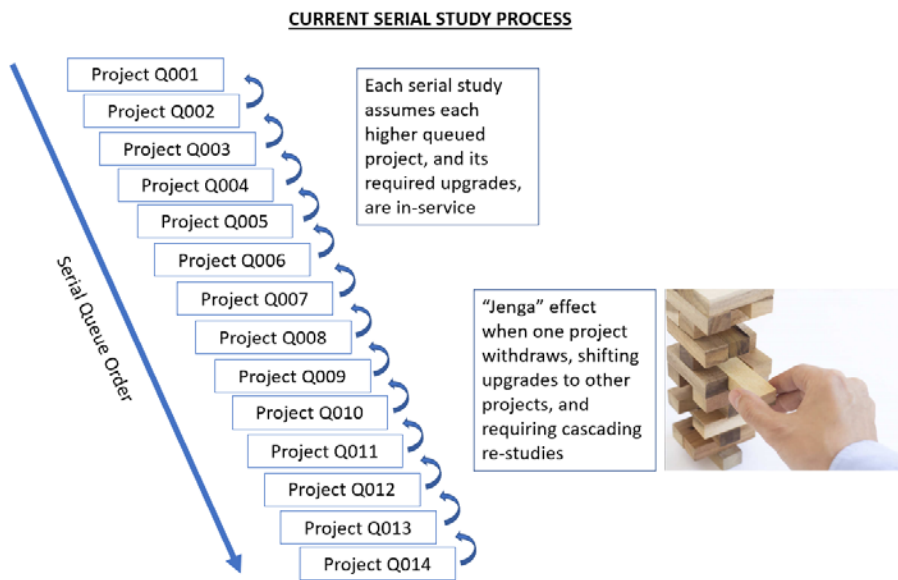
16 **Q. About how long does it take for PacifiCorp to process a generator interconnection
17 request, from application to LGIA/SGIA?**

18 A. On average, it takes 12-18 months to process a large generator interconnection request, and
19 9-15 months to process a small generator interconnection request, although these timelines are
20 getting longer due to the increasing number of requests and the interdependency of projects.

21 **Q. What are some of the factors that contribute to the length of this timeline?**

22 A. By far the biggest source of delay is the re-study process. For each of the three primary
23 studies (Feasibility, System Impact, and Facilities), if a higher-queued project drops out then

1 PacifiCorp must re-study all of the lower queued projects to determine how the system impact and
 2 facilities needs/costs may have changed. Using my earlier example of customers Q1 through
 3 Q100, if customer Q23 drops out of the queue, any of the succeeding studies for customers Q24
 4 through Q100 that have already been performed using assumptions about what facilities will be
 5 built and in-service for customer Q23 will now have to be re-done using new assumptions about
 6 the generators and facilities that are in-service. The graphic below illustrates the challenge with
 7 this serial procedure: because each generator’s studies build upon the studies done previously, a
 8 change to the assumptions resulting from a generator dropping out of the queue can disrupt the
 9 entire process.



10

11 **Q. What consequences, if any, does an Interconnection Customer face if it withdraws**
 12 **from the queue before executing an agreement?**

13 **A.** The Interconnection Customer faces relatively inconsequential consequences under the
 14 existing process. In particular, under the LGIP, an Interconnection Customer may withdraw from
 15 the queue at any point. It will owe to the Transmission Provider “all costs that the Transmission
 16 Provider prudently incurs with respect to that Interconnection Request” before receipt of the

1 customer's notice of withdrawal. Typically, these are study charges (if any) that are outstanding.
2 If the amount of the customer's deposit plus any study payments received exceeds the
3 Transmission Provider's study costs, the excess is refunded back to the Interconnection Customer,
4 plus interest.

5 **Q. About how often do projects drop out of the queue prior to executing an**
6 **interconnection agreement?**

7 A. Historically, around three quarters, or 75%, of all interconnection requests submitted to
8 PacifiCorp withdraw from the queue at some point, most before receiving an interconnection
9 agreement.

10 **Q. Is the withdrawal of a higher-queued project the only activity that results in this re-**
11 **study process?**

12 A. No. A re-study is also triggered if a higher-queued project makes a modification to its
13 proposed generator or to some other aspect of its interconnection request. One issue that
14 PacifiCorp sees frequently is Interconnection Customers electing to be studied for both NRIS and
15 ERIS as allowed under PacifiCorp's current LGIP. Interconnection Customers that choose this
16 option are not required to choose either ERIS or NRIS until the Facilities Study phase. This
17 frequently results in re-studies of lower priority Interconnection Requests due to the change in
18 assumptions used in the lower priority studies. Another common modification that is allowed
19 under PacifiCorp's current LGIP, and which leads to re-studies of lower priority Interconnection
20 Requests, is the reduction in a generator's proposed output. These kinds of changes all require a
21 re-study for projects further behind in the queue.

22 **Q. Are re-studies a common occurrence under the current interconnection process?**

1 A. Yes. Due to the interdependence of one project's studies on the next, changes to a single
2 project have a cascading effect on all of the projects behind it in the queue. As I noted before,
3 approximately 75% of all interconnection requests withdraw from the queue at some point,
4 meaning that the need to re-study a project at least once due to the withdrawal of a higher queued
5 project occurs more frequently than not.

6 **Q. Are there other factors that are driven by Interconnection Customers that result in**
7 **delays of PacifiCorp's ability to process Interconnection Requests?**

8 A. Yes. Interconnection Customers frequently make requests that PacifiCorp must analyze
9 that fall outside the typical study process. For example, Interconnection Customers almost
10 universally request technological changes to turbines or inverters that were submitted with the
11 initial Interconnection Request. This requires PacifiCorp to review the new technology to
12 determine whether it is an acceptable technological change. Additionally, PacifiCorp frequently
13 receives requests from Interconnection Customers to evaluate whether a change proposed by an
14 Interconnection Customer would be a Material Modification under the LGIP. Both of these types
15 of requests do not necessarily result in re-studies of lower priority Interconnection Requests, but
16 do require PacifiCorp's generation interconnection personnel to devote significant time in
17 evaluation at the expense of other activities.

18 **Q. Can PacifiCorp effectively process the queue with this number of interconnection**
19 **requests that are now pending?**

20 A. Not effectively, no. As I highlighted earlier, the number of MW associated with pending
21 interconnection requests in the queue is roughly 40,000 MW -- more than three times the load on
22 PacifiCorp's entire system (based on a 2018 combined peak load of around 12,700 MW).

23 **4. Suspension Issues**

1 **Q. If a generator's interconnection request is studied and the interconnection request is**
2 **granted on the PacifiCorp system, does that mean the generator will then be built and**
3 **actually connected to the system to serve load?**

4 A. No. Attached to my testimony as Exhibit PAC-1.2 are maps dating to October 9, 2019
5 showing the PacifiCorp transmission system and the status of interconnection requests throughout.
6 Approximately 25% of all interconnection requests received by PacifiCorp go on to achieve
7 commercial operation; these are represented by green dots on the map. Currently there are about
8 35 interconnection requests totaling 2,000 megawatts that have proceeded forward into design
9 and/or construction, which are the blue dots. However, there are approximately 50 interconnection
10 requests totaling more than 4,000 megawatts that have executed interconnection agreements that
11 have yet to proceed forward, which are in red. The remaining yellow dots are projects still under
12 study.

13 **Q. Why have these projects not moved forward on construction?**

14 A. Under the LGIA, an Interconnection Customer may suspend construction for up to three
15 years. This may not sound like a very long time, but the suspension provisions can have a ripple
16 effect on other customers because Network Upgrades for one project may be contingent facilities
17 for other projects in the queue. Thus, if the project with Network Upgrade responsibility suspends
18 construction, this effectively delays all of the other projects that are relying on those upgrades.
19 And if the project ultimately drops out after its suspension period ends, the next Interconnection
20 Customer may also suspend and push out commercial operation dates for others.

21 **Q. Do all Interconnection Customers who request suspension use the full three-year**
22 **period?**

1 A. Yes, in my experience, almost all customers who request suspension use the full three-year
2 period.

3 **Q. Of the 50 interconnection requests with executed interconnection agreements, how**
4 **many of these are in suspension?**

5 A. Exhibit PAC-1.2 shows eight projects in suspension, representing approximately 800 MW.
6 For those projects identified by red dots on the maps that are not in suspension, the date for the
7 provision of required Financial Security from the Interconnection Customer has not yet been
8 reached, and therefore there is no reason for the Interconnection Customers to invoke the
9 suspension provision now.

10 **Q. Can an Interconnection Customer suspend its interconnection agreement beyond**
11 **three years?**

12 A. No. Under the LGIA, if the Interconnection Customer has not requested the Transmission
13 Provider to recommence work at the end of the suspension period, the LGIA is automatically
14 terminated.

15 **Q. Are there any consequences to the Interconnection Customer if the LGIA terminates**
16 **early?**

17 A. No, there are not significant consequences. The LGIA provides that if the agreement
18 terminates early, one party may owe to the other party costs that the other party has incurred prior
19 to termination. The extent of these costs depends on when the customer suspended. Many times,
20 customers will provide notice of suspension before any design or construction activity has
21 commenced, so if a termination does occur there are little or no costs incurred under the LGIA.

22 **Q. Are these same suspension issues present under SGIA's?**

23 A. No. The SGIA does not have a suspension provision.

1 **III. Stakeholder Engagement and Feedback**

2 **Q. How did PacifiCorp become aware of the backlog in its generator interconnection**
3 **queue?**

4 A. The PacifiCorp personnel in charge of managing the interconnection queue began to notice
5 both the increase in requests, as well as the increasing difficulty in completing the studies in a
6 timely manner because of re-study issues and the volume of requests in the queue.

7 **Q. Did any Interconnection Customers or stakeholders raise issues with the status of**
8 **PacifiCorp's interconnection queue?**

9 A. Yes, our stakeholders and customers have been open with us about their frustrations with
10 the current interconnection process.

11 **Q. Has PacifiCorp discussed with its stakeholders or customers the proposed reforms**
12 **that it is now proposing?**

13 A. Yes. For the six months, PacifiCorp has engaged in dialog with its stakeholders and
14 customers about the need for queue reform and what features such reform might include.
15 Beginning on June 25, 2019, PacifiCorp posted a notice of queue reform stakeholder process,
16 inviting interested parties to participate in a meeting on July 10, 2019 to discuss the status of the
17 queue and how it might be addressed. After the July 10 meeting, PacifiCorp announced that a
18 second meeting would occur on August 7, 2019 and requested feedback on specific questions
19 related to reform of the interconnection queue process. PacifiCorp drafted and posted strawmen
20 detailing the potential reforms and inviting comments from interested parties on September 10,
21 October 28, and November 27, 2019. In addition to the July 10 and August 7 meetings, PacifiCorp
22 also held meetings on September 11, and October 9, 2019. The company received three rounds of
23 comments on the strawmen, with the last round of comments provided on December 9, 2019.

1 PacifiCorp disseminated information about these efforts via OASIS posting and emails. The
2 documents that PacifiCorp produced and the stakeholder comments received are posted on
3 PacifiCorp’s OASIS at <https://www.oasis.oati.com/ppw/index.html> under “Interconnection Queue
4 Reform 2019.”

5 **Q. How would you characterize stakeholders’ reaction to PacifiCorp’s proposed**
6 **reforms?**

7 A. Stakeholders are aware of the challenges I discussed earlier with respect to the current
8 serial queue process: the influx of interconnection requests, the re-study issues, suspension of one
9 project impacting the in-service date of other projects depending on the same Network Upgrades.
10 Generally, the stakeholders agree that queue reform is necessary to improve PacifiCorp’s
11 interconnection process prospectively, as well as address the speculative or unready projects
12 currently in the queue that are inhibiting interconnection of other, viable projects. With the reforms
13 proposed herein, PacifiCorp has sought to balance stakeholder concerns regarding how changes to
14 the interconnection process will impact their projects with a very real need to clear out the backlog
15 of projects that have effectively halted the interconnection queue in its current form.

16 During this process, stakeholders expressed a clear preference to align the timing of the
17 queue reform proposal with PacifiCorp’s 2020 RFP. During PacifiCorp’s stakeholder process,
18 stakeholders noted that it would be harmful to the development community if the timing of queue
19 reform is not properly aligned with the commercial opportunity presented by the 2020 RFP.

20 **IV. Proposed Reforms to the PacifiCorp Generator Interconnection Process**

21 **Q. Can you summarize the changes to the interconnection process that PacifiCorp is now**
22 **proposing?**

1 A. PacifiCorp’s proposal is comprised of two main components. First, I will describe the
2 prospective changes to the LGIP that will apply to new entrants to the interconnection queue,
3 which are designed to enhance the efficiency of the interconnection process. These changes
4 include moving to a “first-ready, first-served” approach, using clustered studies, and requiring
5 certain demonstrations of commercial readiness in order for an Interconnection Customer to be
6 studied.

7 Second, I will describe the transition-related changes to the interconnection queue, which
8 will apply to requests in the interconnection queue as of the date of this filing (“Transition Close
9 Date”). Like the prospective process, the Transition Process will focus on a “first-ready, first-
10 served” approach, albeit with more stringent demonstrations of commercial readiness, and will
11 also use clustered studies. The timeline for the Transition Process is based upon the need for
12 stakeholder request for certainty in interconnection rules before PacifiCorp’s 2020 RFP.

13 **A. Prospective Changes**

14 **Q. How would you summarize the prospective changes to the interconnection queue?**

15 A. These changes would apply to new generators that submit interconnection requests after
16 the Transition Close Date. Because of the volume of generators currently seeking to interconnect
17 with the PacifiCorp system, many of which will never actually be built, the proposal switches to a
18 “first ready, first served” process, which will provide large generators that demonstrate project
19 readiness with access to interconnection service. These reforms include two important features.
20 First, they apply across the board for large generators regardless of who submitted the
21 interconnection request or who the ultimate purchaser of that power may be. For example, they
22 apply if PacifiCorp is the Interconnection Customer, if any other entity is the Interconnection

1 Customer, if PacifiCorp is the sponsoring utility (i.e., the buyer or the developer), or if any other
2 entity is the sponsor.

3 Second, nothing stands in the way of a large generator receiving interconnection service
4 provided it meets the required readiness milestones under the proposed queue revisions. The
5 timing of their interconnection service may be impacted, but this would likely happen anyway
6 under the current serial queue process if an Interconnection Customer proceeds to an LGIA and
7 then suspends construction (or due to any number of delays that can occur under the current LGIP).

8 **Q. What are the specific changes is PacifiCorp proposing to implement prospectively?**

9 A. The changes are:

- 10 • Commercial readiness criteria for large generators seeking to enter a cluster study (small
11 generators will not be subject to commercial readiness criteria);
- 12 • Increased site control requirements for large generators (small generators will continue to
13 be required to submit documentation of site control with their Interconnection Request in
14 accordance with PacifiCorp's SGIP);
- 15 • Performance of interconnection studies on clustered basis, and sharing of Network
16 Upgrade costs among the Interconnection Customers within a cluster (which will apply to
17 customers under the SGIP as well);
- 18 • Requiring Interconnection Customers to choose NRIS or ERIS at the time they make their
19 interconnection requests, and have any changes to that service type be subject to a Material
20 Modification analysis;
- 21 • Additional demonstration of commercial readiness and site control for large generators
22 after the performance of the clustered study and issuance of the study report, but before
23 proceeding to the Facilities Studies for each customer in the cluster;

- 1 • Penalties for large generators that withdraw from the interconnection process, which
2 increase in severity the later in the process a customer withdraws;
- 3 • Clarifications regarding the amount of time an Interconnection Customer may suspend
4 construction under an LGIA, so that if the commercial operation date is extended beyond
5 three years from the agreed-upon date, it will be considered a Material Modification and
6 result in termination of the LGIA; and
- 7 • For large generators that cannot yet meet the initial commercial readiness criteria necessary
8 to enter a study cluster, or for any small generators seeking additional information,
9 PacifiCorp will perform non-binding informational studies which will provide valuable
10 information regarding necessary interconnection facilities and estimated costs related to
11 the potential interconnection.

12 I will detail each of these features of the prospective changes to the LGIP below. It is important
13 to note that the queue reforms proposed by PacifiCorp closely track queue reforms that have been
14 approved by the Commission for other transmission providers, as well as the California
15 Independent System Operator, Inc. (“CAISO”), which I also discuss further below.

16 ***I. Commercial Readiness Criteria***

17 **Q. How do Commercial Readiness criteria fit into PacifiCorp’s revised LGIP proposal?**

18 A. One of the features of the proposed changes is moving from a serial queue study process
19 to a cluster study process where multiple projects will be studied at once. The window for an
20 Interconnection Customer to be included in a cluster study will open annually on the first April 1st
21 that occurs after commencement of the Transition Process, and annually every April 1st thereafter.
22 If the Commission approves this queue reform proposal effective April 1, 2020 as requested, then
23 the initial window will open on April 1, 2021. To be included in the cluster study, LGIP

1 Interconnection Customers will need to meet certain commercial readiness requirements (or
2 “Commercial Readiness Criteria”).

3 **Q. Will SGIP customers be required to meet the Commercial Readiness Criteria?**

4 A. No. While SGIP customers will also be included in the clusters, they will not be required
5 to make the same commercial readiness demonstration to be included.

6 **Q. Why is PacifiCorp distinguishing between LGIP customers and SGIP customers for
7 purposes of the Commercial Readiness?**

8 A. Based on the current interconnection queue, large generators (those with an output in
9 excess of 20 MW) constitute far more of the backlog than small generators do. Large generation
10 projects represent 161 requests for over 37,000 MW of interconnection service in the current
11 queue, versus 73 requests for 2,741 MW of interconnection service for all other kinds of projects
12 (projects subject to the SGIP or state interconnection processes). Thus, it is appropriate to apply
13 a gating mechanism (in the form of commercial readiness) to the large generators before they can
14 be included in a cluster study, in the hopes of eliminating this kind of backlog going forward.

15 **Q. What does PacifiCorp propose for the Commercial Readiness Criteria?**

16 A. A large generation project will need to demonstrate commercial readiness by meeting one
17 of the following criteria:

- 18 • An executed term sheet (or comparable evidence) related to a contract for sale of (i) the
19 constructed Generating Facility to a load-serving entity or to a commercial, industrial, or
20 other large end-use customer; (ii) the Generating Facility’s energy where the term of sale
21 is not less than five years; or (iii) the Generating Facility’s ancillary services if the
22 Generating Facility is an electric storage resource where the term of sale is not less than
23 five years;
- 24 • An executed contract binding upon the parties for sale of (i) the constructed Generating
25 Facility to a load-serving entity or to a commercial, industrial, or other large end-use
26 customer; (ii) the Generating Facility’s energy where the term of sale is not less than five
27 years; or (iii) the Generating Facility’s ancillary services if the Generating Facility is an
28 electric storage resource where the term of sale is not less than five years;
- 29

- 1
- 2 • Reasonable evidence that the project has been selected in a procurement process by or for
 - 3 a load-serving entity, is being developed by a load-serving entity, or is being developed
 - 4 for purposes of a sale to a commercial, industrial, or other large end-use customer; or
 - 5
 - 6 • A refundable deposit of \$3,000 per MW of requested interconnection service in lieu of
 - 7 showing commercial readiness.

8 These criteria recognize the methods by which load-serving entities in the West procure
9 generation, and how projects get financed. The flexibility afforded by the term sheet and “in-lieu-
10 of” payment options acknowledges that final interconnection costs might be required before a
11 generation project can commit to binding PPA pricing.

12 **Q. How did PacifiCorp develop the “in-lieu-of” payment amount of \$3,000 per MW?**

13 A. This is based on a similar commercial readiness “in-lieu-of” payment of \$2,000 per MW
14 that the Commission approved for Public Service Company of New Mexico (“PNM”) in 2011, in
15 Docket No. ER11-3522-000. Due to both the passage of time since PNM’s in-lieu-of payment
16 was approved, and the relative size of PacifiCorp’s interconnection queue compared to PNM’s in
17 2011 (44 large generator interconnection requests totaling 14,918 MW on PNM’s system at the
18 time, compared to 161 large generator interconnection requests for 37,000 MW on PacifiCorp’s
19 system), the higher amount is appropriate.

20 **Q. What concerns, if any, does PacifiCorp have that the “in-lieu-of” option could result**
21 **in generators that may not ultimately be commercially viable proceeding through the**
22 **interconnection process?**

23 A. There is some risk associated with allowing payment in lieu of a commercial readiness
24 demonstration, as an Interconnection Customer can simply pay to be included in a cluster without
25 having a truly viable project. However, stakeholders voiced concern that not including this option
26 would foreclose opportunities for all but a few projects to enter cluster studies. Thus, the in lieu

1 of option responds to stakeholder feedback and allows greater flexibility for Interconnection
2 Customers.

3 Additionally, while large generators have the option to submit a term sheet or payment in
4 lieu of a commercial readiness demonstration to enter a cluster, after the cluster study process is
5 complete and before a project-specific Facilities Study Agreement is tendered, an Interconnection
6 Customer will need to either (a) comply with one of the other commercial readiness criteria or (b)
7 submit financial security equal to the customer's liability for funding Network Upgrades
8 associated with its interconnection (net of its deposit already provided).

9 **Q. What will PacifiCorp do with this additional financial security required of**
10 **Interconnection Customers that choose to use the “in lieu of” option?**

11 A. If the project reaches commercial operation, then the deposit and any financial security will
12 be refunded to the Interconnection Customer (unless it is retained as up-front funding for Network
13 Upgrades). If the project withdraws from the interconnection process or terminates its LGIA, then
14 the deposit and financial security will be refunded back to the customer once it has paid a
15 withdrawal penalty.

16 **2. *Site Control Requirements***

17 **Q. What is “site control”?**

18 A. Under the currently effective LGIP, the term “Site Control” refers to documentation that
19 an Interconnection Customer provides showing that it has: “(1) ownership of, a leasehold interest
20 in, or a right to develop a site for the purpose of constructing the Generating Facility; (2) an option
21 to purchase or acquire a leasehold site for such purpose; or (3) an exclusivity or other business
22 relationship between Interconnection Customer and the entity having the right to sell, lease or grant
23 Interconnection Customer the right to possess or occupy a site for such purpose.” Demonstration

1 of Site Control or a \$10,000 deposit is a prerequisite to submitting an interconnection request under
2 the current LGIP.

3 **Q. How will Site Control change under PacifiCorp’s proposal for the prospective LGIP?**

4 A. As in the current LGIP, an Interconnection Customer will need to provide evidence of Site
5 Control or a \$10,000 deposit at the time it submits its Interconnection Request; however, before
6 the Interconnection Customer can proceed to the Facilities Study phase after the cluster study is
7 complete, a customer who initially submitted a deposit will need to submit Site Control evidence.
8 This means that actual Site Control will be required earlier in the process than it is today, and there
9 will be no payment in lieu of option at the Facilities Study phase as there is today. PacifiCorp is
10 also proposing a more stringent and comprehensive definition for Site Control than under the *pro*
11 *forma*:

12 **Site Control** shall mean ~~documentation reasonably demonstrating~~the exclusive
13 land right to develop, construct, operate, and maintain the Generating Facility over
14 the term of expected operation of the Generating Facility. Site Control may be
15 demonstrated by documentation establishing: (1) ownership of, a leasehold interest
16 in, or a right to develop a site ~~for the purpose of constructing~~of sufficient size to
17 construct and operate the Generating Facility; (2) an option to purchase or acquire
18 a leasehold ~~site for such purpose; or (3) an exclusivity or other business relationship~~
19 ~~between~~interest in a site of sufficient size to construct and operate the Generating
20 Facility; or (3) any other documentation that clearly demonstrates the right of the
21 Interconnection Customer and the entity having the right to sell, lease or grant
22 ~~Interconnection Customer the right to possess or occupy a site for such purpose to~~
23 exclusively occupy a site of sufficient size to construct and operate the Generating
24 Facility. Site Control for any co-located project is demonstrated by a contract or
25 other agreement demonstrating shared land use for all co-located projects that meet
26 the aforementioned provisions of this Site Control definition.

27 This definition requires the demonstration of exclusive land rights to a parcel of sufficient
28 size to accommodate the proposed generator. It is based upon the definition of Site Control that
29 the Commission recently approved in Docket No. ER19-2774-000 for Public Service Company of
30 Colorado (“PSCo”), but unlike PSCo and at the request of PacifiCorp’s stakeholders, does not

1 require Interconnection Customers to demonstrate Site Control with respect to Interconnection
2 Customer's Interconnection Facilities. Like PSCo, PacifiCorp will maintain on OASIS
3 information regarding required site size per MW, but will allow customers to propose alternative
4 specifications subject to submission of an engineer's certificate regarding the adequacy of the site
5 size.

6 **3. Cluster Studies**

7 **Q. Please summarize the cluster study process.**

8 A. A new cluster study window will open on the first April 1st that occurs after
9 commencement of the Transition Process, and annually every April 1st thereafter. For those valid
10 Large Generator Interconnection Requests that have satisfied the commercial readiness and Site
11 Control criteria, PacifiCorp will conduct a cluster study to identify the Network Upgrades
12 necessary to interconnect all of the projects in that cluster. Depending on if any re-studies are
13 necessary, after the final cluster study reports are issued, PacifiCorp will perform Facilities Studies
14 for each of the individual Interconnection Customers in the cluster that have met the Commercial
15 Readiness Criteria or have provided financial security equal to their allocable share of Network
16 Upgrades.

17 **Q. Why is PacifiCorp proposing to open its cluster windows annually?**

18 A. PacifiCorp has planned its processes in part to coincide with the annual interconnection
19 processes of the CAISO. Given the proximity of the PacifiCorp system to the CAISO, many of
20 the same developers participate in both interconnection processes. Additionally, having an annual
21 process should allow PacifiCorp sufficient time to complete a cluster study (and at least one re-
22 study, if it is necessary) before the next cluster opens.

23 **Q. Will PacifiCorp perform the cluster studies on a system-wide basis?**

1 A. No. Given the size of the company’s transmission system, PacifiCorp proposes to conduct
2 separate cluster studies for different areas of the system based on the proximity of projects within
3 a cluster to each other, and any other factors that PacifiCorp determines are relevant to the study
4 process such as the results of other cluster studies and resulting transmission system
5 improvements, the location of new planned transmission expansion, and the location of any
6 generator retirements. This clustering approach is similar to the approach approved in PNM’s
7 interconnection queue reform proceeding in Docket No. ER11-3522-000 (see PNM LGIP Section
8 4.2.2).

9 **Q. How will the cluster studies account for the results of prior studies?**

10 A. In an effort to reduce the re-study process, each cluster study will use the final results of
11 previously completed clusters as their starting point.

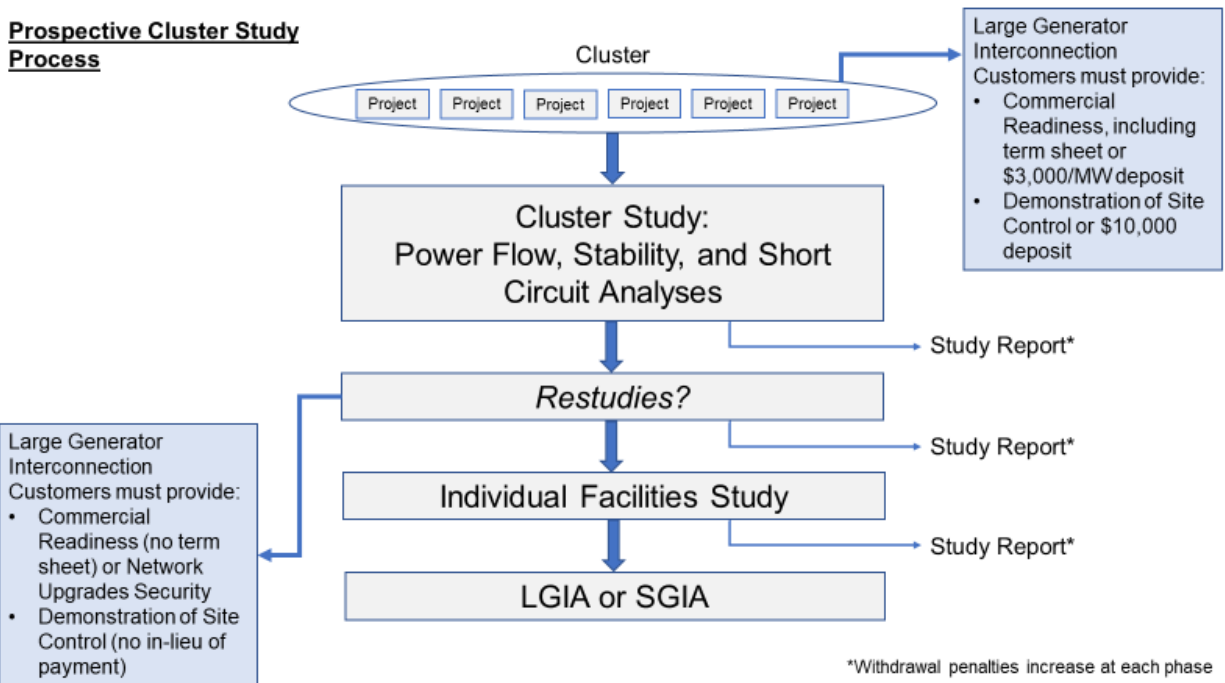
12 **Q. How will PacifiCorp perform the cluster studies?**

13 A. The proposed cluster study process will be an iterative process generally based on the study
14 process in the OATT. The study process will proceed with the following steps:

- 15 • Cluster study, i.e., power flow, stability, and short circuit analyses. These analyses will
16 determine what Interconnection Facilities and Network Upgrades are required for
17 interconnection and will provide Interconnection Customers with an initial estimate of the
18 cost to interconnect. Once these analyses are complete, PacifiCorp will issue cluster study
19 reports to the customers in the cluster.
- 20 • If an Interconnection Customer or customers withdraw after the cluster study report is
21 published, or if there are other changes to study assumptions that require re-studies,
22 PacifiCorp will repeat the power flow, stability, and short circuit studies for the modified
23 cluster, and then issue updated cluster study reports.

- As discussed above, large generators that entered the cluster with the \$3,000/MW in lieu of payment or with a term sheet will be required to either demonstrate firmer commercial readiness (beyond a term sheet) or will have to provide financial security equal to the amount of Network Upgrades. Additionally, large generators that provided a deposit in lieu of Site Control will have to demonstrate actual Site Control. For the Interconnection Customers that meet these requirements, PacifiCorp will perform an individual Facilities Study and issue a Facilities Study report to that customer.
- Finally, PacifiCorp and each Interconnection Customer will negotiate and execute the LGIA.

The graphic below shows how the process will work:



Q. How will small generators be accounted for in this process?

1 A. In general, projects that fall under the SGIP will be included in the cluster process, but the
2 current *pro forma* SGIP will continue to apply otherwise. As the flow chart shows, the “fast-track”
3 and inverter processes will still be available to those small generators that qualify for their
4 application.

5 **Q. Why is PacifiCorp proposing to study large generators and small generators together**
6 **in the clusters?**

7 A. As I previously explained, while they may have different procedures, all of PacifiCorp’s
8 Interconnection Customers are currently processed serially through the same queue. In addition,
9 in PacifiCorp’s experience, most small generators are susceptible to the same issues as large
10 generators and require the same solutions. For example, if siting behind a transmission constraint
11 or a weak part of the system, a small generator may require a significant network upgrade that it
12 is incapable of funding. The small generator will be stuck waiting for completion of upgrades
13 triggered by higher-queued requests, leading to the lengthy backlogs that plague the
14 interconnection queue today.

15 **Q. Are there concerns that generators dropping out of the clusters may cause challenges**
16 **for the remaining projects?**

17 A. Yes, but PacifiCorp has designed the revised process to balance the need for flexibility
18 with the need for certainty. While Interconnection Customers may be able to enter the cluster by
19 using in lieu of payments to satisfy the Site Control and commercial readiness requirements, these
20 criteria become more stringent to move forward in the process. Further, as I will discuss below,
21 PacifiCorp proposes to assess penalties on large generators that withdraw from the process, which
22 will increase the later in the process a project drops out. The goal of combining these features is
23 to deter non-ready and undefined projects from entering a cluster as a fact-finding exercise before

1 they are meaningfully ready to proceed. Thus, the revised process is intended to minimize the risk
2 of projects dropping out and requiring re-study for those that remain.

3 **Q. What will be the charges for these cluster studies?**

4 A. Interconnection Customers in a cluster will only be responsible for their allocable share of
5 the actual cost of performing the cluster studies. However, customers will need to submit study
6 deposits at the time they submit their interconnection requests in the following amounts:

- 7 • \$75,000 for requests of more than 20 MW and less than 50 MW, or
- 8 • \$150,000 for requests of 50 MW and greater, but less than 200 MW, or
- 9 • \$250,000 for requests of 200 MW and greater.

10 These deposit amounts are consistent with the approaches adopted by PSCo and PNM. If a
11 project's study deposit amount is greater than its actual share of study costs, excess funds will be
12 applied either to the next phase of the study process, or, when the cluster study process concludes
13 (after the individual Facilities Study report has issued), refunded to the Interconnection Customer.
14 If a project withdraws from the cluster, the deposit may be applied to withdrawal penalty amounts.

15 **Q. How will study costs be allocated among the Interconnection Customers within a**
16 **cluster?**

17 A. Half of the costs of the cluster study process will be allocated to each customer based on
18 the number of customers in the cluster, and half of the costs will be allocated on a pro rata basis
19 based on project size in MW. This applies to the allocation of cluster study costs, separate from
20 Facilities Studies costs, which will be tracked and allocated to each Interconnection Customer
21 individually.

22 **Q. Can you walk through how the cluster study cost allocation will work in practice?**

23 A. Yes. Let's assume that there are ten projects in a cluster. Nine of those projects are 10
24 MW each, and the final project is 100 MW, for a total of 190 MW in the cluster. Also assume that

1 the total cluster study costs come to \$100,000. Half of those costs, or \$50,000, will be allocated
2 among the customers in the cluster equally: $\$50,000 \div 10 = \$5,000$ per project in the cluster.

3 The remaining \$50,000 will be allocated on a pro rata basis based on project size. The 100
4 MW project is about 53% of the total 190 MW, so it will be allocated roughly 53% of the remaining
5 cost, or around \$26,500. Each 10 MW project is about 5.3% of the total 190 MW, so they will
6 each be allocated about \$2,630. Based on this example, a 10 MW project will pay about \$7,600
7 in total cluster study costs, and the 100 MW project will pay about \$31,500. These numbers are
8 illustrative only, as the allocations will depend on the make-up of the clusters and PacifiCorp's
9 actual costs in performing the cluster studies.

10 **4. *Sharing of Network Upgrades***

11 **Q. What, if anything, does the LGIP currently require for funding of network upgrades**
12 **under the serial study process?**

13 A. Under the current process, Interconnection Customers provide the up-front funding for the
14 Network Upgrades that are needed to provide their requested interconnection service. These
15 amounts are eventually refunded to the Interconnection Customer, and PacifiCorp recovers the
16 costs of the Network Upgrades through transmission service rates.

17 **Q. How will this change under the proposed cluster study approach?**

18 A. The overall requirement of up-front funding for Network Upgrades will not change, but
19 due to the clustered study process, the method of allocating responsibility for funding of Network
20 Upgrades requires modification. Under PacifiCorp's proposal, Network Upgrades will be divided
21 into two categories:

- 22 • Station equipment Network Upgrades, including all equipment located in the station to
23 which the generator is connecting; and

- 1 • All other Network Upgrades, including transmission lines, transformers, and distantly
2 located breakers.

3 Costs for the first category of Network Upgrades will be allocated on a per capita basis (i.e., per
4 Interconnection Request) based on the number of generators interconnecting at an individual
5 station. For all other Network Upgrades (the second category I mentioned), costs will be allocated
6 among the Interconnection Customers within a cluster based on their proportional capacity within
7 the cluster. Additionally, if a Cluster Study includes multiple Cluster Areas, such costs shall be
8 calculated and allocated among Interconnection Customers within the same Cluster Area.

9 **Q. Does this proposed allocation methodology also apply to SGIP projects included in**
10 **the cluster?**

11 A. Yes, except that if an Interconnection Request is 1% or less of the total MW in a cluster, it
12 will not have to provide financing for Network Upgrades. For example, if there are 3,000 MW of
13 Interconnection Requests in a cluster, a 10 MW project, which would constitute only 0.33% of the
14 total MW in the cluster would not have responsibility for Network Upgrades.

15 **5. NRIS and ERIS**

16 **Q. How will the cluster study process take into account NRIS and ERIS services?**

17 A. The cluster study will first assume that all projects in the study have requested ERIS and
18 analyze the facilities needed to accommodate that level of service. After that, the study will
19 identify those Interconnection Customers who have requested NRIS and identify the incremental
20 Network Upgrades needed for those interconnection requests.

21 **Q. Will customers be able to switch between NRIS and ERIS to the same degree they can**
22 **under the current LGIP?**

1 A. No. An Interconnection Customer will need to identify whether it is requesting NRIS or
 2 ERIS at the time it submits its interconnection request; if the customer changes its service type
 3 later in the process, this change will be subject to a Material Modification analysis.

4 **6. Penalties for Withdrawal**

5 **Q. You have mentioned previously that an Interconnection Customer will be subject to**
 6 **increasing withdrawal penalties depending on if and when the customer drops out of the**
 7 **cluster. How will the penalties work?**

8 A. PacifiCorp seeks to encourage an Interconnection Customer to enter a cluster only if a
 9 project is commercially viable. One of the incentives PacifiCorp proposes to use to avoid having
 10 projects drop out of the cluster is the imposition of withdrawal penalties for large generators. The
 11 penalties will be based on the Interconnection Customer’s share of the actual study costs for that
 12 cluster, and will apply even if the Interconnection Customer demonstrated commercial readiness
 13 when it entered the cluster. The penalties will increase according to the following timetable:

Point of Withdrawal	Means of Showing Commercial Readiness	Total Withdrawal Penalty	Penalty Cap
Receipt of Cluster Study Report	Term Sheet, PPA, or Resource Solicitation	1 times actual study costs	No Cap
Receipt of Re-Study Reports	Term Sheet, PPA, or Resource Solicitation	1 times actual study costs	No Cap
Receipt of Individual Facilities Study Report	Term Sheet, PPA, or Resource Solicitation	1 times actual study costs	No Cap
After LGIA Execution	Term Sheet, PPA, or Resource Solicitation	9 times actual study costs	No Cap
Receipt of Cluster Study Report	\$3,000/MW deposit	2 times actual study costs	\$1 million
Receipt of Re-Study Reports	\$3,000/MW deposit	3 times actual study costs	\$1.5 million
Receipt of Individual Facilities Study Report	\$3,000/MW deposit	5 times actual study costs	\$2 million
After LGIA Execution	\$3,000/MW deposit	9 times actual study costs	No Cap

14 As depicted above, for those projects that have demonstrated commercial readiness through
 15 a term sheet, power purchase agreement, or selection in a competitive solicitation, their withdrawal

1 penalties will be based upon 1x the actual study cost, depending on when the project withdraws.
2 For projects that have submitted a \$3000/MW payment in lieu of demonstrating actual commercial
3 readiness, the penalties increase in magnitude (again based upon actual study costs) the later in the
4 process a project withdraws. For any project that withdraws after execution of an LGIA, regardless
5 of how it demonstrated commercial readiness to enter the cluster, the penalty will be 9x the actual
6 study costs.

7 **Q. Will there be any exceptions to the penalties, or will they apply to all large projects**
8 **that drop out?**

9 A. There will be some exceptions. Withdrawal penalties will not apply to any small projects
10 and to large projects if:

- 11 • The withdrawal of the large generator does not negatively affect the timing or cost of
12 other projects within the same Cluster as determined by Transmission Provider;
13
- 14 • The large generator withdraws after receiving the most recent Cluster Study Report and
15 the costs assigned to the Interconnection Request identified in that report have increased
16 by more than twenty-five percent (25%) compared to costs identified in the previous
17 Cluster Study Report; or,
18
- 19 • The large generator withdraws after receiving the individual Facilities Study report and
20 the costs assigned to the Interconnection Request identified in that report have increased
21 by more than 100 percent compared to costs identified in the most recent Cluster Study
22 Report.

23 **Q. What will PacifiCorp do with the revenues associated with any penalties that it**
24 **receives?**

25 A. PacifiCorp will not retain any of the penalty revenues. Instead, they will be used to credit
26 other Interconnection Customers in the cluster for their respective shares of the study costs, and,
27 if any penalty revenues remain after that, they will be applied as a credit against study costs for
28 projects in a subsequent cluster (or clusters) until all of the penalty revenues have been distributed.

1 **Q. How will PacifiCorp demonstrate that it has not retained any withdrawal penalty**
2 **revenues?**

3 A. The company will maintain information about the withdrawal penalty balances and
4 distributions on OASIS.

5 **7. *Extensions and Suspensions***

6 **Q. What happens if a project is still planning to move forward, but needs to delay its**
7 **originally proposed in-service date?**

8 A. PacifiCorp recognizes that circumstances may arise in the course of developing a project
9 that may warrant a shift of the generator's commercial operation. Nevertheless, PacifiCorp is
10 proposing to clarify the provisions regarding suspension and extension in the LGIA to make it
11 clear that if a project's commercial operation date extends beyond three cumulative years from the
12 originally proposed date, this will be subject to a Material Modification analysis which could result
13 in termination of the agreement. There will be some limited exceptions for extensions in certain
14 special circumstances, such as delays in the commercial operation date resulting from a delay in
15 the construction of contingent facilities, in which case the project may slip beyond the three-year
16 extension without risk of termination of its LGIA. Projects that suspend will be responsible for
17 re-study costs for other customers that arise as a result of the suspension.

18 **8. *Informational Studies***

19 **Q. If a generator does not yet qualify for the cluster study process, but desires additional**
20 **information about potential Network Upgrades and associated interconnection costs, what**
21 **options will be available?**

22 A. Under PacifiCorp's proposal, potential Interconnection Customers will be able to request
23 the performance of ad-hoc, standalone (i.e., non-clustered) informational interconnection studies,

1 which will provide Interconnection Customers with valuable project viability information without
2 committing to a formal interconnection request. The results of such studies will be non-binding.

3 **Q. What assumptions will PacifiCorp use in performing these informational studies?**

4 A. The results of the informational studies will be based upon the following fixed
5 assumptions:

- 6 • All existing generation will be assumed to be in-service;
- 7 • All projects in the definitive study process will be assumed in-service; and,
- 8 • All signed interconnection agreements will be assumed in-service.

9 These study assumptions are the same as those currently used for Feasibility Studies under
10 PacifiCorp's and the Commission's pro forma Tariff, and will ensure that informational studies
11 accurately reflect how PacifiCorp's system operates. In addition to these baseline assumptions
12 regarding the PacifiCorp system, the informational study will take into account variables and
13 assumptions provided by the customer, subject to PacifiCorp's agreement on such variables and
14 assumptions.

15 **Q. The cluster study process you described earlier has a window that opens every year.**

16 **Will there be a similar "study window" for these informational studies?**

17 A. No, there will not be a window for informational studies – they will be available at any
18 time after PacifiCorp begins its Transition Cluster Study process on October 15, 2020. This does
19 not mean that a customer may request an unlimited number of studies for its potential project.
20 Instead, similar to the Optional Interconnection Study under the current LGIP, a customer will be
21 limited to a reasonable number of study requests. Additionally, in accordance with the
22 Commission's Order No. 845 requirements, base case information will be available to customers
23 to perform their own analyses.

24 **Q. What will be the financial requirements for an informational study?**

1 A. Informational studies will require a \$10,000 deposit; any of that amount that exceeds the
2 actual study cost will be refunded to the requesting customer.

3 **B. Transition Process**

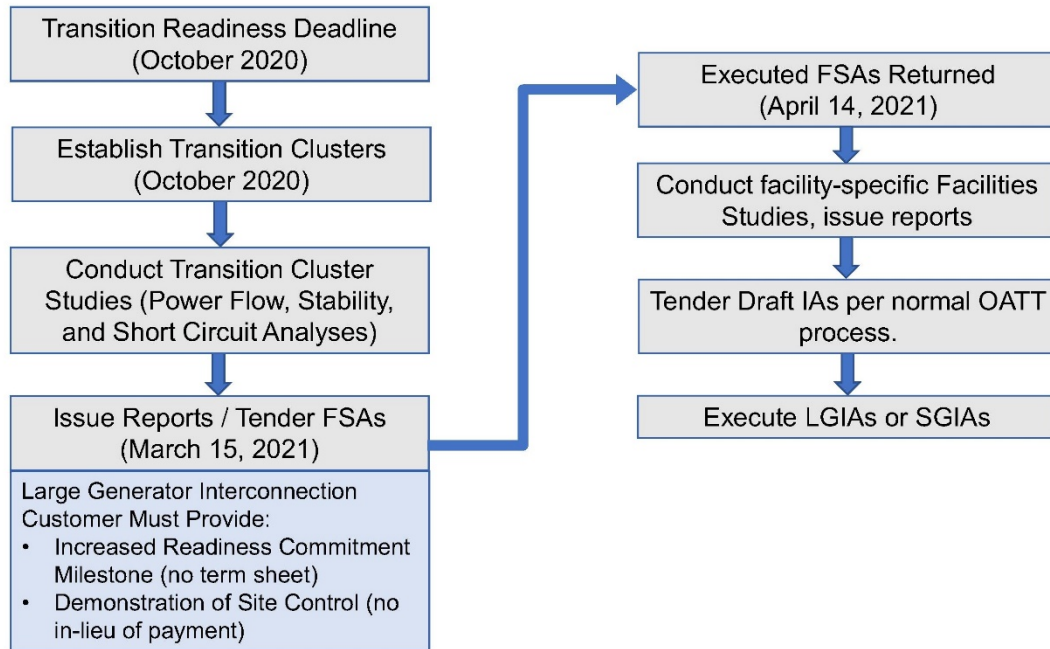
4 **Q. Will the prospective changes to the queue be sufficient to clear out the backlog of**
5 **projects currently in the interconnection queue?**

6 A. No. Although the prospective changes are intended to prevent a backlog of interconnection
7 requests on a going-forward basis, PacifiCorp’s reforms to the interconnection process will not be
8 successful unless speculative or unready LGIP projects are cleared out of the existing queue. In
9 particular, the current queue has more than three times the amount of generation than load on the
10 system, which renders the study process unmanageable.

11 In light of the above, transitional reforms are necessary to apply a “first ready, first served”
12 approach to the current process and clear out those LGIP projects that are unlikely to reach
13 commercial operation. In order to provide Interconnection Customers the requested certainty that
14 the “first ready, first served” cluster study approach is in place before PacifiCorp’s 2020 RFP,
15 PacifiCorp is requesting that its queue reform provisions become effective on April 1, 2020. The
16 Transition Process will apply to customers who have already submitted interconnection requests
17 as of the date of this filing, but that have not yet executed an LGIA or SGIA as of the effective
18 date of this filing. Only those large projects that can meet the commercial readiness criteria by
19 October 15, 2020 will be able to move forward to the Transition Process. Large projects that are
20 unable to meet the commercial readiness criteria can be processed through a subsequent cluster
21 study that will be performed under the prospective queue reforms I described earlier.

22 The following graphic illustrates the basic components of the Transition Process.

Transition Cluster Study Process



1

2 **Q. How will the Transition Process impact those Interconnection Customers with**
 3 **executed LGIAs or SGIAs?**

4 A. If an Interconnection Customer already has an executed Interconnection Agreement as of
 5 the effective date of these proposed revisions, it will not be subject to the Transition Process – the
 6 agreement will proceed according to its current terms. If a customer with an existing, executed
 7 LGIA or SGIA seeks to make changes to its agreement, those changes will be subject to a Material
 8 Modification analysis which may result in termination of the agreement.

9 **Q. Will the Transition Process accommodate late-stage projects that have substantially**
 10 **progressed through the interconnection process but have not yet executed LGIAs and**
 11 **SGIAs?**

12 A. Yes. Interconnection Customers that have been tendered a Facilities Study Agreement or
 13 are farther along in the interconnection process (i.e., including those in the Facilities Study process,

1 or those have been tendered an interconnection agreement) as of April 1, 2020 will have the option
2 to complete their interconnection process without being included in a Transition Cluster Study, or
3 they may elect to proceed under the Transition Cluster Study process. Similar to PSCo's transition
4 process, in order to proceed under the serial approach, these late-stage projects will be required to
5 show, no later than the October 15, 2020 Transition Readiness Deadline, commercial readiness in
6 the form of an executed contract for sale of either the facility or its energy (or ancillary services,
7 if applicable), or reasonable evidence that the facility has been selected in a resource solicitation
8 process. This heightened commercial readiness standard will be required for PacifiCorp to execute
9 an LGIA. Late stage projects may also opt to participate in the Transition Cluster Study process,
10 contingent upon a showing of the same (non-heightened) commercial readiness standards as apply
11 to all other currently-queued requests by October 15, 2020. In other words, late stage projects that
12 opt into the Transition Cluster Study process may demonstrate commercial readiness through an
13 executed term sheet in addition to a contract and evidence of selection in a resource solicitation
14 process. Late-stage projects that fail to meet the applicable commercial readiness requirements by
15 October 15, 2020 will be deemed withdrawn from the queue.

16 **Q. How will PacifiCorp handle Interconnection Requests submitted after the date of this**
17 **filing but before the prospective process becomes effective?**

18 A. Interconnection Requests submitted after the date of this filing but before the new
19 interconnection process becomes effective will continue to be processed under PacifiCorp's
20 currently-effective serial interconnection procedures and will not be processed under the
21 Transition Process for projects currently in the queue. As of the effective date of PacifiCorp's
22 interconnection queue reform proposal (if accepted by the Commission), such projects will be

1 governed by the prospective cluster study process, will be deemed submitted to the initial Cluster
2 Request Window in 2021, and will be studied in the initial prospective Cluster Study.

3 ***1. Commercial Readiness Criteria in the Transition Process***

4 **Q. How will commercial readiness play a role in the Transition Process?**

5 A. A significant part of the Transition Process is alleviating the burden that non-ready projects
6 are currently placing on the queue. Demonstration of commercial readiness is a necessary and
7 vital step towards achieving this goal. For an Interconnection Customer to be included in the
8 Transition Cluster Study, it will need to demonstrate satisfaction of one of the following
9 commercial readiness criteria:

- 10 • An executed term sheet (or comparable evidence) related to a contract for sale of (i) the
11 constructed Generating Facility to a load-serving entity or to a commercial, industrial, or
12 other large end-use customer; (ii) the Generating Facility’s energy where the term of sale
13 is not less than five years; or (iii) the Generating Facility’s ancillary services if the
14 Generating Facility is an electric storage resource where the term of sale is not less than
15 five years;
- 16
- 17 • An executed contract binding upon the parties for sale of (i) the constructed Generating
18 Facility to a load-serving entity or to a commercial, industrial, or other large end-use
19 customer; (ii) the Generating Facility’s energy where the term of sale is not less than five
20 years; or (iii) the Generating Facility’s ancillary services if the Generating Facility is an
21 electric storage resource where the term of sale is not less than five years; or
- 22
- 23 • Reasonable evidence that the project has been selected in a Resource Plan or Resource
24 Solicitation Process by or for a load-serving entity, or is being developed for purposes of a
25 sale to a commercial, industrial, or other large end-use customer.

26 The effect of this requirement will be to allow only those truly commercially ready projects to
27 move forward. If a project cannot meet one of the commercial readiness criteria for the Transition
28 Process, it can be included in the next (prospective) cluster study for which it can meet the non-
29 transition readiness requirements.

30 **Q. Will PacifiCorp permit payment “in lieu of” commercial readiness during the**
31 **transition?**

1 A. No. The purpose of the Transition Process readiness criteria is to allow only those large
2 projects that can demonstrate commercial readiness to be studied, thus clearing out the backlog of
3 interconnection requests. If PacifiCorp permitted payment in lieu of the commercial readiness
4 demonstration, this would defeat that purpose. For this same reason, a proof of equipment
5 purchase for a load serving entity developing its own project will not be sufficient for inclusion in
6 the Transition Cluster Study; the Interconnection Customer will need to show that the project is
7 moving forward in a procurement process.

8 **Q. Did PSCo include in lieu of payments as a commercial readiness criterion as a part of**
9 **its transitional process recently approved by the Commission?**

10 A. No.

11 **Q. Will commercial readiness requirements apply to all generators currently in the**
12 **interconnection queue?**

13 A. No. In the Transition Process, as in the prospective cluster process, the commercial
14 readiness requirement will only apply to large projects (20 MW and above). While small
15 generators that do not yet have SGIAs will process through the Transition Cluster Study, they will
16 not need to demonstrate commercial readiness.

17 **Q. Is there a specific timeline for meeting the commercial readiness requirement to be**
18 **included in the Transition Cluster Study?**

19 A. To be included in the Transition Cluster Study, a project must demonstrate commercial
20 readiness by **October 15, 2020**. This window gives all projects in the queue over eight months
21 from this filing to take the steps necessary to demonstrate commercial readiness. This is longer
22 than the thirty day period customers had to qualify for the transition under PSCo's recently-
23 approved proposal.

1 **Q. Under the prospective cluster process, there is an enhanced readiness requirement**
2 **before the individual Facilities Study phase. Will there be a similar enhancement for the**
3 **Transition Process?**

4 A. Yes. If an Interconnection Customer entered the Transition Cluster Study based on an
5 executed term sheet, it will need to have a binding, executed agreement or demonstrate that it has
6 been chosen in a procurement process before it can proceed to a Facilities Study.

7 **2. *Transition Cluster Study***

8 **Q. What happens after a project demonstrates commercial readiness?**

9 A. As with the prospective cluster study, PacifiCorp will group those projects that have
10 demonstrated commercial readiness based on geographic locations and other relevant factors. The
11 Transition Cluster Study will then be performed in a similar fashion to the prospective process,
12 with power flow/voltage and stability components leading to a transition cluster system impact
13 study report.

14 **Q. Will PacifiCorp require additional study deposits for the Transition Cluster Study?**

15 A. No. Customers will still be allocated their share of the actual study costs, but for those
16 projects already in the queue, PacifiCorp will not require additional study deposits from customers
17 under the Transition Process.

18 **Q. When the Transition Cluster Study is complete, what happens next?**

19 A. The Interconnection Customers will need to meet the enhanced readiness requirements to
20 proceed. Additionally, while a customer will be permitted to provide financial security in lieu of
21 Site Control to enter the Transition Cluster Study, it will need to demonstrate actual Site Control
22 once the Transition Cluster Study is complete. Customers who meet these requirements can then
23 move to the individual Facilities Study phase.

1 **Q. Does the proposed tariff include a special provision addressing the Transition Cluster**
2 **Study for the Gateway South transmission project?**

3 A. Yes. PacifiCorp anticipates conducting a Transition Cluster Study for the eastern
4 Wyoming region of the PACE BAA. There is significant renewable development potential in this
5 area reflected in a significant pending demand for interconnection service. The Gateway South
6 line is a component of a larger complement of transmission expansion projects known as the
7 Energy Gateway Transmission Expansion, a multi-year plan to add approximately 2,000 miles of
8 new transmission lines across the Western area of the PACE BAA. Gateway South (also known
9 as “Segment F” of the Energy Gateway project) is a 500 kV high-voltage transmission line is
10 planned to extend approximately 400 miles from the planned Aeolus substation in southeastern
11 Wyoming into the Clover substation near Mona, Utah. When in service, Gateway South will create
12 approximately 1920 MW of interconnection capability for generation projects in this area. As of
13 the date of my testimony, PacifiCorp has already signed interconnection agreements for
14 approximately 1130 MW of projects that depend on Gateway South. (I should note it is
15 conceivable that more, or even all, of the Gateway South interconnection capacity will be subject
16 to executed interconnection agreements by the requested effective date of this filing).

17 Consequently, the purpose of the Transition Cluster Study for the eastern Wyoming region
18 will be to determine how many remaining projects in the region of the queue can interconnect due
19 to the interconnection capacity created by Gateway South, and which projects may require
20 additional upgrades. Because Gateway South has been planned for some time as a component of
21 PacifiCorp’s long-term transmission plan and significant progress has been made in permitting the
22 line, Gateway South may be in-service before other incremental upgrades, it was necessary to
23 include in the tariff a rule for allocating the remaining Gateway South interconnection capacity in

1 the case that demand for such capacity exceeds that remaining capacity. Thus, to the extent that
2 there is more interconnection capacity sought by Transition Requests in the eastern Wyoming
3 Transition Cluster Study than there is remaining interconnection capacity on Gateway South,
4 PacifiCorp will allocate the remaining interconnection capacity of Gateway South using existing
5 queue positions of the cluster members to determine priority. If the eastern Wyoming cluster as a
6 whole requires more than just Gateway South, PacifiCorp will identify the incremental network
7 upgrades required for those projects in the cluster that cannot interconnect on Gateway South
8 alone.

9 **3. *Withdrawal Penalties***

10 **Q. Will withdrawal penalties play a role in the Transition Process as they do in the**
11 **prospective proposal?**

12 A. No. While PacifiCorp considered including withdrawal penalties in the Transition Process,
13 the more stringent commercial readiness requirements for the Transition Process are expected to
14 result in only those projects that have a very high probability of going into commercial operation
15 being included in the cluster study.

16 **4. *Existing LGIAs***

17 **Q. How will this Transition Process impact projects in the queue that have already**
18 **processed through the interconnection process and have interconnection agreements with**
19 **PacifiCorp?**

20 A. If a project has an executed SGIA or LGIA by the requested effective date of this filing,
21 PacifiCorp does not intend to disturb these agreements for the Transition Process. As stakeholders
22 made clear during PacifiCorp's stakeholder process, these projects have commercial expectations
23 based on their agreements. Thus, the Transition Process will apply to all interconnection requests

1 which are pending in the queue as of the effective date of the proposed changes, but will not apply
2 to any project with an executed interconnection agreement already in place as of the effective date.
3 As I noted earlier, changes to SGIAs and LGIAs will continue to be subject to the Material
4 Modification analysis under the OATT.

5 **V. Conclusion**

6 **Q. In your opinion and based on your experience, what do you think will happen if FERC**
7 **does not approve PacifiCorp’s proposal, both the Transition Process and the prospective**
8 **changes to the LGIP?**

9 A. PacifiCorp’s current serial interconnection queue has become so clogged up that it is
10 practically unworkable. It is clear that some kind of intervention is necessary to both (a) address
11 the existing backlog and (b) create a more efficient process going forward. The changes that
12 PacifiCorp is proposing in this filing have been developed over many months of consideration and
13 in concert with stakeholders, are based on interconnection processes that the Commission has
14 approved for other utilities, and balance the need to establish a clear path forward with developers’
15 commercial expectations and contractual rights. Without these changes in place in a timely
16 manner, the backlog will only continue to grow, further stymying new projects from
17 interconnecting with the PacifiCorp system and reaching customers.

18 **Q. Does this conclude your testimony?**

19 A. Yes.

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

PACIFICORP

) Docket No. ER20-__-000

VERIFICATION

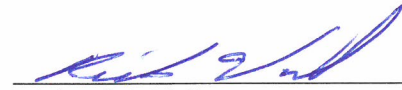
STATE OF OREGON

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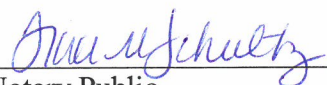
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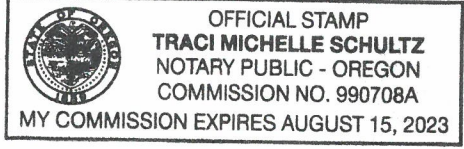
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I, Richard A. Vail, being first duly sworn, state that I am the witness identified in the foregoing prepared testimony, and that the statements of fact in the testimony and supporting exhibits are true and correct to the best of my knowledge, information, and belief.


Richard A Vail

SUBSCRIBED AND SWORN before me
the 30 day of January, 2020


Notary Public



My commission expires on: August 15, 2023

Exhibit PAC-1.1

Rick Vail Experience and Education

**Rick Vail**

Vice President, Transmission
PacifiCorp

Rick Vail is vice president of transmission for PacifiCorp, which owns and operates one of the largest privately held transmission systems in the U.S. Vail is responsible for all aspects of PacifiCorp's transmission system including planning and capital budgeting, contract administration, generator interconnection and transmission service requests, and regional transmission initiatives through the Western Electricity Coordinating Council and other regional planning groups. As part of his role, Vail is also responsible for planning and design of the Energy Gateway transmission project, one of the largest electric transmission infrastructure projects underway in the western United States,

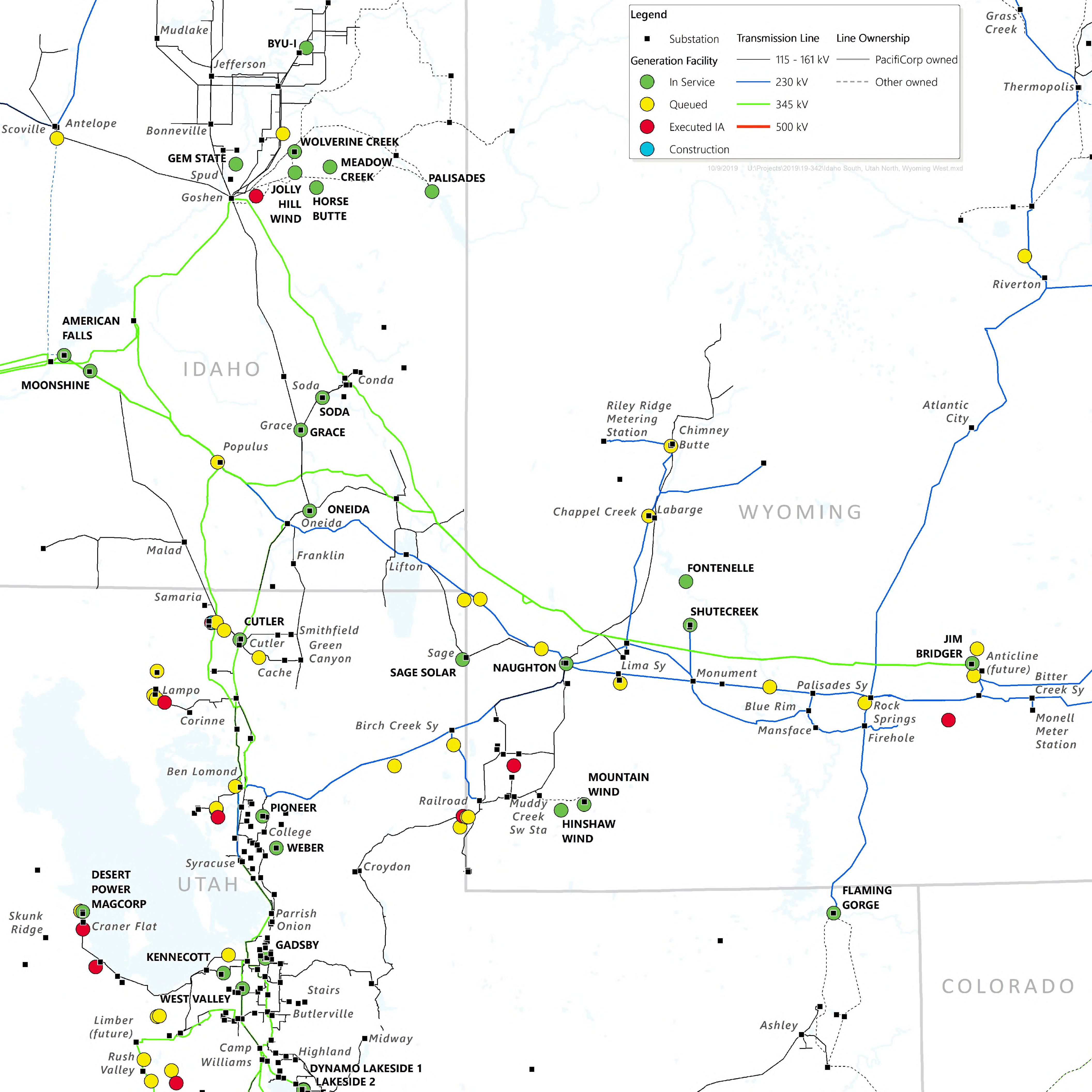
Vail joined PacifiCorp in 1988 as a student engineer in the substation design group, and later spent three years as a project engineer designing electrical substations. After five years at other firms, Vail returned to PacifiCorp in 2001.

In 2007, Vail was named director, of asset management for PacifiCorp where he was responsible for all aspects of PacifiCorp's asset strategy including 10-year capital planning, maintenance policies and budgeting, and reliability standards. Vail assumed additional responsibilities in 2010 for standards engineering, cost estimating and project services.

Vail received a Bachelor of Science Degree with Honors in Electrical Engineering (electric power systems focus) from Portland State University in Portland, Oregon.

Exhibit PAC-1.2

Maps of PacifiCorp Transmission System and
Status of Interconnection Customers



Legend

■ Substation	Transmission Line	Line Ownership
● In Service	— 115 - 161 kV	— PacifiCorp owned
● Queued	— 230 kV	- - - Other owned
● Executed IA	— 345 kV	
● Construction	— 500 kV	

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IDAHO

WYOMING

UTAH

COLORADO

Scoville

Mudlake

BYU-I

Jefferson

Bonneville

GEM STATE

Spud

Goshen

WOLVERINE CREEK

MEADOW CREEK

PALISADES

JOLLY HILL

WIND

HORSE BUTTE

AMERICAN FALLS

MOONSHINE

Soda

Conda

SODA

GRACE

Populus

ONEIDA

Oneida

Malad

Franklin

Lifton

Samaria

CUTLER

Cutler

Smithfield Green Canyon

Cache

SAGE SOLAR

NAUGHTON

Riley Ridge Metering Station

Chimney Butte

Chappel Creek

Labarge

FONTENELLE

SHUTECREEK

Atlantic City

JIM BRIDGER

Anticline (future)

Bitter Creek Sy

Lampo

Corinne

Birch Creek Sy

Lima Sy

Monument

Palisades Sy

Blue Rim

Rock Springs

Mansface

Firehole

Monell Meter Station

Ben Lomond

PIONEER

College

WEBER

Railroad

Muddy Creek Sw Sta

MOUNTAIN WIND

HINSHAW WIND

Croydon

FLAMING GORGE

GORGE

Skunk Ridge

DESERT POWER MAGCORP

Craner Flat

Parrish Onion

GADSBY

KENNECOTT

WEST VALLEY

Stairs

Butlerville

Limber (future)

Rush Valley

Camp Williams

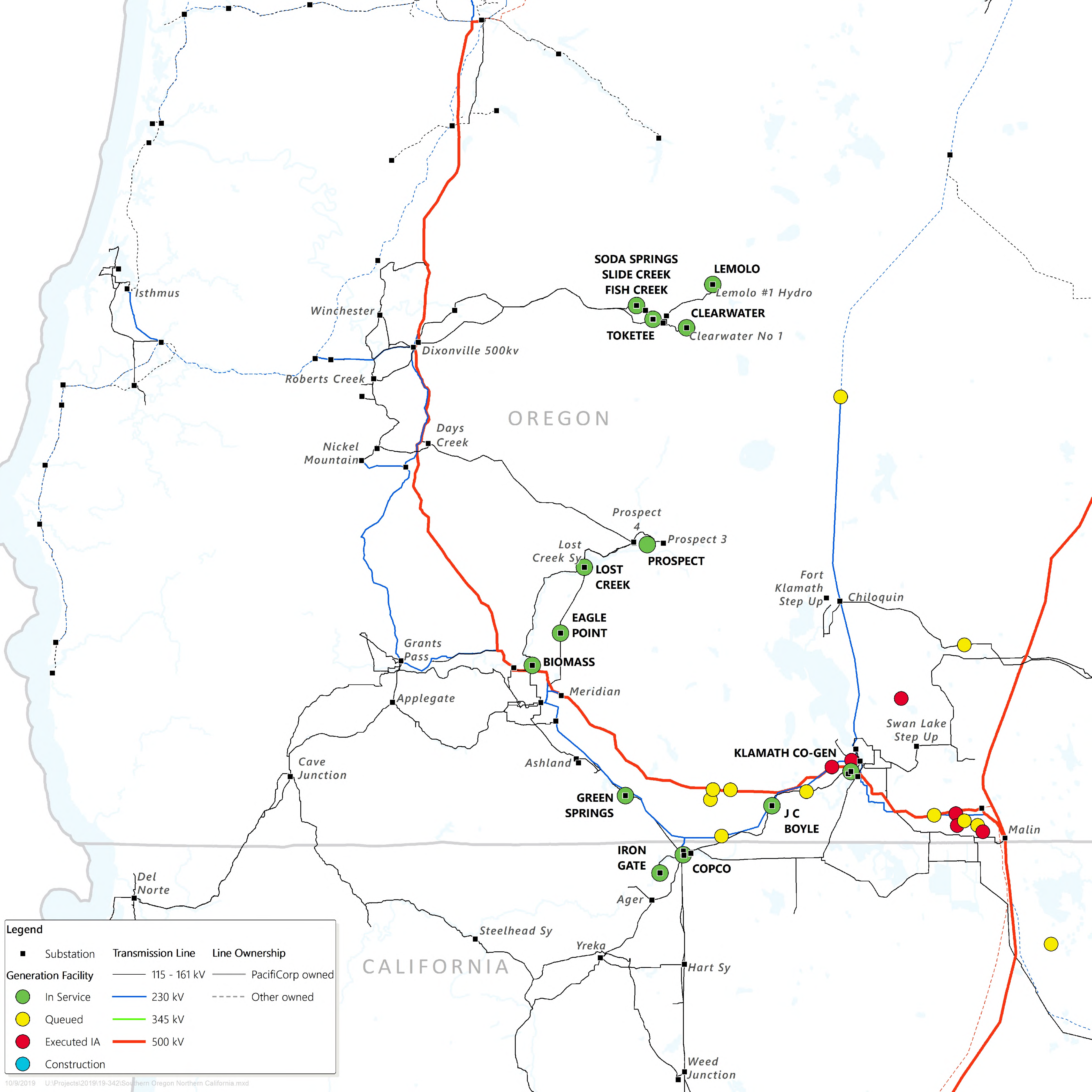
Highland

DYNAMO LAKESIDE 1

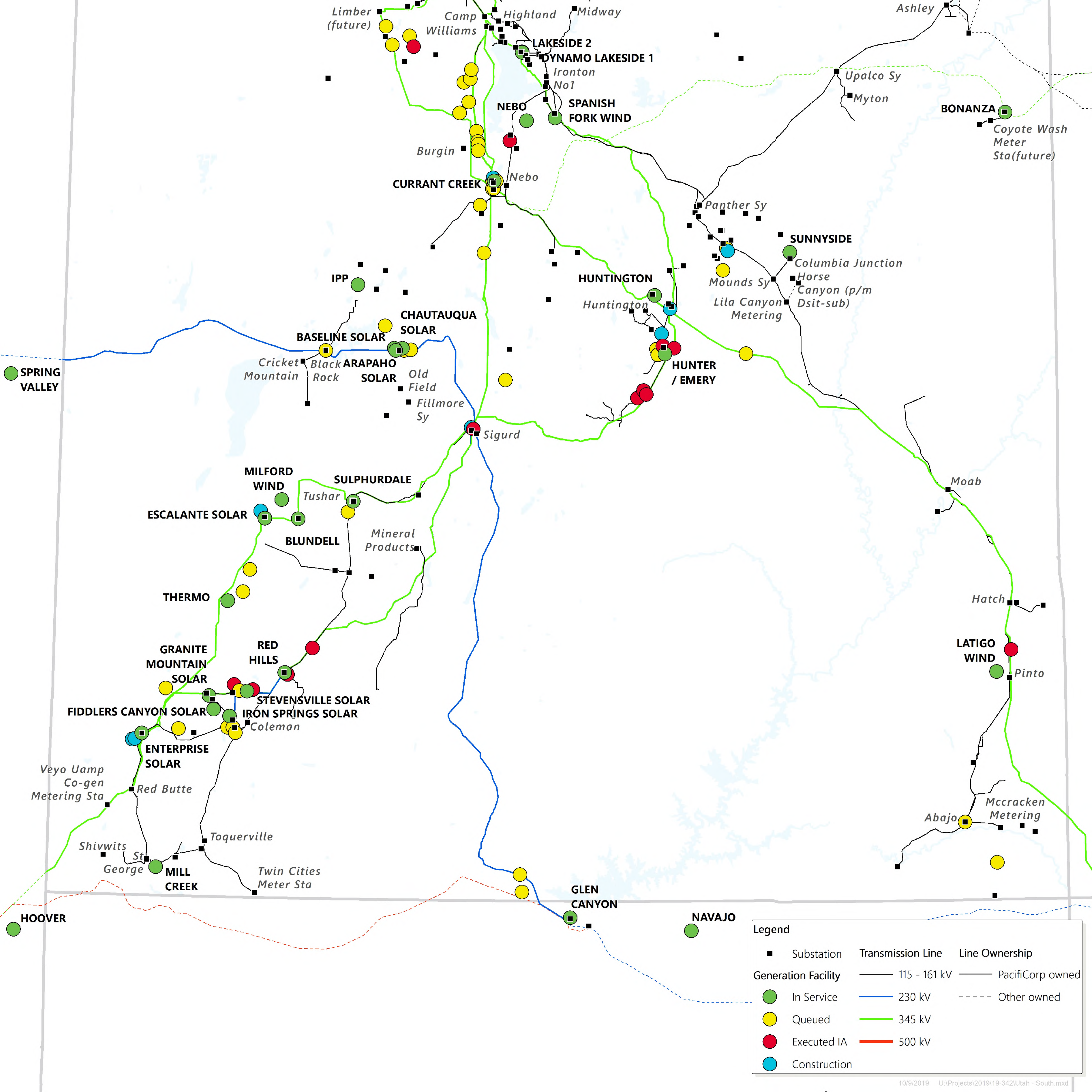
LAKESIDE 2

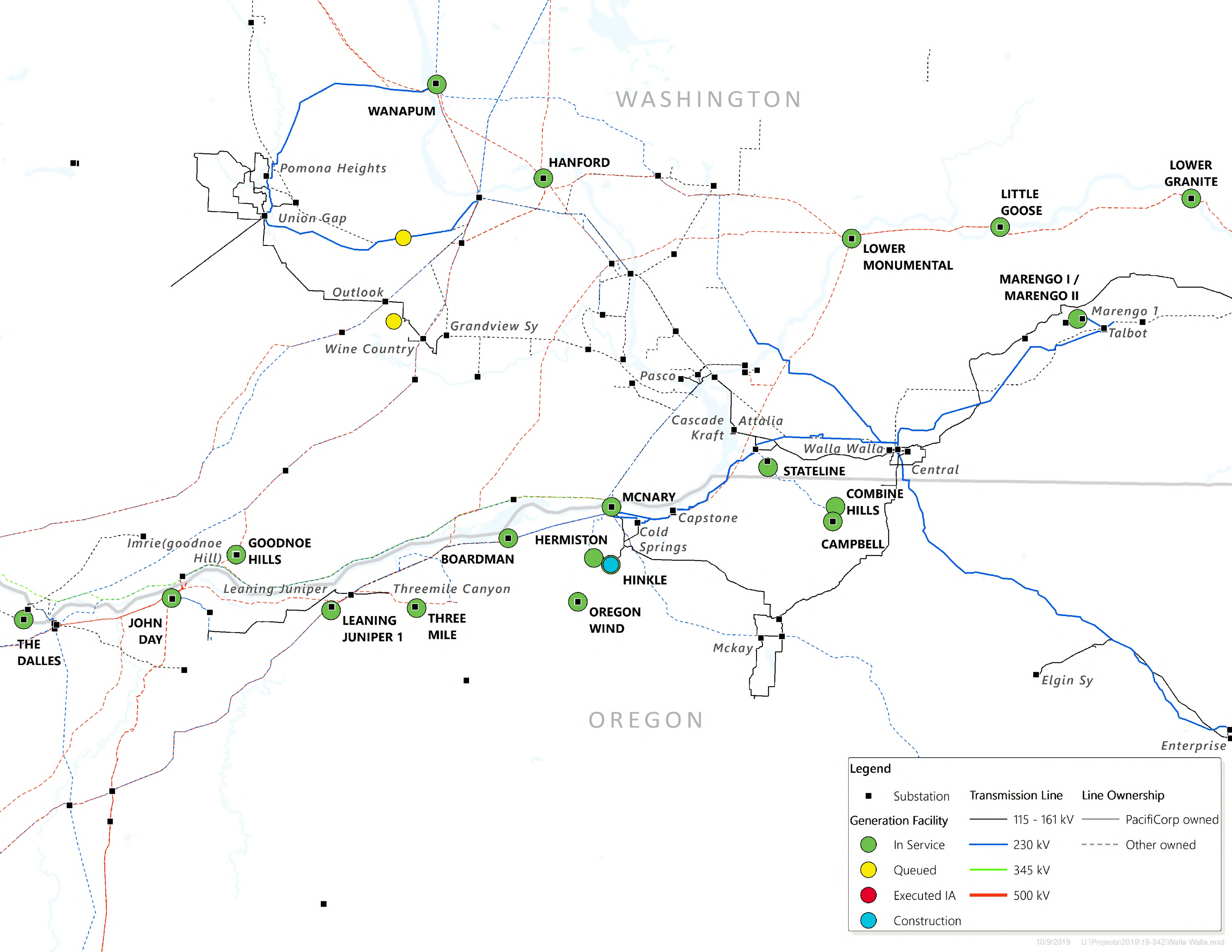
Midway

Ashley

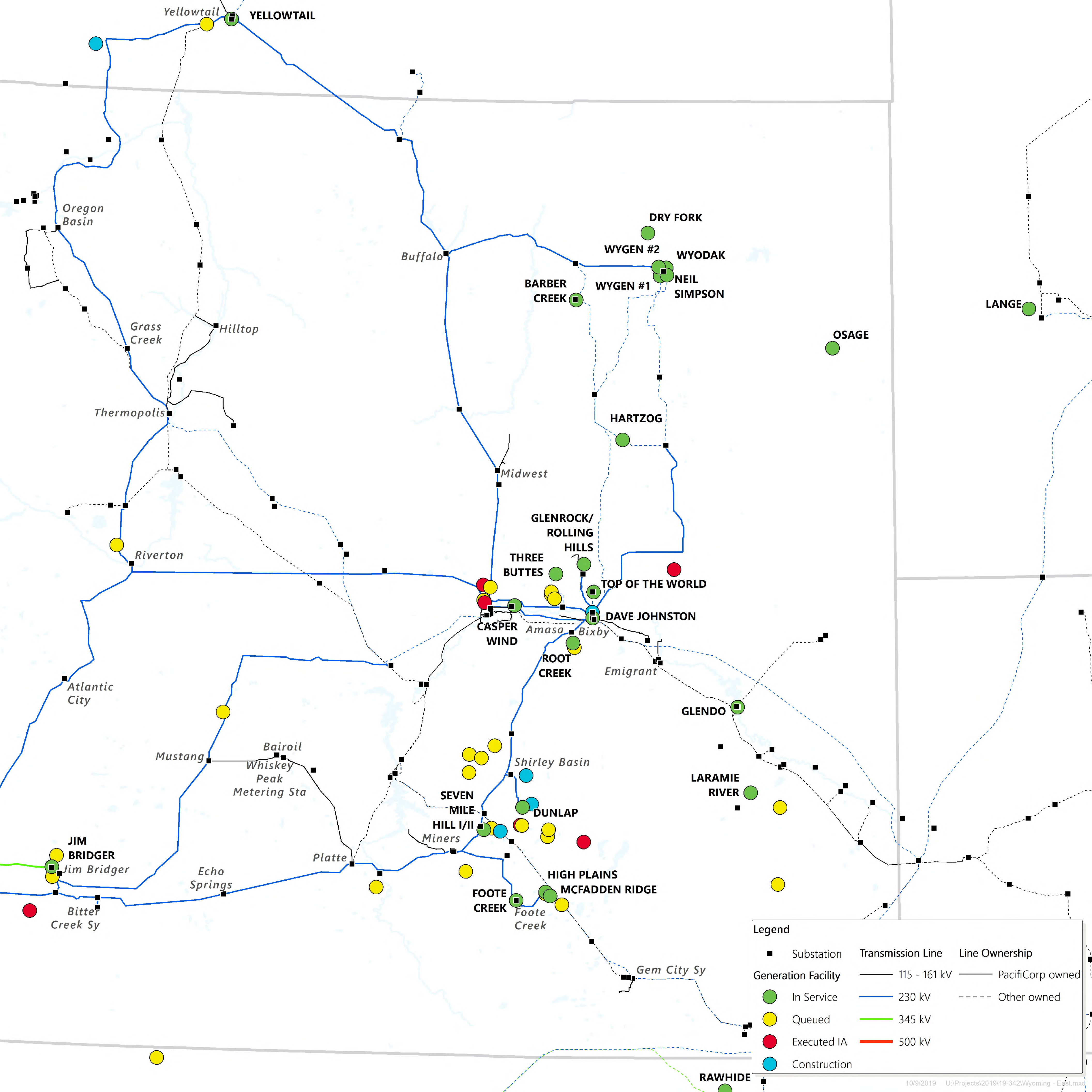


Legend		
■ Substation	Transmission Line	Line Ownership
● In Service	— 115 - 161 kV	— PacifiCorp owned
● Queued	— 230 kV	- - - - Other owned
● Executed IA	— 345 kV	
● Construction	— 500 kV	





Legend		
Substation	Transmission Line	Line Ownership
■	— 115 - 161 kV	— PacifiCorp owned
● In Service	— 230 kV	- - - Other owned
● Queued	— 345 kV	
● Executed IA	— 500 kV	
● Construction		



Yellowtail YELLOWTAIL

Oregon Basin

Grass Creek

Hilltop

Thermopolis

Riverton

Atlantic City

Mustang

Bairoil
Whiskey Peak
Metering Sta

JIM BRIDGER
Jim Bridger

Echo Springs

Bitter Creek Sy

Platte

SEVEN MILE HILL I/II
Miners

FOOTE CREEK
Foote Creek

HIGH PLAINS MCFADDEN RIDGE

Gem City Sy

RAWHIDE

Buffalo

BARBER CREEK

WYGEN #1

DRY FORK

WYODAK

NEIL SIMPSON

LANGE

OSAGE

HARTZOG

Midwest

GLENROCK/
ROLLING HILLS

THREE BUTTES

TOP OF THE WORLD

DAVE JOHNSTON

CASPER WIND

Amasa Bixby

ROOT CREEK

Emigrant

GLENDO

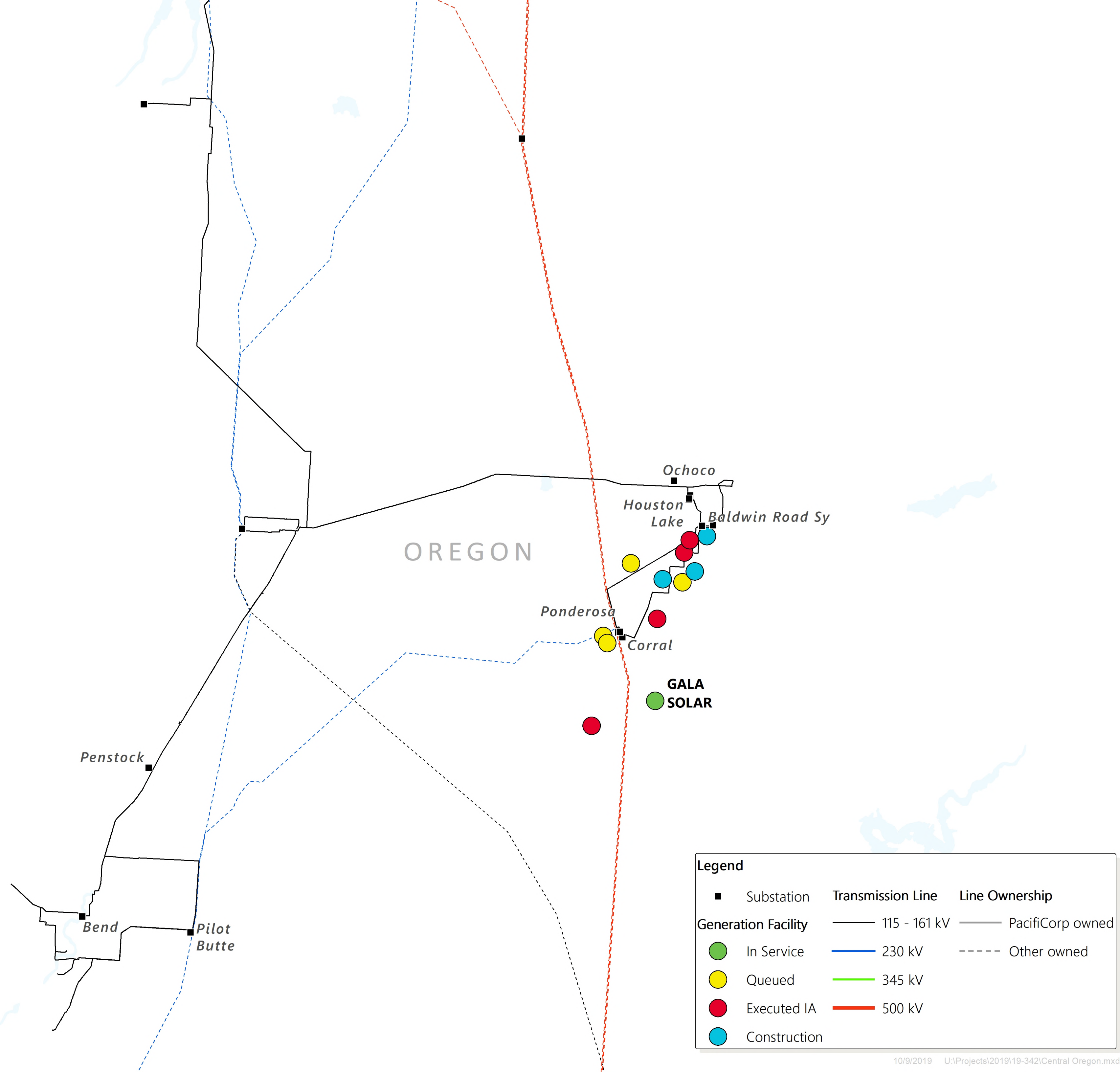
LARAMIE RIVER

SHIRLEY BASIN
Shirley Basin

DUNLAP

Legend

Substation	Transmission Line	Line Ownership
■	— 115 - 161 kV	— PacifiCorp owned
●	— 230 kV	- - - Other owned
●	— 345 kV	
●	— 500 kV	
●		
●		



PACIFICORP

FERC ELECTRIC TARIFF

VOLUME NO. 11

PRO FORMA OPEN ACCESS

TRANSMISSION TARIFF

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IV. LARGE GENERATION INTERCONNECTION SERVICE

36 Definitions

Adverse System Impact shall mean the negative effects due to technical or operational limits on conductors or equipment being exceeded that may compromise the safety and reliability of the electric system.

Affected System shall mean an electric system other than the Transmission Provider's Transmission System that may be affected by the proposed interconnection.

Affected System Operator shall mean the entity that operates an Affected System.

Affiliate shall mean, with respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

Ancillary Services shall mean those services that are necessary to support the transmission of capacity and energy from resources to loads while maintaining reliable operation of the Transmission Provider's Transmission System in accordance with Good Utility Practice.

Applicable Laws and Regulations shall mean all duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

Applicable Reliability Council shall mean the reliability council applicable to the Transmission System to which the Generating Facility is directly interconnected.

Applicable Reliability Standards shall mean the requirements and guidelines of NERC, the Applicable Reliability Council, and the Control Area of the Transmission System to which the Generating Facility is directly interconnected.

Base Case shall mean the base case power flow, short circuit, and stability data bases used for the Interconnection Studies by the Transmission Provider or Interconnection Customer.

Breach shall mean the failure of a Party to perform or observe any material term or condition of the Standard Large Generator Interconnection Agreement.

Breaching Party shall mean a Party that is in Breach of the Standard Large Generator Interconnection Agreement.

Business Day shall mean Monday through Friday, excluding Federal Holidays.

Calendar Day shall mean any day including Saturday, Sunday or a Federal Holiday.

Cluster shall mean a group of Interconnection Requests (one or more) that are studied together for the purpose of conducting the Cluster Study.

Cluster Area shall mean the areas of the Transmission Provider's Transmission System that are included together in a Cluster, as described further in Section 42.4 of this LGIP.

Cluster Request Window shall have the meaning set forth in Section 39.2.1 of this LGIP.

Cluster Re-Study shall mean a re-study of a Cluster Study conducted pursuant to Section 42.4 of this LGIP.

Cluster Re-Study Report shall mean the report issued following completion of a Cluster Re-Study pursuant to Section 42.4 of this LGIP.

Cluster Re-Study Meeting shall mean the meeting held to discuss the results of a Cluster Re-Study pursuant to Section 42.4 of this LGIP.

Cluster Study shall mean an Interconnection Study evaluating one or more Interconnection Requests within a Cluster as described in more detail in Section 42.4 of this LGIP.

Cluster Study Agreement shall mean the form of agreement contained in Appendix 3 to the Standard Large Generator Interconnection Procedures for conducting the Cluster Study.

Cluster Study Report shall mean the report issued following completion of a Cluster Study pursuant to Section 42.4 of this LGIP.

Cluster Study Report Meeting shall mean the meeting held to discuss the results of a Cluster Study pursuant to Section 42.4 of this LGIP.

Clustering shall mean the process whereby a group of Interconnection Requests is studied together, instead of serially, as described in more detail in Section 42.

Commercial Operation shall mean the status of a Generating Facility that has commenced generating electricity for sale, excluding electricity generated during Trial Operation.

Commercial Operation Date of a unit shall mean the date on which the Generating Facility commences Commercial Operation as agreed to by the Parties pursuant to Appendix E to the Standard Large Generator Interconnection Agreement.

Confidential Information shall mean any confidential, proprietary or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy or compilation relating to the present or planned business of a Party, which is designated as confidential by the Party supplying the information, whether conveyed orally, electronically, in writing, through inspection, or otherwise.

Contingent Facilities shall mean those unbuilt Interconnection Facilities and Network Upgrades upon which the Interconnection Request's costs, timing, and study findings are dependent, and if delayed or not built, could cause a need for Re-Studies of the Interconnection Request or a reassessment of the Interconnection Facilities and/or Network Upgrades and/or costs and timing.

Control Area shall mean an electrical system or systems bounded by interconnection metering and telemetry, capable of controlling generation to maintain its interchange schedule with other Control Areas and contributing to frequency regulation of the interconnection. A Control Area must be certified by an Applicable Reliability Council.

Customer Engagement Window shall have the meaning set forth in Section 42.2 of this LGIP.

Default shall mean the failure of a Breaching Party to cure its Breach in accordance with Article 17 of the Standard Large Generator Interconnection Agreement.

Dispute Resolution shall mean the procedure for resolution of a dispute between the Parties in which they will first attempt to resolve the dispute on an informal basis.

Distribution System shall mean the Transmission Provider's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which distribution systems operate differ among areas.

Distribution Upgrades shall mean the additions, modifications, and upgrades to the Transmission Provider's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Generating Facility and render the transmission service necessary to effect Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

Effective Date shall mean the date on which the Standard Large Generator Interconnection Agreement becomes effective upon execution by the Parties subject to acceptance by FERC, or if filed unexecuted, upon the date specified by FERC.

Emergency Condition shall mean a condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (2) that, in the case of a Transmission Provider, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to Transmission Provider's Transmission System, Transmission Provider's Interconnection Facilities or the electric systems of others to which the Transmission Provider's Transmission System is directly connected; or (3) that, in the case of Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Generating Facility or Interconnection Customer's Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions; provided that Interconnection Customer is not obligated by the Standard Large Generator Interconnection Agreement to possess black start capability.

Energy Resource Interconnection Service shall mean an Interconnection Service that allows the Interconnection Customer

to connect its Generating Facility to the Transmission Provider's Transmission System to be eligible to deliver the Generating Facility's electric output using the existing firm or nonfirm capacity of the Transmission Provider's Transmission System on an as available basis. Energy Resource Interconnection Service in and of itself does not convey transmission service.

Engineering & Procurement (E&P) Agreement shall mean an agreement that authorizes the Transmission Provider to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection in order to advance the implementation of the Interconnection Request.

Environmental Law shall mean Applicable Laws or Regulations relating to pollution or protection of the environment or natural resources.

Federal Power Act shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a et seq.

FERC shall mean the Federal Energy Regulatory Commission (Commission) or its successor.

Financial Security shall mean any of the forms of collateral or security listed in Section 2 of the Creditworthiness Procedures included in Attachment L to this Tariff.

Force Majeure shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure event does not include acts of negligence or intentional wrongdoing by the Party claiming Force Majeure.

Generating Facility shall mean Interconnection Customer's device for the production and/or storage for later injection of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

Generating Facility Capacity shall mean the net capacity of the Generating Facility and the aggregate net capacity of the Generating Facility where it includes multiple energy production devices.

Good Utility Practice shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

Governmental Authority shall mean any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include Interconnection Customer, Transmission Provider, or any Affiliate thereof.

Hazardous Substances shall mean any chemicals, materials or substances defined as or included in the definition of "hazardous substances," "hazardous wastes," "hazardous materials," "hazardous constituents," "restricted hazardous materials," "extremely hazardous substances," "toxic substances," "radioactive substances," "contaminants," "pollutants," "toxic pollutants" or words of similar meaning and regulatory effect under any applicable Environmental Law, or any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law.

Informational Interconnection Study shall mean an analysis based on assumptions specified by Interconnection Customer in the Informational Interconnection Study Agreement and conducted pursuant to Section 41 of this LGIP.

Informational Interconnection Study Agreement shall mean the form of agreement contained in Appendix 2A to the Standard Large Generator Interconnection Procedures for conducting the Informational Interconnection Study.

Informational Interconnection Study Request shall mean an Interconnection Customer's request in the form of Appendix 2 to the Standard Large Generator Interconnection Procedures.

Initial Synchronization Date shall mean the date upon which the Generating Facility is initially synchronized and upon which Trial Operation begins.

In-Service Date shall mean the date upon which the Interconnection Customer reasonably expects it will be ready to begin use of the Transmission Provider's Interconnection Facilities to obtain back feed power.

Interconnection Customer shall mean any entity, including the Transmission Provider, Transmission Owner or any of the Affiliates or subsidiaries of either, that proposes to interconnect its Generating Facility with the Transmission Provider's Transmission System. For purposes of the Transmission Provider's Cluster Study process conducted pursuant to Section 42 of this LGIP, and except as modified by Section 51 of Transmission Provider's OATT, "Interconnection Customer" shall also mean any Small Generating Facility that is participating in a Cluster.

Interconnection Customer's Interconnection Facilities shall mean all facilities and equipment, as identified in Appendix A of the Standard Large Generator Interconnection Agreement, that are located between the Generating Facility and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Generating Facility to the Transmission Provider's Transmission System. Interconnection Customer's Interconnection Facilities are sole use facilities.

Interconnection Facilities shall mean the Transmission Provider's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Generating Facility to the Transmission Provider's Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades. Interconnection Facilities may be shared by more than one Generating Facility in a Cluster.

Interconnection Facilities Study shall mean a study conducted by the Transmission Provider or a third party consultant for the Interconnection Customer to determine a list of facilities (including Transmission Provider's Interconnection Facilities and Network Upgrades as identified in the Cluster Study), the cost of those facilities, and the time required to interconnect the Generating Facility with the Transmission Provider's Transmission System. The scope of the study is defined in Section 43 of the Standard Large Generator Interconnection Procedures.

Interconnection Facilities Study Agreement shall mean the form of agreement contained in Appendix 4 of the Standard Large Generator Interconnection Procedures for conducting the Interconnection Facilities Study.

Interconnection Request shall mean an Interconnection Customer's request, in the form of Appendix 1 to the Standard Large Generator Interconnection Procedures, in accordance with the Tariff, to interconnect a new Generating Facility, or to increase the capacity of, or make a Material Modification to the operating characteristics of, an existing Generating Facility that is interconnected with the Transmission Provider's Transmission System. For purposes of the Transmission Provider's Cluster Study process conducted pursuant to Section 42 of this LGIP, and except as modified by Section 51 of Transmission Provider's OATT, "Interconnection Request" shall also mean any interconnection request from a Small Generating Facility that is participating in a Cluster.

Interconnection Service shall mean the service provided by the Transmission Provider associated with interconnecting the Interconnection Customer's Generating Facility to the Transmission Provider's Transmission System and enabling it to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Standard Large Generator Interconnection Agreement and, if applicable, the Transmission Provider's Tariff.

Interconnection Study shall mean any of the following studies: the Informational Interconnection Study, the Cluster Study, the Surplus Interconnection Service System Impact Study, and the Interconnection Facilities Study described in the Standard Large Generator Interconnection Procedures.

IRS shall mean the Internal Revenue Service.

Joint Operating Committee shall be a group made up of representatives from Interconnection Customers and the Transmission Provider to coordinate operating and technical considerations of Interconnection Service.

Large Generating Facility shall mean a Generating Facility having a Generating Facility Capacity of more than 20 MW.

Loss shall mean any and all losses relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's performance, or non-performance of its obligations under the Standard Large Generator Interconnection Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnifying Party.

Material Modification shall mean those modifications that have a material impact on the cost or timing of any Interconnection Request with a later queue priority date.

Metering Equipment shall mean all metering equipment installed or to be installed at the Generating Facility pursuant to the Standard Large Generator Interconnection Agreement at the metering points, including but not limited to instrument transformers, MWh-meters, data acquisition equipment, transducers, remote terminal unit, communications equipment, phone lines, and fiber optics.

NERC shall mean the North American Electric Reliability Corporation or its successor organization.

Network Resource shall mean any designated generating resource owned, purchased, or leased by a Network Customer under the Network Integration Transmission Service Tariff. Network Resources do not include any resource, or any portion thereof, that is committed for sale to third parties or otherwise cannot be called upon to meet the Network Customer's Network Load on a non-interruptible basis.

Network Resource Interconnection Service shall mean an Interconnection Service that allows the Interconnection Customer to integrate its Large Generating Facility with the Transmission Provider's Transmission System (1) in a manner comparable to that in which the Transmission Provider integrates its

generating facilities to serve native load customers; or (2) in an RTO or ISO with market based congestion management, in the same manner as Network Resources. Network Resource Interconnection Service in and of itself does not convey transmission service.

Network Upgrades shall mean the additions, modifications, and upgrades to the Transmission Provider's Transmission System required at or beyond the point at which the Interconnection Facilities connect to the Transmission Provider's Transmission System to accommodate the interconnection of the Large Generating Facility to the Transmission Provider's Transmission System.

Notice of Dispute shall mean a written notice of a dispute or claim that arises out of or in connection with the Standard Large Generator Interconnection Agreement or its performance.

Party or Parties shall mean Transmission Provider, Transmission Owner, Interconnection Customer or any combination of the above.

Permissible Technological Advancement shall mean a technological advancement requested by the Interconnection Customer to the components of the Large Generating Facility described in the Interconnection Customer's Interconnection Request that (a) would result in electrical performance that is equal to or better than the electrical performance expected prior to the change; (b) would not increase the interconnection customer's requested interconnection service, and (c) would not cause any reliability concerns (i.e., material impacts to the transmission system, including impacts to short circuit capability limits, steady-state thermal and voltage limits, or dynamic system stability and response). Technological advancements that do not degrade the electrical characteristics of the generating equipment (e.g., the ratings, impedances, efficiencies, capabilities, and performance of the equipment under steady state and dynamic conditions) qualify as having performance that is equal to or better than the performance expected prior to the change. Proposed technological advancements that generally can be considered Permissible Technological Advancements without extensive or additional studies include, without limitation, advancements to turbines, inverters, plant supervisory equipment or other proposed modifications that may affect a Large Generating Facility's ability to provide ancillary services. Proposed technological advancements that entail changes to the generation technology or fuel type (for example, and without limitation, a change from wind to solar generation

technology)are not Permissible Technological Advancements.

Point of Change of Ownership shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Customer's Interconnection Facilities connect to the Transmission Provider's Interconnection Facilities.

Point of Interconnection shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Facilities connect to the Transmission Provider's Transmission System.

Provisional Interconnection Service shall mean Interconnection Service provided by Transmission Provider associated with interconnecting the Interconnection Customer's Generating Facility to Transmission Provider's Transmission System and enabling that Transmission System to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Provisional Large Generator Interconnection Agreement and, if applicable, the Tariff.

Provisional Large Generator Interconnection Agreement shall mean the interconnection agreement for Provisional Interconnection Service established between Transmission Provider and/or the Transmission Owner and the Interconnection Customer. This agreement shall take the form of the Large Generator Interconnection Agreement, modified for provisional purposes.

Queue Position shall mean the order of a valid Interconnection Request, relative to all other pending valid Interconnection Requests, that is established based upon the date and time that Interconnection Customer satisfies all of the requirements of Sections 38, 39, and 42 to enter the Cluster Study Process.

Reasonable Efforts shall mean, with respect to an action required to be attempted or taken by a Party under the Standard Large Generator Interconnection Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

Readiness Milestone Options shall mean the options set forth in Section 38.4.1(v) of the LGIP.

Resource Plan shall mean any process authorized or required by

Applicable Laws and Regulations for, inter alia, the selection of Generating Facilities.

Resource Solicitation Process shall mean any process authorized or required by Applicable Laws and Regulations for the acquisition of Network Resources.

Scoping Meeting shall mean the meeting between representatives of the Interconnection Customer and Transmission Provider conducted for the purpose of discussing the proposed interconnection request, alternative interconnection options, to exchange information including any transmission data and earlier study evaluations that would be reasonably expected to affect such interconnection options, to analyze such information, and to determine the potential feasible Points of Interconnection.

Site Control shall mean the exclusive land right to develop, construct, operate, and maintain the Generating Facility over the term of expected operation of the Generating Facility. Site Control may be demonstrated by documentation establishing: (1) ownership of, a leasehold interest in, or a right to develop a site of sufficient size to construct and operate the Generating Facility; (2) an option to purchase or acquire a leasehold interest in a site of sufficient size to construct and operate the Generating Facility; or (3) any other documentation that clearly demonstrates the right of the Interconnection Customer to exclusively occupy a site of sufficient size to construct and operate the Generating Facility. Site Control for any co-located project is demonstrated by a contract or other agreement demonstrating shared land use for all co-located projects that meet the aforementioned provisions of this Site Control definition.

Small Generating Facility shall mean a Generating Facility that has a Generating Facility Capacity of no more than 20 MW.

Stand Alone Network Upgrades shall mean Network Upgrades that are not part of an Affected System that an Interconnection Customer may construct without affecting day-to-day operations of the Transmission System during their construction. Both the Transmission Provider and the Interconnection Customer must agree as to what constitutes Stand Alone Network Upgrades and identify them in Appendix A to the Standard Large Generator Interconnection Agreement. If the Transmission Provider and Interconnection Customer disagree about whether a particular Network Upgrade is a Stand Alone Network Upgrade, the Transmission Provider must provide the Interconnection Customer

a written technical explanation outlining why the Transmission Provider does not consider the Network Upgrade to be a Stand Alone Network Upgrade within 15 days of its determination.

Standard Large Generator Interconnection Agreement (LGIA) shall mean the form of interconnection agreement applicable to an Interconnection Request pertaining to a Large Generating Facility that is included in the Transmission Provider's Tariff.

Standard Large Generator Interconnection Procedures (LGIP) shall mean the interconnection procedures applicable to an Interconnection Request pertaining to a Large Generating Facility that are included in the Transmission Provider's Tariff.

Surplus Interconnection Service shall mean any unneeded portion of Interconnection Service established in a Large Generator Interconnection Agreement, such that if Surplus Interconnection Service is utilized, the total amount of Interconnection Service at the Point of Interconnection would remain the same.

Surplus Interconnection Service System Impact Study shall mean an engineering study that evaluates the impact of a proposed request for Surplus Interconnection Service on the safety and reliability of Transmission Provider's Transmission System and, if applicable, an Affected System. The study shall identify and detail the system impacts that would result if the Generating Facility were interconnected without project modifications or system modifications, focusing on the Adverse System Impacts, or to study potential impacts, including but not limited to those identified in the Scoping Meeting as described in the Standard Large Generator Interconnection Procedures.

Surplus Interconnection Service System Impact Study Agreement shall mean the form of agreement contained in Appendix 5 of the Standard Large Generator Interconnection Procedures for conducting a system impact study for purposes of evaluating a request for Surplus Interconnection Service pursuant to Section 38.3 of this LGIP.

System Protection Facilities shall mean the equipment, including necessary protection signal communications equipment, required to protect (1) the Transmission Provider's Transmission System from faults or other electrical disturbances occurring at the Generating Facility and (2) the Generating Facility from faults or other electrical system disturbances occurring on the Transmission Provider's Transmission System or on other delivery

systems or other generating systems to which the Transmission Provider's Transmission System is directly connected.

Tariff shall mean the Transmission Provider's Tariff through which open access transmission service and Interconnection Service are offered, as filed with FERC, and as amended or supplemented from time to time, or any successor tariff.

Technological Advancement Request shall mean an Interconnection Customer's request, in the form provided on the Transmission Provider's OASIS to be completed and submitted before executing a Facility Study Agreement, to incorporate a proposed technological advancement pursuant to the Transmission Provider's Technological Change Procedures.

Technological Advancement Study shall mean the study performed by the Transmission Provider, as necessary, to determine whether a proposed Technological Advancement constitutes a Permissible Technological Advancement.

Technological Advancement Study Agreement shall mean the form of agreement contained in Appendix 8 of the Standard Large Generator Interconnection Procedures for conducting the study to determine whether a proposed technological change is a Permissible Technological Advancement.

Transmission Owner shall mean an entity that owns, leases or otherwise possesses an interest in the portion of the Transmission System at the Point of Interconnection and may be a Party to the Standard Large Generator Interconnection Agreement to the extent necessary.

Transmission Provider shall mean the public utility (or its designated agent) that owns, controls, or operates transmission or distribution facilities used for the transmission of electricity in interstate commerce and provides transmission service under the Tariff. The term Transmission Provider should be read to include the Transmission Owner when the Transmission Owner is separate from the Transmission Provider.

Transmission Provider's Interconnection Facilities shall mean all facilities and equipment owned, controlled, or operated by the Transmission Provider from the Point of Change of Ownership to the Point of Interconnection as identified in Appendix A to the Standard Large Generator Interconnection Agreement, including any modifications, additions or upgrades to such facilities and equipment. Transmission Provider's

Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades. Transmission Provider's Interconnection Facilities may be shared by more than one Generating Facility in a given Cluster Study.

Transmission System shall mean the facilities owned, controlled or operated by the Transmission Provider or Transmission Owner that are used to provide transmission service under the Tariff.

Trial Operation shall mean the period during which Interconnection Customer is engaged in on-site test operations and commissioning of the Generating Facility prior to Commercial Operation.

Withdrawal Penalty shall have the meaning set forth in Section 38.7.1 of this LGIP.

IV. LARGE GENERATION INTERCONNECTION SERVICE

37 Scope and Application

37.1 Application of Standard Large Generator

Interconnection Procedures: Sections 37 through 48 apply to processing an Interconnection Request pertaining to a Large Generating Facility. As provided in Section 49.6 to the Tariff, Small Generating Facilities that are not eligible for the fast track or inverter process will be processed in a single study process with Large Generating Facilities. Additionally, Small Generating Facilities requesting Network Resource Interconnection Service shall be processed under this LGIP. As provided for in Section 51, interconnection requests for Small Generating Facilities may be studied together in Clusters with Interconnection Requests for Large Generating Facilities.

37.2 Comparability: Transmission Provider shall receive, process and analyze all Interconnection Requests in a timely manner as set forth in this LGIP. Transmission Provider will use the same Reasonable Efforts in processing and analyzing Interconnection Requests from all Interconnection Customers, whether the Generating Facilities are owned by Transmission Provider, its subsidiaries or Affiliates or others.

37.3 Base Case Data: Transmission Provider shall maintain base power flow, short circuit and stability databases, including all underlying assumptions, and contingency list on either its OASIS site or a password-protected website, subject to confidentiality provisions in LGIP Section 48.1. In addition, Transmission Provider shall maintain network models and underlying assumptions on either its OASIS site or a password-protected website. Such network models and underlying assumptions should reasonably represent those used during the most recent interconnection study and be representative of current system conditions. If Transmission Provider posts this information on a password-protected website, a link to the information must be provided on Transmission Provider's OASIS site. Transmission Provider is permitted to require that Interconnection Customers,

OASIS site users and password-protected website users sign a confidentiality agreement before the release of commercially sensitive information or Critical Energy Infrastructure Information in the Base Case data. Such databases and lists, hereinafter referred to as Base Cases, shall include all (i) generation projects and (ii) transmission projects, including merchant transmission projects that are proposed for the Transmission System for which a transmission expansion plan has been submitted and approved by the applicable authority.

37.4 No Applicability to Transmission Service: Nothing in this LGIP shall constitute a request for transmission service or confer upon an Interconnection Customer any right to receive transmission service.

37.5 EIM Requirements:

The Interconnection Customer shall have a continuing duty to comply with Attachment T of this Tariff, as applicable.

IV. LARGE GENERATION INTERCONNECTION SERVICE

38 Interconnection Requests and Informational Interconnection Study Requests

38.1 Interconnection Requests: An Interconnection Customer shall submit to Transmission Provider, during a Cluster Request Window, an Interconnection Request in the form of Appendix 1 to this LGIP and a refundable deposit of:

- a. \$75,000 for requests of less than 50 MW;
- b. \$150,000 for requests of 50 MW and greater, but less than 200 MW; or
- c. \$250,000 for requests of 200 MW and greater.

Pursuant to Section 39.2.2, Transmission Provider shall apply the deposit toward the cost of a Cluster Study into which Interconnection Customer is admitted including such Interconnection Customer's individual Facilities Study, and shall be used to process Interconnection Customer's request. For Small Generating Facilities, the appropriate application fee or deposit shall be determined pursuant to Section 49.3 of Transmission Provider's OATT. Interconnection Customer shall submit a separate Interconnection Request for each site and may submit multiple Interconnection Requests for a single site. Interconnection Customer must submit a deposit with each Interconnection Request even when more than one request is submitted for a single site. An Interconnection Request to evaluate one site at two different voltage levels shall be treated as two Interconnection Requests.

At Interconnection Customer's option, Transmission Provider and Interconnection Customer will identify alternative Point(s) of Interconnection and configurations at the Scoping Meeting to evaluate in this process and attempt to eliminate alternatives in a reasonable fashion given resources and information available. Interconnection Customer will select the definitive Point of Interconnection to be studied no

later than the execution of the Cluster Study Agreement. For purposes of clustering Interconnection Service requests, Transmission Provider may make reasonable changes to the requested Point of Interconnection to facilitate efficient interconnection of Interconnection Customers at common points of interconnection. Transmission Provider shall notify Interconnection Customers in writing of any intended changes to the requested Point of Interconnection and the Point of Interconnection shall only change upon mutual agreement.

Transmission Provider shall have a process in place to consider requests for Interconnection Service below the Generating Facility Capacity. These requests for Interconnection Service shall be studied at the level of Interconnection Service requested for purposes of Interconnection Facilities, and Network Upgrades, but may be subject to other studies at the full Generating Facility Capacity to ensure safety and reliability of the system, with the study costs borne by the Interconnection Customer. If after the additional studies are complete, Transmission Provider determines that additional Network Upgrades are necessary, then Transmission Provider must: (1) specify which additional Network Upgrade costs are based on which studies; and (2) provide a detailed explanation of why the additional Network Upgrades are necessary. Any Interconnection Facility and/or Network Upgrade costs required for safety and reliability also will be borne by the Interconnection Customer. Interconnection Customers may be subject to additional control technologies as well as testing and validation of those technologies consistent with Article 6 of the LGIA. The necessary control technologies and protection systems shall be established in Appendix C of the executed, or requested to be filed unexecuted, LGIA.

38.2 Identification of Types of Interconnection Services:

At the time the Interconnection Request is submitted, Interconnection Customer must request either Energy Resource Interconnection Service or Network Resource Interconnection Service, as described below. An Interconnection Customer may designate only one type of Interconnection Service for each separate Interconnection Service request. The type of

Interconnection Service must be finalized upon submission of the appropriate executed Cluster Study Agreement and may not be changed after the start of the Cluster Study process.

38.2.1 Energy Resource Interconnection Service.

38.2.1.1 The Product. Energy Resource Interconnection Service allows Interconnection Customer to connect the Large Generating Facility to the Transmission System and be eligible to deliver the Large Generating Facility's output using the existing firm or non-firm capacity of the Transmission System on an "as available" basis. Energy Resource Interconnection Service does not in and of itself convey any right to deliver electricity to any specific customer or Point of Delivery.

38.2.1.2 The Study. The study consists of short circuit/fault duty, steady state (thermal and voltage) and stability analyses. The short circuit/fault duty analysis would identify direct Interconnection Facilities required and the Network Upgrades necessary to address short circuit issues associated with the Interconnection Facilities. The stability and steady state studies would identify necessary upgrades to allow full output of the proposed Large Generating Facility and would also identify the maximum allowed output, at the time the study is performed, of the interconnecting Large Generating Facility without requiring additional Network Upgrades.

38.2.2 Network Resource Interconnection Service.

38.2.2.1 The Product. Transmission Provider must conduct the necessary studies

and construct the Network Upgrades needed to integrate the Large Generating Facility (1) in a manner comparable to that in which Transmission Provider integrates its generating facilities to serve native load customers; or (2) in an ISO or RTO with market based congestion management, in the same manner as Network Resources. Network Resource Interconnection Service Allows Interconnection Customer's Large Generating Facility to be designated as a Network Resource, up to the Large Generating Facility's full output, on the same basis as existing Network Resources interconnected to Transmission Provider's Transmission System, and to be studied as a Network Resource on the assumption that such a designation will occur.

38.2.2.2 The Study. The Interconnection Study for Network Resource Interconnection Service shall assure that Interconnection Customer's Large Generating Facility meets the requirements for Network Resource Interconnection Service and as a general matter, that such Large Generating Facility's interconnection is also studied with Transmission Provider's Transmission System at peak load, under a variety of severely stressed conditions, to determine whether, with the Large Generating Facility at full output, the aggregate of generation in the local area can be delivered to the aggregate of load on Transmission Provider's Transmission System, consistent with Transmission Provider's reliability criteria and procedures. This approach assumes that some portion of existing Network Resources are displaced by the output of Interconnection Customer's Large

Generating Facility. Network Resource Interconnection Service in and of itself does not convey any right to deliver electricity to any specific customer or Point of Delivery. The Transmission Provider may also study the Transmission System under non-peak load conditions. However, upon request by the Interconnection Customer, the Transmission Provider must explain in writing to the Interconnection Customer why the study of non-peak load conditions is required for reliability purposes.

38.3 Utilization of Surplus Interconnection Service.

Transmission Provider must provide a process that allows an Interconnection Customer to utilize or transfer Surplus Interconnection Service at an existing Point of Interconnection. The original Interconnection Customer or one of its affiliates shall have priority to utilize Surplus Interconnection Service. If the existing Interconnection Customer or one of its affiliates does not exercise its priority, then that service may be made available to other potential Interconnection Customers.

38.3.1 Surplus Interconnection Service Requests.

Surplus Interconnection Service requests may be made by the existing Interconnection Customer whose Generating Facility is already interconnected or one of its affiliates. Surplus Interconnection Service requests also may be made by another Interconnection Customer. Transmission Provider shall provide a process for evaluating Interconnection Requests for Surplus Interconnection Service. Studies for Surplus Interconnection Service shall consist of reactive power, short circuit/fault duty, stability analyses, and any other appropriate studies. Steady-state (thermal/voltage) analyses may be performed as necessary to ensure that all required reliability conditions are studied. If the Surplus Interconnection Service was not studied under off-peak conditions, off-peak steady

state analyses shall be performed to the required level necessary to demonstrate reliable operation of the Surplus Interconnection Service. If the original system impact study or Cluster Study is not available for the Surplus Interconnection Service, both off-peak and peak analysis may need to be performed for the existing Generating Facility associated with the request for Surplus Interconnection Service. The reactive power, short circuit/fault duty, stability, and steady-state analyses for Surplus Interconnection Service will identify any additional Interconnection Facilities and/or Network Upgrades necessary.

Interconnection Customers shall request Surplus Interconnection Service by submitting to the Transmission Provider a completed request in the form of, and in accordance with, Appendix 1 of this LGIP. Surplus Interconnection Service requests shall be processed outside of the interconnection queue. In order to deem a request for Surplus Interconnection Service valid and complete, a deposit of \$10,000 must also be received by the Transmission Provider. After a request for Surplus Interconnection Service has been deemed valid and complete by the Transmission Provider, the Transmission Provider will notify the Interconnection Customer(s) and schedule a scoping meeting within five (5) Business Days.

38.3.2 Surplus Interconnection Service System Impact Study.

38.3.2.1 Within five (5) Business Days following the scoping meeting, Interconnection Customer shall notify the Transmission Provider in writing that the Interconnection Customer wants to proceed with the process for requesting Surplus Interconnection Service. Within five (5) days of the notification that Interconnection Customer wants to proceed with the process for requesting Surplus Interconnection Service, Transmission Provider shall tender to Interconnection Customer the

Surplus Interconnection Service System Impact Study Agreement in the form of Appendix 5 of this LGIP, which includes a good faith estimate of the estimated timeframe for completing the Surplus Interconnection Service System Impact Study. The Surplus Interconnection Service System Impact Study Agreement shall specify that Interconnection Customer is responsible for the actual cost of the Surplus Interconnection Service System Impact Study.

38.3.2.2 Interconnection Customer shall execute the Surplus Interconnection Service System Impact Study Agreement and deliver the executed Surplus Interconnection Service System Impact Study Agreement to Transmission Provider no later than thirty (30) Calendar Days after its receipt.

38.3.2.3 As part of its Surplus Interconnection Service System Impact Study process, the Transmission Provider will evaluate the original interconnection system impact study, if any, or applicable Cluster Studies, to determine their suitability for use in the evaluation of the request for Surplus Interconnection Service. Inclusive of any Surplus Interconnection Service System Impact Study(ies) performed to evaluate the existing Interconnection Service and deemed suitable for use in the evaluation of the request for Surplus Interconnection Service, studies for Surplus Interconnection Service shall consist of reactive power, short circuit/fault duty, stability analyses, and any other appropriate studies. Steady-state (thermal/voltage) analyses may be performed as necessary to ensure that all required reliability conditions are studied. If the existing Interconnection Service was not studied under off-peak conditions or such study was not deemed suitable, off-peak steady state analyses shall be performed to the required level necessary to demonstrate reliable operation of the Surplus Interconnection Service. If an existing interconnection system impact study or Cluster Study is not available or deemed suitable for

the Surplus Interconnection Service, both off-peak and peak analysis may need to be performed for the existing Generating Facility associated with the request for Surplus Interconnection Service. The studies performed to evaluate a request for Surplus Interconnection Service will identify if any additional Interconnection Facilities and/or Network Upgrades are necessary. If any additional Network Upgrades are necessary, the Surplus Interconnection Request will be denied. Necessary control technologies will also be identified in the studies performed.

38.3.2.4 Transmission Provider shall use Reasonable Efforts to complete the Surplus Interconnection Service System Impact Study within ninety (90) Calendar Days after the receipt of the executed Surplus Interconnection Service System Impact Study Agreement and any technical data required to complete the study. At the request of Interconnection Customer or at any time Transmission Provider determines that it will not meet the required time frame for completing the Surplus Interconnection Service System Impact Study, Transmission Provider shall notify Interconnection Customer as to the schedule status of the Surplus Interconnection Service System Impact Study. If Transmission Provider is unable to complete the Surplus Interconnection Service System Impact Study within the time period, it shall notify Interconnection Customer and provide an estimated completion date with an explanation of the reasons why additional time is required.

38.3.2.5 Within ten (10) Business Days of providing a Surplus Interconnection Service System Impact Study report to Interconnection Customer, Transmission Provider shall establish a date agreeable to Interconnection Customer to meet to discuss the results of the Surplus Interconnection Service System Impact Study. Such meeting shall be no later than thirty (30) Calendar Days from issuance of the Surplus Interconnection Service System Impact Study

report, unless otherwise mutually agreed upon by the Parties.

38.3.3 Surplus Interconnection Service Agreement.

38.3.3.1 Within thirty (30) Calendar Days after delivery of the Surplus Interconnection Service System Impact Study report, Transmission Provider shall tender (1) a draft Surplus Interconnection Service Agreement to the original Interconnection Customer and the Surplus Interconnection Service Customer for their execution, and (2) a draft Amended and Restated Large Generator Interconnection Agreement to the original Interconnection Customer that is revised as necessary to reflect the new Surplus Interconnection Service. Transmission Provider is not required to execute an interconnection agreement for Surplus Interconnection Service if the agreement does not meet the definition set forth in the Tariff or if either the original or surplus Interconnection Customer does not agree to the terms of such service, including any requirements that may be identified by the Transmission Provider in the studies for Surplus Interconnection Service.

38.3.3.2 Transmission Provider and Interconnection Customers shall negotiate concerning any disputed provisions of the appendices to the draft Surplus Interconnection Service Agreement for not more than sixty (60) Calendar Days after tender of the draft Surplus Interconnection Service Agreement. If any Interconnection Customer determines that negotiations are at an impasse, it may request termination of the negotiations at any time after tender of the draft Surplus Interconnection Service Agreement and request submission of the unexecuted Surplus Interconnection Service Agreement to FERC or initiate Dispute Resolution procedures pursuant to Section 13.5 of the LGIP. The Surplus Interconnection Service request shall be deemed withdrawn if, within sixty (60) Calendar Days of tender of the draft Surplus Interconnection

Service Agreement and unless otherwise agreed by the Parties: (1) the original Interconnection Customer fails to also execute the draft amended and restated LGIA following its execution of the Surplus Interconnection Service Agreement, or (2) either the original Interconnection Customer or the surplus Interconnection Customer has not (a) executed the Surplus Interconnection Service Agreement, (b) requested filing of an unexecuted Surplus Interconnection Service Agreement, or (c) initiated Dispute Resolution procedures pursuant to Section 13.5 of the LGIP.

38.3.3.3 As soon as practicable, but not later than fifteen (15) Business Days after receiving the two executed originals of the tendered Surplus Interconnection Service Agreement or the request to file an unexecuted Surplus Interconnection Service Agreement, Transmission Provider shall file the executed or unexecuted Surplus Interconnection Service Agreement with FERC. To the extent the Surplus Interconnection Service Agreement is unexecuted, the filing will contain an explanation of any matters as to which Interconnection Customer(s) and Transmission Provider disagree and support for the costs that Transmission Provider proposes to charge to Interconnection Customer(s) under the Surplus Interconnection Service Agreement. An unexecuted Surplus Interconnection Service Agreement should contain terms and conditions deemed appropriate by Transmission Provider for the Interconnection Request. If the Parties agree to proceed with design, procurement, and construction of facilities under the agreed-upon terms of the unexecuted Surplus Interconnection Service Agreement, they may proceed pending FERC action.

38.4 Valid Interconnection Request:

38.4.1 Initiating an Interconnection Request.

An Interconnection Customer wishing to join a Cluster shall submit its Interconnection

Request to Transmission Provider within, and no later than the close of the Cluster Request Window. To initiate an Interconnection Request, Interconnection Customer must submit all of the following:

- (i) applicable deposit amount, pursuant to Section 38.1,
- (ii) a completed application in the form of Appendix 1 (including applicable technical information),
- (iii) Site Control demonstration pursuant to Section 38.4.1(iii)(a) or (b) below:
 - a. Demonstration of actual Site Control. For demonstration of Site Control of Large Generating Facilities: Specifications for acceptable site size for the purposes of demonstrating Site Control are posted on Transmission Provider's OASIS website. Interconnection Customer may propose alternative specifications for site size to those posted on OASIS for Transmission Provider approval. In the event Transmission Provider and Interconnection Customer cannot reach agreement related to adequacy of site size, Transmission Provider will accept a Professional Engineer (licensed in the state of the Point of Interconnection) stamped site plan drawing that depicts the proposed generation arrangement and specifies the maximum facility output for that arrangement. Demonstration of Site Control for Small Generating Facilities shall be pursuant to Section 49.5.
 - b. Posting of an additional deposit of \$10,000 in lieu-of Site Control. Deposits paid pursuant to this Section 38.4.1(iii) shall be refunded to the Interconnection Customer upon Commercial Operation or upon withdrawal pursuant to Section 38.7, subject to applicable Withdrawal Penalties.

- (iv) Generating Facility size (MW) (and requested Interconnection Service amount if the requested Interconnection Service is less than the Generating Facility Capacity);
- (v) One of the following Readiness Milestone Options totaling the entire capacity of the Generating Facility (or requested Interconnection Service amount if the requested Interconnection Service is less than the Generating Facility Capacity).
 - (a) Executed term sheet (or comparable evidence) related to a contract for sale of (i) the constructed Generating Facility to a load-serving entity or to a commercial, industrial, or other large end-use customer, (ii) the Generating Facility's energy where the term of sale is not less than five (5) years, or (iii) the Generating Facility's ancillary services if the Generating Facility is an electric storage resource where the term of sale is not less than five (5) years;
 - (b) Executed contract binding upon the parties for sale of (i) the constructed Generating Facility to a load-serving entity or to a commercial, industrial, or other large end-use customer, (ii) the Generating Facility's energy where the term of sale is not less than five (5) years, or (iii) the Generating Facility's ancillary services if the Generating Facility is an electric storage resource where the term of sale is not less than five (5) years;
 - (c) Reasonable evidence that the Generating Facility has been selected in a Resource Plan or Resource Solicitation Process by or for a load-serving entity, is being developed by a load-serving entity, or is being

developed for purposes of a sale to a commercial, industrial, or other large end-use customer. For a Generating Facility being developed by a load-serving entity: a site-specific purchase order for generating equipment or statement signed by the Interconnection Customer attesting that the facility will be supplied with generating equipment (e.g. turbines) with a manufacturer's blanket purchase agreement; or

(d) A refundable deposit of \$3,000 per MW of generating capacity proposed in the Interconnection Request.

(vi) A Point of Interconnection.

(vii) Whether the Interconnection Request shall be studied as a Network Resource Interconnection Service or an Energy Resource Interconnection Service, consistent with Section 38.2.

Interconnection Customer shall promptly inform Transmission Provider of any material change to Interconnection Customer's demonstration of Site Control under Section 38.4.1(iii) or its satisfaction of a Readiness Milestone Option as selected under Section 38.4.1(v) or Section 43.1, as applicable. Upon Transmission Provider determining separately that Interconnection Customer no longer satisfies Site Control or a Readiness Milestone Option, Transmission Provider shall give Interconnection Customer ten (10) Business Days to demonstrate satisfaction with the applicable requirement to Transmission Provider's satisfaction. Absent such demonstration, Transmission Provider will deem the subject Interconnection Request withdrawn.

The expected In-Service Date of the new Large Generating Facility or increase in capacity of the existing Generating Facility shall be no more than the process window for the regional expansion planning period (or in the absence of a

regional planning process, the process window for Transmission Provider's expansion planning period) not to exceed seven (7) years from the date the Interconnection Request is received by Transmission Provider, unless Interconnection Customer demonstrates that engineering, permitting and construction of the new Large Generating Facility or increase in capacity of the existing Generating Facility will take longer than the regional expansion planning period. The In-Service Date may succeed the date the Interconnection Request is received by Transmission Provider by a period up to ten (10) years, or longer where Interconnection Customer and Transmission Provider agree, such agreement not to be unreasonably withheld.

38.4.2 Acknowledgment of Interconnection Request.

Transmission Provider shall acknowledge receipt of the Interconnection Request within five (5) Business Days of receipt of the request and attach a copy of the received Interconnection Request to the acknowledgement.

38.4.3 Deficiencies in Interconnection Request.

An Interconnection Request will not be considered to be a valid request until all items in Section 38.4.1 have been received by Transmission Provider. If an Interconnection Request fails to meet the requirements set forth in Section 38.4.1, Transmission Provider shall notify Interconnection Customer within five (5) Business Days of receipt of the initial Interconnection Request of the reasons for such failure and that the Interconnection Request does not constitute a valid request. Interconnection Customer shall provide Transmission Provider the additional requested information needed to constitute a valid request within ten (10) Business Days after receipt of such notice but no later than the close of the Cluster Request Window. At any time, if Transmission Provider identifies issues with technical data provided by Interconnection Customer, Interconnection

Customer and Transmission Provider shall work expeditiously and in good faith to remedy any data issues. Failure by Interconnection Customer to comply with this Section 38.4.3 shall be treated in accordance with Section 38.7.

Transmission Provider shall determine if the information contained in the Interconnection Request is sufficient to start the Cluster Study by the close of the Customer Engagement Window.

38.4.4 Scoping Meeting.

During the Customer Engagement Window, Transmission Provider shall hold a Scoping Meeting with all Interconnection Customers whose valid Interconnection Requests were received in that Cluster Request Window. If requested by an Interconnection Customer, Transmission Provider shall also hold individual customer-specific Scoping Meetings, which must be requested no later than fifteen (15) Business Days after the close of the Cluster Request Window.

The purpose of the Scoping Meeting shall be to discuss alternative interconnection options, to exchange information including any transmission data that would reasonably be expected to impact such interconnection options, to discuss the Cluster Area materials posted to OASIS pursuant to Section 42.4, and to analyze such information. Transmission Provider and Interconnection Customer will bring to the meeting such technical data, including, but not limited to: (i) general facility loadings, (ii) general instability issues, (iii) general short circuit issues, (iv) general voltage issues, and (v) general reliability issues as may be reasonably required to accomplish the purpose of the meeting. Transmission Provider and Interconnection Customer will also bring to the meeting personnel and other resources as may be reasonably required to accomplish the purpose of the meeting in the time allocated for the

meeting. The duration of the meeting shall be sufficient to accomplish its purpose.

38.5 OASIS Posting:

38.5.1 Transmission Provider will maintain on its OASIS a list of all Interconnection Requests. The list will identify, for each Interconnection Request: (i) the maximum summer and winter megawatt electrical output; (ii) the location by county and state; (iii) the station or transmission line or lines where the interconnection will be made; (iv) the projected In-Service Date; (v) the status of the Interconnection Request, including Queue Position; (vi) the type of Interconnection Service being requested; (vii) the availability of any studies related to the Interconnection Request; (viii) the date of the Interconnection Request; (ix) the type of Generating Facility to be constructed (combined cycle, base load or combustion turbine and fuel type); and (x) for Interconnection Requests that have not resulted in a completed interconnection, an explanation as to why it was not completed. Except in the case of an Affiliate, the list will not disclose the identity of Interconnection Customer until Interconnection Customer executes an LGIA or requests that Transmission Provider file an unexecuted LGIA with FERC. Before holding a Scoping Meeting with its Affiliate, Transmission Provider shall post on OASIS an advance notice of its intent to do so. Transmission Provider shall post to its OASIS site any deviations from the study timelines set forth herein. Interconnection Study reports shall be posted to Transmission Provider's OASIS site subsequent to the meeting between Interconnection Customer and Transmission Provider to discuss the applicable study results. Transmission Provider shall also post any known deviations in the Large Generating Facility's In-Service Date.

38.5.2 Requirement to Post Interconnection Study Metrics.

Transmission Provider will maintain on its OASIS or its website summary statistics related to processing Interconnection Studies pursuant to Interconnection Requests, updated quarterly. If Transmission Provider posts this information on its website, a link to the information must be provided on Transmission Provider's OASIS site. For each calendar quarter, Transmission Provider must calculate and post the information detailed in Sections 38.5.2.1 through 38.5.2.4.

38.5.2.1 Interconnection Cluster Study Processing Time.

(A) Number of Interconnection Requests that had Cluster Studies completed within Transmission Provider's coordinated region during the reporting quarter,

(B) Number of Interconnection Requests that had Cluster Studies completed within Transmission Provider's coordinated region during the reporting quarter that were completed more than one hundred fifty (150) Calendar Days after commencement of the Cluster Study,

(C) At the end of the reporting quarter, the number of active valid Interconnection Requests with ongoing incomplete Cluster Studies one hundred fifty (150) Calendar Days after commencement of the Cluster Study,

(D) Mean time (in days), Cluster Studies completed within Transmission Provider's coordinated region during the reporting quarter, from the commencement of the Cluster Study to the date when Transmission Provider provided the completed Cluster Study to the Interconnection Customer,

(E) Percentage of Cluster Studies exceeding one hundred fifty (150) Calendar Days to complete this reporting quarter, calculated as the sum of 38.5.2.1(B) plus 38.5.2.1(C) divided by the sum of 38.5.2.1(A) plus 38.5.2.1(C)).

38.5.2.2 Interconnection Facilities Studies Processing Time.

(A) Number of Interconnection Requests that had Interconnection Facilities Studies that are completed within Transmission Provider's coordinated region during the reporting quarter,

(B) Number of Interconnection Requests that had Interconnection Facilities Studies that are completed within Transmission Provider's coordinated region during the reporting quarter that were completed more 90 or 180 Calendar Days (study duration depends on Interconnection Customer's selection on Facilities Study Agreement) after receipt by Transmission Provider of the Interconnection Customer's executed Interconnection Facilities Study Agreement,

(C) At the end of the reporting quarter, the number of active valid Interconnection Service requests with ongoing incomplete Interconnection Facilities Studies where such Interconnection Requests had executed Interconnection Facilities Studies Agreement received by Transmission Provider more than 90 or 180 Calendar Days (study duration depends on Interconnection Customer's selection on Facilities Study Agreement) before the reporting quarter end,

(D) Mean time (in days), for Interconnection Facilities Studies completed within Transmission Provider's coordinated region during the reporting quarter, calculated from the date when Transmission Provider received the executed Interconnection Facilities Study Agreement to the date when Transmission Provider provided the completed Interconnection Facilities Study to the Interconnection Customer,

(E) Percentage of delayed Interconnection Facilities Studies this reporting quarter, calculated as the sum of 38.5.2.2(B) plus 38.5.2.2(C) divided by the sum of 38.5.2.2(A) plus 38.5.2.2(C)).

**38.5.2.3 Interconnection Service Requests
Withdrawn from Interconnection Queue.**

(A) Number of Interconnection Requests withdrawn from Transmission Provider's interconnection queue during the reporting quarter,

(B) Number of Interconnection Requests withdrawn from Transmission Provider's interconnection queue during the reporting quarter before completion of any interconnection studies or execution of any interconnection study agreements,

(C) Number of Interconnection Requests withdrawn from Transmission Provider's interconnection queue during the reporting quarter before completion of a Cluster Study,

(D) Number of Interconnection Requests withdrawn from Transmission Provider's interconnection queue during the reporting quarter before

completion of an Interconnection Facilities Study,

(E) Number of Interconnection Requests withdrawn from Transmission Provider's interconnection queue after execution of a generator interconnection agreement or Interconnection Customer requests the filing of an unexecuted, new interconnection agreement,

(F) Mean time (in days), for all withdrawn Interconnection Requests, from the date when the request was determined to be valid to when Transmission Provider received the request to withdraw from the queue.

38.5.3 Transmission Provider is required to post on OASIS or its website the measures in paragraph 38.5.2.1(A) through paragraph 38.5.2.3(F) for each calendar quarter within 30 Calendar Days of the end of the calendar quarter.

Transmission Provider will keep the quarterly measures posted on OASIS or its website for three calendar years with the first required report to be in the first quarter of 2020. If Transmission Provider retains this information on its website, a link to the information must be provided on Transmission Provider's OASIS site.

38.5.4 In the event that any of the values calculated in paragraphs 38.5.2.1(E), or 38.5.2.2(E) exceeds 25 percent for two consecutive calendar quarters, Transmission Provider will have to comply with the measures below for the next four consecutive calendar quarters and must continue reporting this information until Transmission Provider reports four consecutive calendar quarters without the values calculated in 38.5.2.1(E) or 38.5.2.2(E) exceeding 25 percent for two consecutive calendar quarters:

(i) Transmission Provider must submit a report to the Commission describing the reason for

each study or group of clustered studies pursuant to an Interconnection Request that exceeded its deadline (i.e., 150, 90 or 180 days) for completion (excluding any allowance for Reasonable Efforts). Transmission Provider must describe the reasons for each study delay and any steps taken to remedy these specific issues and, if applicable, prevent such delays in the future. The report must be filed at the Commission within 45 Calendar Days of the end of the calendar quarter.

(ii) Transmission Provider shall aggregate the total number of employee-hours and third party consultant hours expended towards interconnection studies within its coordinated region that quarter and post on OASIS or its website. If Transmission Provider posts this information on its website, a link to the information must be provided on Transmission Provider's OASIS site. This information is to be posted within 30 Calendar Days of the end of the calendar quarter.

38.6 Coordination with Affected Systems: Transmission Provider will coordinate the conduct of any studies required to determine the impact of the Interconnection Request on Affected Systems with Affected System Operators and, if possible, include those results (if available) in its applicable Interconnection Study within the time frame specified in this LGIP. Transmission Provider will include such Affected System Operators in all meetings held with Interconnection Customer as required by this LGIP. Interconnection Customer will cooperate with Transmission Provider in all matters related to the conduct of studies and the determination of modifications to Affected Systems. A Transmission Provider which may be an Affected System shall cooperate with Transmission Provider with whom interconnection has been requested in all matters related to the conduct of studies and the determination of modifications to Affected Systems. It is the responsibility of the Affected System Owner to provide the requirements or potential impediments to providing the requested interconnection service, including a preliminary indication of the cost and

length of time that would be necessary to (i) complete any interconnection studies and (ii) construct any necessary Interconnection Facilities and Network Upgrades needed to reliably interconnect at the requested service level.

38.7 Withdrawal: Interconnection Customer may withdraw its Interconnection Request at any time by written notice of such withdrawal to Transmission Provider. In addition, if Interconnection Customer fails to adhere to all requirements of this LGIP, except as provided in Section 48.5 (Disputes), Transmission Provider shall deem the Interconnection Request to be withdrawn and shall provide written notice to Interconnection Customer of the deemed withdrawal and an explanation of the reasons for such deemed withdrawal. Upon receipt of such written notice, Interconnection Customer shall have fifteen (15) Business Days in which to either respond with information or actions that cures the deficiency or to notify Transmission Provider of its intent to pursue Dispute Resolution.

Withdrawal shall result in the loss of Interconnection Customer's Queue Position, including any placement in a particular Cluster. If an Interconnection Customer disputes the withdrawal and loss of its Queue Position, then during Dispute Resolution, Interconnection Customer's Interconnection Request is eliminated from the queue until such time that the outcome of Dispute Resolution would restore its Queue Position. An Interconnection Customer that withdraws or is deemed to have withdrawn its Interconnection Request shall pay to Transmission Provider all costs that Transmission Provider prudently incurs with respect to that Interconnection Request prior to Transmission Provider's receipt of notice described above. Interconnection Customer must pay all monies due to Transmission Provider before it is allowed to obtain any Interconnection Study data or results.

In the case of a withdrawal, Transmission Provider shall:

(i) update OASIS as appropriate, including any Queue Position changes;

(ii) impose the applicable Withdrawal Penalty described in Section 38.7.1, if any; and

(iii) issue any refund to Interconnection Customer pursuant to Section 48.3.2.

In the event of such withdrawal, Transmission Provider, subject to the confidentiality provisions of Section 48.1, shall provide, at Interconnection Customer's request, all information that Transmission Provider developed for any completed study conducted up to the date of withdrawal of the Interconnection Request.

38.7.1 Withdrawal Penalty. Except as provided in Attachment W of Transmission Provider's Tariff, an Interconnection Customer shall be subject to a penalty ("Withdrawal Penalty") if it withdraws its Interconnection Request or the Generating Facility does not otherwise reach Commercial Operation unless (1) the withdrawal does not negatively affect the timing or cost of other projects within the same Cluster as determined by Transmission Provider; (2) the Interconnection Customer withdraws after receiving the most recent Cluster Study Report and the costs assigned to the Interconnection Request identified in that report have increased by more than twenty-five percent (25%) compared to costs identified in the previous Cluster Study Report; (3) the Interconnection Customer withdraws after receiving the individual Facilities Study report and the costs assigned to the Interconnection Request identified in that report have increased by more than 100 percent compared to costs identified in the most recent Cluster Study Report. For the avoidance of doubt, Small Generating Facilities participating in the Cluster Study process pursuant to Section 42 shall not be subject to Withdrawal Penalties.

38.7.1.1 Calculation of the Withdrawal Penalty. If the withdrawing Interconnection Customer has demonstrated any of the Readiness Milestone Options in Sections 38.4.1(v)(a)-(c)

and is withdrawing prior to executing an LGIA, the Interconnection Customer shall be charged one (1) times its actual allocated cost of all studies performed up until that point.

If the withdrawing Interconnection Customer only demonstrated the Readiness Milestone Option in Section 38.4.1(v)(d) and is withdrawing prior to executing an LGIA, that Interconnection Customer's Withdrawal Penalty shall be as follows:

(a) If Interconnection Customer withdraws after receipt of a Cluster Study Report, the Interconnection Customer shall be charged two (2) times of its actual allocated cost of all studies performed for Interconnection Customers in the Cluster up until that point, regardless of any previous Withdrawal Penalty revenues received. This amount shall be capped at one (1) million dollars.

(b) If Interconnection Customer withdraws after receipt of any applicable restudy reports issued pursuant to Section 42.4, the Interconnection Customer shall be charged three (3) times of its actual allocated cost of all studies performed for Interconnection Customers in the Cluster up until that point, regardless of any previous Withdrawal Penalty revenues received. This amount shall be capped at one and one half (1.5) million dollars.

(c) If Interconnection Customer withdraws after receipt of the individual Facility Study report issued pursuant to Section 43, the Interconnection Customer shall be charged five (5) times of its actual allocated cost of all studies performed for Interconnection Customers in the Cluster up until that point, regardless of any previous Withdrawal Penalty revenues received. This amount shall be capped at two (2) million dollars.

The Withdrawal Penalty for any Interconnection Customer that, before achieving Commercial Operation, withdraws after executing an LGIA shall be nine (9) times of its actual allocated cost of all studies performed for Interconnection Customers in the Cluster up until that point, regardless of any previous Withdrawal Penalty revenues received. In the event that the Interconnection Customer suspends its interconnection agreement, the Interconnection Customer shall be obligated to pay for costs associated with any studies or restudies required as a result of the suspension of the interconnection agreement, including any restudies associated with any affected lower-queued customers.

38.7.1.2 Distribution of the Withdrawal Penalty.

Any Withdrawal Penalty revenues shall be used to fund generation interconnection studies, including individual Interconnection Facility Studies. Withdrawal Penalty revenues shall first be applied, in the form of a bill credit, to not-yet-invoiced study costs for other Interconnection Customers in the same Cluster, and to the extent that such studies are fully credited, shall be applied to study costs of future Clusters in queue order. Withdrawn Interconnection Customers shall not receive a bill credit associated with Withdrawal Penalty revenues. Distribution of Withdrawal Penalty revenues to a specific study shall not exceed the total actual study costs. Allocation of Withdrawal Penalty revenues within a Cluster to a specific Interconnection Customer shall be (1) fifty percent (50%) on a per capita basis based on number of Interconnection Requests in the applicable Cluster; and (2) fifty percent (50%) to Interconnection Customers on a pro-rata basis based on requested megawatts included in the applicable Cluster. Distribution of Withdrawal Penalty revenue associated with Section 38.7.1.1(c) shall not be distributed to the remaining Interconnection Customers in that Cluster until all Interconnection Customers in that Cluster have reached Commercial Operation and thereafter shall be distributed as described above. Transmission Provider shall not change the distribution of Withdrawal Penalty revenue without authorization by the Commission. Transmission Provider shall post the Withdrawal Penalty balance on its OASIS site.

38.8 Identification of Contingent Facilities. Transmission Provider uses a Cluster Study methodology for processing Interconnection Requests, which includes starting each interconnection study with the baseline assumption that the following are in-service: (i) generating facilities that are directly interconnected to the Transmission System; (ii) generating facilities that are interconnected to Affected Systems and may have an impact on the Interconnection Request; (iii) generating facilities that have a pending higher queued Interconnection Request to interconnect to the Transmission System and their associated Interconnection Facilities and Network Upgrade requirements; (iv) generating facilities that have no Queue Position but have executed an interconnection agreement, or requested that an unexecuted interconnection agreement be filed with FERC, and their associated Interconnection Facilities and Network Upgrades; (v) pending and granted requests for transmission service and their associated facilities or upgrade requirements to the extent they have an impact on the Interconnection Request; and (vi) Transmission Provider's transmission expansion plan components, or the transmission expansion plan components of third-party transmission providers, to the extent they have an impact on the Interconnection Request. Transmission Provider will identify, consistent with Good Utility Practice, the interconnection study's assumed, unbuilt facilities and upgrades upon which the Interconnection Request's costs, timing, and study findings are dependent, and if delayed or not built, could cause a need for Re-Studies of the Interconnection Request or a reassessment of the Interconnection Request's Interconnection Facilities and/or Network Upgrades and/or the Interconnection Request's costs and timing. This set of facilities and upgrades will be listed as the Contingent Facilities in an appendix to the Interconnection Request's System Impact Study report, which will include: (a) a description of each Contingent Facility; and (b) the Interconnection Request, transmission service request or planned project for which the Contingent Facility was initially required. If requested by the Interconnection Customer, and if readily available and not commercially sensitive, Transmission Provider will

also provide an estimate of the costs of and the in-service date for each Contingent Facility, which may be subject to later updates if a Contingent Facility's estimated costs and in-service dates change.

38.9. Informational Interconnection Study Requests.

Interconnection Customers evaluating different options (such as different sizes, sites, or voltages) are encouraged but not required to use the Informational Interconnection Study Process in Section 41 before entering the Cluster Study process.

IV. LARGE GENERATION INTERCONNECTION SERVICE

39 Interconnection Request Evaluation Process

Once an Interconnection Customer has submitted a valid Interconnection Request pursuant to Section 38.4, such Interconnection Request shall be admitted into Transmission Provider's queue for further processing pursuant to the following procedures.

39.1 Queue Position.

39.1.1 Assignment of Queue Position. Transmission Provider shall assign a Queue Position as follows: the Queue Position within the queue shall be assigned based upon the date and time of receipt of all items required pursuant to the provisions of Section 38.4. There is no queue for Informational Interconnection Studies.

39.1.2 Higher Queue Position. A higher Queue Position assigned to an Interconnection Request is one that has been placed "earlier" in the queue in relation to another Interconnection Request that is assigned a lower Queue Position. All requests studied in a single Cluster shall be considered equally queued but Clusters initiated earlier in time shall be considered to have a higher Queue Position than Clusters initiated later. The Queue Position of an Interconnection Request shall have no bearing on the allocation of the cost of the common upgrades identified in the applicable Cluster Study (such costs will be allocated among Interconnection Requests in accordance with Section 39.2.3). Moving a Point of Interconnection shall result in a loss of Queue Position if it is deemed a Material Modification under Section 39.4.3.

39.2. General Study Process.

Cluster Studies performed within the Interconnection Study process shall be conducted in such a manner to ensure the efficient implementation of the applicable regional transmission expansion plan in light of the Transmission System's capabilities at the time of each study.

39.2.1 Cluster Request Windows.

Transmission Provider shall accept Interconnection Requests during a forty-five (45) Calendar Day period, hereinafter referred to as the "Cluster Request Window." The initial Cluster Request Window shall open for Interconnection Requests beginning April 1 following commencement of the transition process set out in Attachment W to this Tariff and successive Cluster Request Windows shall open annually every April 1 thereafter.

39.2.2 Study Cost Allocation.

Transmission Provider shall determine each Interconnection Customer's share of the costs of a Cluster Study by allocating: (1) fifty percent (50%) of the applicable study costs to Interconnection Customers on a per capita basis based on number of Interconnection Requests included in the applicable Cluster; and (2) fifty percent (50%) of the applicable study costs to Interconnection Customers on a pro-rata basis based on requested megawatts included in the applicable Cluster. For example, the cost of a Cluster Study consisting of a 100 MW request and a 900 MW request would be allocated 30% to the 100 MW request and 70% to the 900 MW request.

Any refunds of deposits paid in excess of Interconnection Customer costs allocated pursuant to this Section 39.2.2 shall be issued in accordance with Section 48.3.

39.2.3 Transmission Provider's Interconnection Facilities and Network Upgrade Cost Allocation.

Interconnection Customer funding of Network Upgrades are eligible for credits as provided in Article 11.4 of the LGIA. Notwithstanding Section 38.1, for Transmission Provider's Interconnection Facilities and Network Upgrades identified in Cluster Studies, Transmission Provider shall calculate each Interconnection Customer's share of costs in the manner set forth below. If a Cluster Study includes one or

more Cluster Areas, such costs shall be calculated and allocated among Interconnection Customers within the same Cluster Area. Interconnection Customer shall be responsible for funding the costs of any facilities identified by Transmission Provider in such Interconnection Customer's individual Facilities Study report.

a) Station equipment Network Upgrades, including all switching stations, shall be allocated based on the number of Generating Facilities interconnecting at an individual station on a per capita basis (i.e. on a per Interconnection Request basis). If multiple Interconnection Customers are connecting to the Transmission Provider's System through a single Interconnection Customer's Interconnection Facility (i.e. sharing the Interconnection Customer's Interconnection Facility connecting to the Transmission Provider's Interconnection Facility(ies)), those Interconnection Customers shall be considered one Interconnection Customer for the per capita calculation described in the preceding sentence. Shared Transmission Provider's Interconnection Facilities shall be allocated based on the number of Generating Facilities sharing that Transmission Provider's Interconnection Facility on a per capita basis.

b) The funding responsibility for Network Upgrades other than those identified in Section 39.2.3(a) shall be as follows: Interconnection Customers within a Cluster Study that have requested Energy Resource Interconnection Service shall bear their allocable share of the cost of Network Upgrades necessary to provide such service. Interconnection Customers within a Cluster Study that have requested Network Resource Interconnection Service shall bear their allocable share of the cost of Network Upgrades necessary to provide such service. Such allocation shall be based on the proportional capacity of each individual

Generating Facility in the Cluster Studies requiring such Network Upgrades in accordance with the iterative process provided in Section 42.3.

- c) Costs of Transmission Provider's Interconnection Facilities are directly assigned to the Interconnection Customer(s) using such facilities.
- d) Notwithstanding any other provision of this Section 39.2.3, no Interconnection Customer shall be responsible for any Network Upgrade costs identified pursuant to this Section if such Interconnection Customer's Interconnection Request individually represents one (1) percent or less of the total requested megawatts included in the applicable Cluster.

39.3 Transferability of Queue Position: An Interconnection Customer may transfer its Queue Position to another entity only if such entity acquires the specific Generating Facility identified in the Interconnection Request and the Point of Interconnection does not change.

39.4 Modifications: Interconnection Customer shall submit to Transmission Provider, in writing, modifications to any information provided in the Interconnection Request. Interconnection Customer shall retain its Queue Position if the modifications are in accordance with Sections 39.4.1, 39.4.2 or 39.4.6, or are determined not to be Material Modifications pursuant to Section 39.4.3.

Notwithstanding the above, during the course of the Interconnection Studies, either Interconnection Customer or Transmission Provider may identify changes to the planned interconnection that may improve the costs and benefits (including reliability) of the interconnection, and the ability of the proposed change to accommodate the Interconnection Request. Subject to the forgoing sentence, and provided, however, they do not result in a Material Modification, to the extent the identified changes are acceptable to Transmission Provider and

Interconnection Customer and potentially impacted Interconnection Customers in the same Cluster, such acceptance not to be unreasonably withheld, Transmission Provider shall modify the Point of Interconnection and/or configuration in accordance with such changes and proceed with any re-studies necessary to do so in accordance with Section 42.5(f) and Section 43.5 as applicable and Interconnection Customer shall retain its Queue Position.

39.4.1 Prior to the return of the executed Cluster Study Agreement to Transmission Provider, modifications permitted under this Section shall include specifically: (a) a decrease of up to 60 percent of electrical output (MW) of the proposed project, through either (1) a decrease in plant size or (2) a decrease in Interconnection Service level (consistent with the process described in Section 38.1) accomplished by applying Transmission Provider-approved injection-limiting equipment; (b) modifying the technical parameters associated with the Large Generating Facility technology or the Large Generating Facility step-up transformer impedance characteristics; and (c) modifying the interconnection configuration. For plant increases, the incremental increase in plant output will go in the next Cluster Study Window for the purposes of cost allocation and study analysis.

39.4.2 Prior to the return of the executed Interconnection Facilities Study Agreement to Transmission Provider, the modifications permitted under this Section shall include specifically: (a) additional 15 percent decrease of electrical output of the proposed project through either (1) a decrease in plant size (MW) or (2) a decrease in Interconnection Service level (consistent with the process described in Section 38.1) accomplished by applying Transmission Provider-approved injection-limiting equipment; (b) Large Generating Facility technical parameters associated with modifications to Large Generating Facility technology and transformer impedances; provided, however, the incremental

costs associated with those modifications are the responsibility of the requesting Interconnection Customer; and (c) a Permissible Technological Advancement for the Large Generating Facility after the submission of the Interconnection Request. Section 39.4.6 specifies a separate technological change procedure including the requisite information and process that will be followed to assess whether the Interconnection Customer's proposed technological advancement under Section 39.4.2(c) is a Material Modification. Section 36 contains a definition of Permissible Technological Advancement.

- 39.4.3** Prior to making any modification other than those specifically permitted by Sections 39.4.1, 39.4.2, and 39.4.6, Interconnection Customer may first request that Transmission Provider evaluate whether such modification is a Material Modification. In response to Interconnection Customer's request, Transmission Provider shall evaluate the proposed modifications prior to making them and inform Interconnection Customer in writing of whether the modifications would constitute a Material Modification. Any change to the Point of Interconnection, except those deemed acceptable under Sections 38.1, 39.4.1, or so allowed elsewhere, shall constitute a Material Modification. Interconnection Customer may then withdraw the proposed modification or proceed with a new Interconnection Request for such modification.
- 39.4.4** Upon receipt of Interconnection Customer's request for modification permitted under this Section 39.4, Transmission Provider shall commence and perform any necessary additional studies as soon as practicable, but in no event shall Transmission Provider commence such studies later than thirty (30) Calendar Days after receiving notice of Interconnection Customer's request. Any additional studies resulting from such modification shall be done at Interconnection Customer's cost.

39.4.5 Extensions of less than three (3) cumulative years in the Commercial Operation Date of the Large Generating Facility to which the Interconnection Request relates are not material and should be handled through construction sequencing. For purposes of this Section, the Commercial Operation Date reflected in the initial Interconnection Request shall be used. Such cumulative extensions are inclusive of extensions requested after execution of the LGIA by Interconnection Customer.

39.4.6 Technological Change Procedure.

39.4.6.1 Interconnection Customer Technological Advancement Request.

(a) At any time after the submission of an Interconnection Request, but before the execution of an Interconnection Facility Study Agreement by Interconnection Customer, an Interconnection Customer may submit a written request to include additional or substituted technological components for its Large Generating Facility that differ from the description of the Large Generating Facility in its Interconnection Request. Such request shall be submitted on the request template format provided by Transmission Provider on its OASIS site. As required in the request template, Interconnection Customer's request must identify the specific technological advancement that it seeks to adopt and provide all information necessary to support Transmission Provider's analysis of how the proposed technological advancement (i) results in equal to or better electrical performance, (ii) does not increase the Interconnection Customer's requested

interconnection service, and (iii) does not cause any reliability concerns (i.e., material impacts to the transmission system, including impacts to short circuit capability limits, steady-state thermal and voltage limits, or dynamic system stability and response). If the Technological Advancement Request is submitted during the time allocated under the LGIP for Interconnection Customer to execute and return a Study Agreement to Transmission Provider, the deadline for execution and return of the Study agreement will be suspended while Transmission Provider analyzes the Technological Advancement Request in accordance with Section 39.4.6.

(b) If Transmission Provider is performing an Interconnection Study for the Interconnection Request at the time that Interconnection Customer submits a Technological Advancement Request, Transmission Provider shall suspend work on any such pending studies until it has completed its analysis of the Technological Advancement Request and any Technological Advancement Study.

(c) Interconnection Customer's Technological Advancement Request shall be deemed incomplete, and not subject to further study or review, until such time that the Interconnection Customer provides the Transmission Provider with any additional requested information necessary for the Transmission Provider to either (i) study the Technological Advancement Request (in such case, a Technological Advancement Study Agreement will

be required, per Section 39.4.6.3), or (ii) to determine that further study of the Technological Advancement Request is not necessary. Transmission Provider shall notify the Interconnection Customer in writing of the date it deems Interconnection Customer's Technological Advancement Request complete.

39.4.6.2 Initial Analysis of Technological Advancement Request.

(a) After the Interconnection Customer's Technological Advancement Request is deemed complete, the Transmission Provider will perform an initial analysis to determine whether the proposed technological advancement is a Permissible Technological Advancement without the need of additional study.

(b) If the Transmission Provider determines on the basis of its initial analysis that Interconnection Customer has demonstrated that the proposed technological advancement is a Permissible Technological Advancement without the need for additional study, the Transmission Provider will incorporate the technological advancement into Interconnection Customer's Interconnection Request.

(c) If the Transmission Provider determines on the basis of its initial analysis that Interconnection Customer has not demonstrated that the proposed technological advancement is a Permissible Technological Advancement, then the

Technological Advancement Request will be treated as a request for modification of the Interconnection Request under Section 39.4.3.

(d) If the Transmission Provider determines on the basis of its initial analysis that further study is required to conclude whether the Technological Advancement Request is a Permissible Technological Advancement, Transmission Provider will require that a Technological Advancement Study be performed at the sole expense of the Interconnection Customer consistent with Sections 39.4.6.3, 39.4.6.4, 39.4.6.5.

39.4.6.3 Technological Advancement Study Agreement:

(a) If after its initial analysis of a Technological Advancement Request, Transmission Provider determines that a Technological Advancement Study is necessary to determine whether the requested technological advancement constitutes a Permissible Technological Advancement, Transmission Provider will tender a Technological Advancement Study Agreement to the Interconnection Customer for execution. In order to proceed with its technological advancement study request, Interconnection Customer must execute and deliver the Technological Advancement Study Agreement to the Transmission Provider no later than ten (10) Business Days after its receipt, along with a \$10,000 deposit.

(b) The Technological Advancement Study Agreement will include an estimate of the cost of the Technological Advancement Study.

39.4.6.4 Technological Advancement Study Procedures:

(a) Transmission Provider shall complete the Technological Advancement Study within thirty (30) Calendar Days of (i) receipt of the executed Technological Advancement Study Agreement, (ii) the \$10,000 deposit and (iii) all technical data and information necessary to complete the Technological Advancement Study, including any additional information requested under Section 39.4.6.4(c).

(b) The Technological Advancement Study shall seek to determine (i) whether the proposed technological advancement is a Permissible Technological Advancement, by focusing on whether the proposed technological advancement will result in equal or better electrical performance than the Large Generating Facility described in the Interconnection Request, and whether the proposed technological advancement will cause any reliability concerns (i.e., material impacts to the transmission system, including impacts to short circuit capability limits, steady-state thermal and voltage limits, or dynamic system stability and response); and (ii) if the proposed technological advancement is determined not to be a Permissible Technological Advancement, whether the proposed

technological advancement is a Material Modification.

(c) Interconnection Customer shall cooperate with Transmission Provider to provide any additional information that Transmission Provider may require to complete the Technological Advancement Study. If the Transmission Provider determines that it requires additional technical information to complete the Technological Advancement Study the Transmission Provider shall notify the Interconnection Customer of the additional technical information required. The Interconnection Customer shall have ten (10) business days to provide the additional technical information or the Transmission Provider will finalize the Technological Advancement Study with results that indicate that the Interconnection Customer has not demonstrated that its proposed Technological Advancement is a Permissible Technological Advancement.

(d) Upon completion of the Technological Advancement Study, Transmission Provider shall provide Interconnection Customer notice of its study conclusions. Upon request, Transmission Provider shall also provide Interconnection Customer supporting documentation, workpapers and databases, and/or data developed in the preparation of the Technological Advancement Study, subject to confidentiality arrangements consistent with Section 48.1.

(e) If the Technological Advancement Study determines that the proposed technological advancement is either (i) a Permissible Technological Advancement, or (ii) is not a Permissible Technological Advancement but does not constitute a Material Modification, then the Interconnection Request shall be amended to reflect the technological advancement.

(f) If the Technological Advancement Study determines that the proposed technological advancement is not a Permissible Technological Advancement and also constitutes a Material Modification, Transmission Provider shall provide an explanation for this conclusion. Interconnection Customer may then withdraw the proposed modification or proceed with a new Interconnection Request for such modification.

39.4.6.5 Treatment of Other Interconnection Studies During and After Technological Advancement Study.

Upon completion of the Transmission Provider's initial analysis of a Technological Advancement Request and any Technological Advancement Study, Transmission Provider and Interconnection Customer shall amend any existing Interconnection Study agreements as necessary to incorporate elements of the requested technological advancement or the results of the Technological Advancement Study. Transmission Provider may require additional time or information to

complete or re-run studies that were suspended during the pendency of the Technological Advancement Request.

IV. LARGE GENERATION INTERCONNECTION SERVICE

40 New Transmission Provider

40.1 [Reserved]

40.2 New Transmission Provider.

If Transmission Provider transfers control of its Transmission System to a successor Transmission Provider during the period when an Interconnection Request is pending, the original Transmission Provider shall transfer to the successor Transmission Provider any amount of the deposit or payment with interest thereon that exceeds the cost that it incurred to evaluate the request for interconnection. Any difference between such net amount and the deposit or payment required by this LGIP shall be paid by or refunded to the Interconnection Customer, as appropriate. The original Transmission Provider shall coordinate with the successor Transmission Provider to complete any Interconnection Study, as appropriate, that the original Transmission Provider has begun but has not completed. If Transmission Provider has tendered a draft LGIA to Interconnection Customer but Interconnection Customer has not either executed the LGIA or requested the filing of an unexecuted LGIA with FERC, unless otherwise provided, Interconnection Customer must complete negotiations with the successor Transmission Provider.

IV. LARGE GENERATION INTERCONNECTION SERVICE

41 Informational Interconnection Study

41.1 Informational Interconnection Studies.

41.1.1 Informational Interconnection Study Request.

Interconnection Customers may not submit requests for Informational Interconnection Studies until after the Transition Readiness Deadline, as defined in Attachment W. Thereafter, at any time prior to submission of an Interconnection Request, an Interconnection Customer may request, and Transmission Provider (either itself or through a consultant) shall perform a reasonable number of Informational Interconnection Studies pursuant to the terms of Section 41.

Interconnection Customer shall submit to Transmission Provider an Informational Interconnection Study Request in the form of Appendix 2 to this LGIP and shall describe the assumptions that Interconnection Customer wishes Transmission Provider to study within the scope described in Section 41.1.3, including a proposed Point(s) of Interconnection and any reasonable alternative Point(s) of Interconnection.

At the time the Informational Interconnection Study Request is submitted, Interconnection Customer must request either Energy Resource Interconnection Service or Network Resource Interconnection Service, as described in Section 38.4.1; provided, however, any Interconnection Customer requesting an Informational Interconnection Study for Network Resource Interconnection Service may also request that it be concurrently studied for Energy Resource Interconnection Service.

Interconnection Customer must submit a deposit with each Informational Interconnection Request even when more than one request is submitted for a single site. An Informational Interconnection Request to evaluate one site at two different voltage levels shall be treated as two Informational Interconnection Requests.

At the request of either the Interconnection Customer or Transmission Provider, Transmission Provider and Interconnection Customer will schedule a scoping meeting at a mutually agreed-upon time.

41.1.2 Informational Interconnection Study Agreement.

Within five (5) Business Days after receipt of a request for an Informational Interconnection Study, Transmission Provider shall provide to Interconnection Customer an Informational Interconnection Study Agreement in the form of Appendix 2A.

The Informational Interconnection Study Agreement shall: (i) include the scope of work for the Informational Interconnection Study, subject to other requirements in Section 41.1.3, (ii) specify the technical data that Interconnection Customer must provide, (iii) specify the Informational Interconnection Study case and assumptions, and (iv) identify the Transmission Provider's estimate of the cost of the Informational Interconnection Study. Notwithstanding the above, Transmission Provider shall not be required as a result of an Informational Interconnection Study request to conduct any additional Interconnection Studies with respect to any other Interconnection Request.

Interconnection Customer shall execute the Informational Interconnection Study Agreement within ten (10) Business Days of receipt of an agreed upon scope of work and deliver the Informational Interconnection Study Agreement, the technical data, and a \$10,000 study deposit to Transmission Provider. Interconnection Customer shall be responsible for actual study costs.

41.1.3 Scope of Informational Interconnection Study.

The intent of the Informational Interconnection Study is to aid Interconnection Customer in its business decisions related to interconnection of generation facilities prior to submitting an Interconnection Request. The Informational Interconnection Study will consider the Base Case as well as all generating facilities (and with respect to (iii), any identified Network Upgrades) that, on the date the Informational

Interconnection Study is commenced: (i) are directly interconnected to the Transmission System; (ii) are interconnected to Affected Systems and may have an impact on the Interconnection Request; (iii) have a pending higher queued Interconnection Request to interconnect to the Transmission System; and (iv) have no Queue Position but have executed an LGIA or requested that an unexecuted LGIA be filed with FERC. The Informational Interconnection Study will consist of a power flow and short circuit analysis.

To the extent possible, the Informational Interconnection Study shall identify the potential Transmission Provider's Interconnection Facilities and the Network Upgrades, and the estimated cost thereof, that may be required to provide Interconnection Service based upon the results and assumptions of the Informational Interconnection Study.

The Informational Interconnection Study shall be performed solely for informational purposes and does not bind the Transmission Provider in any way or entitle the requesting Interconnection Customer to a Queue Position. Interconnection Customer requesting an Informational Interconnection Study shall not be assigned any cost responsibility for Network Upgrades. For the avoidance of doubt, neither the request for nor the performance of an Informational Interconnection Study shall be considered an Interconnection Request.

41.1.4 Informational Interconnection Study Procedures.

The executed Informational Interconnection Study Agreement, the deposit, and technical and other data called for therein must be provided to Transmission Provider within ten (10) Business Days of Interconnection Customer receipt of the Informational Interconnection Study Agreement. Transmission Provider shall use Reasonable Efforts to complete the Informational Interconnection Study within a mutually agreed upon time period specified within the Informational Interconnection Study Agreement. This time period shall take into account all previous requests for Informational Studies that have been submitted but not yet completed. If Transmission Provider is unable to complete the Informational Interconnection Study within such time period, it

shall notify Interconnection Customer and provide an estimated completion date and an explanation of the reasons why additional time is required.

Any difference between the study payment and the actual cost of the study shall be paid to Transmission Provider or refunded to Interconnection Customer, as appropriate. Upon request, Transmission Provider shall provide Interconnection Customer supporting documentation and work papers and databases or data developed in the preparation of the Informational Interconnection Study, subject to confidentiality arrangements consistent with Section 48.1.

IV. LARGE GENERATION INTERCONNECTION SERVICE

42 Cluster Study

42.1 Cluster Study Agreement: No later than five (5) Business Days after the close of a Cluster Request Window, Transmission Provider shall tender to each Interconnection Customer that submitted a valid Interconnection Request a Cluster Study Agreement in the form of Appendix 3 to this LGIP. The Cluster Study Agreement shall require the Interconnection Customer to compensate Transmission Provider for the actual cost of the Cluster Study. The specifications, assumptions, or other provisions in the appendices of the Cluster System Impact Study Agreement provided pursuant to this Section 42.1 shall be subject to change by Transmission Provider following conclusion of the Scoping Meeting.

42.2 Customer Engagement Window

Upon the close of each Cluster Request Window, Transmission Provider will open a thirty (30) Calendar Day period ("Customer Engagement Window"). During the Customer Engagement Window, Transmission Provider shall hold a Scoping Meeting with all interested Interconnection Customers. Notwithstanding the preceding sentence and upon written consent of all Interconnection Customers within a specific Cluster, Transmission Provider may shorten the Customer Engagement Window in order to start the Cluster Study earlier. Within the first ten (10) Business Days following the close of the Cluster Request Window, Transmission Provider shall post on its OASIS site a list of Interconnection Requests for that Cluster. The list shall identify, for each Interconnection Request: (i) the requested amount of Interconnection Service; (ii) the location by county and state; (iii) the station or transmission line or lines where the interconnection will be made; (iv) the projected In-Service Date; (v) the type of Interconnection Service requested; (vi) the type of Generating Facility to be constructed including fuel type such as wind, natural gas, coal, or solar; and (vii) the Cluster Area assigned to each Interconnection Request. During the Customer Engagement Window, Transmission Provider will provide to Interconnection Customer a non-binding

updated good faith estimate of the cost and timeframe for completing the Cluster Study.

At the end of the Customer Engagement Window, all Interconnection Requests deemed valid that have executed a Cluster Study Agreement in the form of Appendix 3 shall be included in that Cluster Study. Any Interconnection Requests not deemed valid or undergoing Dispute Resolution at the close of the Customer Engagement Window shall not be included in that Cluster. Immediately following the Customer Engagement Window, Transmission Provider shall initiate the Cluster Study described in more detail in Section 42.

42.3 Execution of Cluster Study Agreement and Scope of Cluster Study.

Interconnection Customer shall execute the Cluster Study Agreement and deliver the executed Cluster Study Agreement to Transmission Provider no later than the close of the Customer Engagement Window.

The Cluster Study shall evaluate the impact of the proposed interconnection on the reliability of the Transmission System. The Cluster Study will consider the Base Case as well as all generating facilities (and with respect to (iii) below, any identified Network Upgrades associated with such higher queued interconnection) that, on the date the Cluster Request Window closes:

- (i) are existing and directly interconnected to the Transmission System;
- (ii) are existing and interconnected to Affected Systems and may have an impact on the Interconnection Request;
- (iii) have a pending higher queued or higher clustered Interconnection Request to interconnect to the Transmission System; and
- (iv) have no Queue Position but have executed an LGIA or requested that an unexecuted LGIA be filed with FERC.

For purposes of determining necessary Interconnection Facilities and Network Upgrades, the Cluster Study shall consider the level of Interconnection Service requested by the Interconnection Customer, unless otherwise required to study the full Generating Facility Capacity due to safety or reliability concerns.

The Cluster Study shall consist of power flow, stability, and short circuit analyses, the results of which are documented in a single Cluster Study Report, or Cluster Re-Study Report, as applicable.

For purposes of identifying Network Upgrades and other facilities caused by requests for Network Resource Interconnection Service, Transmission Provider will run two iterations of the Cluster Study. The first iteration of the Cluster Study shall assume all requests in the applicable Cluster Study have requested Energy Resource Interconnection Service, to establish a baseline of shared Network Upgrades. In the second iteration, the Transmission Provider shall update the study with any requests for Network Resource Interconnection Service, as applicable, to identify the incremental Network Upgrades caused by the requests for Network Resource Interconnection Service.

At the conclusion of the Cluster Study, Transmission Provider will issue a Cluster Study Report. The Cluster Study report will state the assumptions upon which it is based; state the results of the analyses; and provide the requirements or potential impediments to providing the requested interconnection service, including a preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the interconnection. The Cluster Study Report shall identify Transmission Provider's Interconnection Facilities and Network Upgrades expected to be required to reliably interconnect the Generating Facilities in that Cluster Study at the requested Interconnection Service level and shall provide non-binding estimates for required upgrades. The Cluster Study Report shall identify each Interconnection Customer's estimated allocated costs for Transmission Provider's Interconnection Facilities and Transmission

Provider's Network Upgrades pursuant to the methodology in Section 39.2.3. Transmission Provider shall hold an open stakeholder meeting pursuant to Section 42.4 below.

The Cluster Study report will provide a list of facilities that are required as a result of the Interconnection Requests and a non-binding good faith estimate of cost responsibility and a non-binding good faith estimated time to construct.

Upon issuance of a Cluster Study Report, or Cluster Re-Study Report, if any, Transmission Provider shall simultaneously tender a draft Facility Study Agreement, subject to the conditions in Section 43.1.

42.4 Cluster Study Procedures.

Transmission Provider shall coordinate the Cluster Study with any Affected System that is affected by the Interconnection Request pursuant to Section 38.6 above. Transmission Provider shall utilize existing studies to the extent practicable when it performs the Cluster Study. Interconnection Requests for a Cluster Study may be submitted only within the Cluster Request Window and Transmission Provider shall initiate the Cluster Study process pursuant to Section 39.2.1.

- a. Transmission Provider may segment and perform Cluster Studies according to geographically and/or electrically relevant areas on the Transmission Provider's Transmission System ("Cluster Area"). Cluster Areas shall be determined by the Transmission Provider at the end of each Customer Engagement Window and shall be based on the valid Interconnection Requests that are submitted during the Cluster Request Window. Before the Scoping Meeting, the Transmission Provider shall initially determine each Cluster Area and shall post on its OASIS website, for discussion during the Scoping Meeting, a draft plan for the Cluster Study, including a map and table defining the Cluster Areas assigned to each valid Interconnection Request received during the Cluster Request Window. Transmission Provider shall post an updated Cluster Area map, table, and final

Cluster Study plan on OASIS by no later than the end of the Customer Engagement Window. The Cluster Study shall consist of all valid Interconnection Requests in each respective Cluster Area that have executed a Cluster Study Agreement and have provided all required information before the close of the Customer Engagement Window.

- b. Unless restudies are required pursuant to Section 42.5, Transmission Provider shall use Reasonable Efforts to complete the Cluster Study within one hundred fifty (150) Calendar Days of the close of the Customer Engagement Window.
- c. Within ten (10) Business Days of simultaneously furnishing a Cluster Study Report (or, as applicable, Cluster Re-Study Report) and a draft Interconnection Facilities Study Agreement to Interconnection Customers and posting such report on OASIS, Transmission Provider shall convene an open meeting to discuss the study results ("Cluster Study Report Meeting" or "Cluster Re Study Report Meeting"). Transmission Provider shall, upon request, also make itself available to meet with individual Interconnection Customers after the report is provided.

42.5 Cluster Study Withdrawals and Re-Studies

- a. If no Interconnection Customer withdraws from the Cluster after completion of the Cluster Study or Cluster Re-Study or is deemed withdrawn pursuant to Section 38.7, Transmission Provider shall electronically notify Interconnection Customers in the Cluster that a Cluster Re-Study is not required.
- b. If one or more Interconnection Customer withdraw(s) from the Cluster, Transmission Provider shall determine if a Cluster Re-Study of the Cluster is necessary. If Transmission Provider determines a Cluster Re-Study is not necessary, Transmission Provider shall provide an updated Cluster Study Report within thirty (30) Calendar Days of such determination. When the updated Cluster Study Report is issued, Transmission Provider shall electronically notify

Interconnection Customers in the Cluster that a Cluster Re-Study is not required.

- c. If one or more Interconnection Customers withdraws from the Cluster and Transmission Provider determines a restudy of the Cluster is necessary as a result, Transmission Provider will continue with such re-studies as described in Section 42.5.d below, until Transmission Provider determines that no further re-studies are required. If an Interconnection Customer withdraws after Section 42.5.a, Section 42.5.c, during the Interconnection Facilities Study, or after other Interconnection Customers in the same Cluster have executed LGIAs, and Transmission Provider determines a restudy of the Cluster is necessary, the Cluster (including any Cluster Area) shall be restudied as described in Section 42.5.d below. Transmission Provider shall electronically notify Interconnection Customers in the Cluster and post on OASIS that a re-study is required.
- d. The scope of any Cluster Re-study shall be consistent with the scope of an initial Cluster Study pursuant to Section 42.3. Transmission Provider shall use Reasonable Efforts to complete the Cluster Re-Study for all Cluster Areas within one hundred fifty (150) Calendar Days of the commencement of the first Cluster Area Re-Study. The results of the Cluster Re-Study shall be combined into a single report ("Cluster Re-Study Report"), and Transmission Provider shall hold an open stakeholder meeting ("Cluster Re-Study Report Meeting") within ten (10) Business Days of publishing Cluster Re-Study Report on OASIS.

If additional re-studies are required, Interconnection Customer and Transmission Provider shall follow the procedures of this Section 42.5 until such time that Transmission Provider determines that no further re-studies are required. Transmission Provider shall electronically notify Interconnection Customers in the Cluster when no further re-studies are required.

- e. At the request of Interconnection Customer or at any time Transmission Provider determines that it will not meet the required timeframe for completing the Cluster Study, Transmission Provider shall notify Interconnection Customers as to the schedule status of the Cluster Study. If Transmission Provider is unable to complete the Cluster Study within the time period, it shall notify Interconnection Customers and provide an estimated completion date with an explanation of the reasons why additional time is required.

Upon request, Transmission Provider shall provide to Interconnection Customer all supporting documentation, workpapers, and relevant pre-Interconnection Request and post-Interconnection Request power flow, short circuit and stability databases for the Cluster Study, subject to confidentiality arrangements consistent with Section 48.1.

- f. If Re-Study of the Cluster Study other than the Re-Study described in Section 42.5(a)-(d) is required due to a higher or equal priority queued project dropping out of the queue, or a modification of a higher queued project subject to Section 39.4, Transmission Provider shall notify Interconnection Customer(s) in writing. The Transmission Provider shall make Reasonable Efforts to ensure such Re-Study takes no longer than one hundred fifty (150) Calendar Days from the date of notice. Except as provided in Section 38.7 in the case of withdrawing Interconnection Customers, any cost of Re-Study shall be borne by Interconnection Customer(s) being re-studied.

IV. LARGE GENERATION INTERCONNECTION SERVICE

43 Interconnection Facilities Study

43.1 Interconnection Facilities Study Agreement:

Simultaneously with the delivery of the final Cluster Study Report, or Cluster Re-Study Report if applicable, Transmission Provider shall provide to Interconnection Customer an Interconnection Facilities Study Agreement in the form of Appendix 4 to this LGIP. The Interconnection Facilities Study Agreement shall provide that Interconnection Customer shall compensate Transmission Provider for the actual cost of the Interconnection Facilities Study. Transmission Provider shall provide to Interconnection Customer a non-binding good faith estimate of the cost and timeframe for completing the Interconnection Facilities Study.

Interconnection Customer shall execute the Interconnection Facilities Study Agreement and deliver the executed Interconnection Facilities Study Agreement to Transmission Provider within thirty (30) Calendar Days after its receipt, together with:

- a. any required technical data;
- b. a demonstration of Site Control pursuant to Section 38.4.1(iii)(a); and
- c. demonstration of a Readiness Milestone option in Sections 38.4.1(v)(b)-(c) or a Financial Security payment equal to the Network Upgrade costs allocated to Interconnection Customer in the most recent Cluster Study Report minus any amounts already paid pursuant to Section 38.4.1(v)(d). Such additional Financial Security shall be refunded in accordance with Section 48.3.3.

43.2 Scope of Interconnection Facilities Study: The

Interconnection Facilities Study shall be specific to each Interconnection Request and performed on an individual, i.e. non-clustered, basis. The Interconnection Facilities Study shall specify and provide a non-binding estimate of the cost of the

equipment, engineering, procurement and construction work needed to implement the conclusions of the Cluster Study Report (and any associated restudies) in accordance with Good Utility Practice to physically and electrically connect the Interconnection Facilities to the Transmission System. The Interconnection Facilities Study shall also identify the electrical switching configuration of the connection equipment, including, without limitation: the transformer, switchgear, meters, and other station equipment; the nature and estimated cost of any Transmission Provider's Interconnection Facilities and Network Upgrades necessary to accomplish the interconnection; and an estimate of the time required to complete the construction and installation of such facilities. The Facilities Study will also identify any potential control equipment for requests for Interconnection Service that are lower than the Generating Facility Capacity.

43.3 Interconnection Facilities Study Procedures:

Transmission Provider shall coordinate the Interconnection Facilities Study with any Affected System pursuant to Section 38.6 above. Transmission Provider shall utilize existing studies to the extent practicable in performing the Interconnection Facilities Study. Transmission Provider shall use Reasonable Efforts to complete the study and issue a draft Interconnection Facilities Study report to Interconnection Customer within the following number of days after receipt of an executed Interconnection Facilities Study Agreement: ninety (90) Calendar Days, with no more than a +/- 20 percent cost estimate contained in the report; or one hundred eighty (180) Calendar Days, if Interconnection Customer requests a +/- 10 percent cost estimate.

At the request of Interconnection Customer or at any time Transmission Provider determines that it will not meet the required time frame for completing the Interconnection Facilities Study, Transmission Provider shall notify Interconnection Customer as to the schedule status of the Interconnection Facilities Study. If Transmission Provider is unable to complete the Interconnection Facilities Study and issue a draft Interconnection Facilities Study report within the time required, it shall notify Interconnection

Customer and provide an estimated completion date and an explanation of the reasons why additional time is required.

Interconnection Customer may, within thirty (30) Calendar Days after receipt of the draft Interconnection Facilities Study report, provide written comments to Transmission Provider, which Transmission Provider shall include in completing the final Interconnection Facilities Study report. Transmission Provider shall issue the final Interconnection Facilities Study report within fifteen (15) Business Days of receiving Interconnection Customer's comments or promptly upon receiving Interconnection Customer's statement that it will not provide comments. Transmission Provider may reasonably extend such fifteen (15) Business Day period upon notice to Interconnection Customer if Interconnection Customer's comments require Transmission Provider to perform additional analyses or make other significant modifications prior to the issuance of the final Interconnection Facilities Study Report. Upon request, Transmission Provider shall provide Interconnection Customer supporting documentation, workpapers, and databases or data developed in the preparation of the Interconnection Facilities Study, subject to confidentiality arrangements consistent with Section 48.1.

43.4 Meeting with Transmission Provider: Within ten (10) Business Days of providing a draft Interconnection Facilities Study report to Interconnection Customer, Transmission Provider and Interconnection Customer shall meet to discuss the results of the Interconnection Facilities Study.

43.5 Re-Study: If Re-Study of the Interconnection Facilities Study, or Facilities Study for a Small Generating Facility performed under Section 51.5, is required due to a higher or equal priority queued project dropping out of the queue or a modification of a higher queued project pursuant to Section 39.4, Transmission Provider shall so notify Interconnection Customer in writing. Transmission Provider shall make Reasonable Efforts to ensure such Re-Study shall take no longer than sixty (60) Calendar Days from the date of notice. Re-Studies that require rerunning the

Cluster Study analysis may take longer than sixty days. Except as provided in Section 38.7 in the case of withdrawing Interconnection Customers, any cost of Re-Study shall be borne by the Interconnection Customer being re-studied.

IV. LARGE GENERATION INTERCONNECTION SERVICE

44 Engineering & Procurement ("E&P") Agreement

Prior to executing an LGIA, an Interconnection Customer may, in order to advance the implementation of its interconnection, request and Transmission Provider shall offer the Interconnection Customer, an E&P Agreement that authorizes Transmission Provider to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection. However, Transmission Provider shall not be obligated to offer an E&P Agreement if Interconnection Customer is in Dispute Resolution as a result of an allegation that Interconnection Customer has failed to meet any milestones or comply with any prerequisites specified in other parts of the LGIP. The E&P Agreement is an optional procedure and it will not alter the Interconnection Customer's Queue Position or In-Service Date. The E&P Agreement shall provide for Interconnection Customer to pay the cost of all activities authorized by Interconnection Customer and to make advance payments or provide other satisfactory security for such costs.

Interconnection Customer shall pay the cost of such authorized activities and any cancellation costs for equipment that is already ordered for its interconnection, which cannot be mitigated as hereafter described, whether or not such items or equipment later become unnecessary. If Interconnection Customer withdraws from the Cluster or either Party terminates the E&P Agreement, to the extent the equipment ordered can be canceled under reasonable terms, Interconnection Customer shall be obligated to pay the associated cancellation costs. To the extent that the equipment cannot be reasonably canceled, Transmission Provider may elect: (i) to take title to the equipment, in which event Transmission Provider shall refund Interconnection Customer any amounts paid by Interconnection Customer for such equipment and shall pay the cost of delivery of such equipment, or (ii) to transfer title to and deliver such equipment to Interconnection Customer, in which event Interconnection Customer shall pay any unpaid balance and cost of delivery of such equipment.

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IV. LARGE GENERATION INTERCONNECTION SERVICE

46 Standard Large Generator Interconnection Agreement (LGIA)

46.1 Tender: Interconnection Customer shall tender comments on the draft Interconnection Facilities Study Report within thirty (30) Calendar Days of receipt of the report. Within thirty (30) Calendar Days after the comments are submitted or after the Interconnection Customer notifies Transmission Provider that it will not provide comments, Transmission Provider shall tender a draft LGIA, together with draft appendices. The draft LGIA shall be in the form of Transmission Provider's FERC-approved standard form LGIA, which is in Appendix 6. Interconnection Customer shall execute and return the completed draft appendices within thirty (30) Calendar Days, unless the (60) Calendar Day negotiation period under Section 46.2 has commenced.

46.2 Negotiation: Notwithstanding Section 46.1, at the request of Interconnection Customer Transmission Provider shall begin negotiations with Interconnection Customer concerning the appendices to the LGIA at any time after Interconnection Customer executes the Interconnection Facilities Study Agreement. Transmission Provider and Interconnection Customer shall negotiate concerning any disputed provisions of the appendices to the draft LGIA for not more than sixty (60) Calendar Days after tender of the final Interconnection Facilities Study Report. If Interconnection Customer determines that negotiations are at an impasse, it may request termination of the negotiations at any time after tender of the draft LGIA pursuant to Section 46.1 and request submission of the unexecuted LGIA with FERC or initiate Dispute Resolution procedures pursuant to Section 48.5. If Interconnection Customer requests termination of the negotiations, but within sixty (60) Calendar Days thereafter fails to request either the filing of the unexecuted LGIA or initiate Dispute Resolution, it shall be deemed to have withdrawn its Interconnection Request. Unless otherwise agreed by the Parties, if

Interconnection Customer has not executed the LGIA, requested filing of an unexecuted LGIA, or initiated Dispute Resolution procedures pursuant to Section 48.5 within sixty (60) Calendar Days of tender of draft LGIA, it shall be deemed to have withdrawn its Interconnection Request. Transmission Provider shall provide to Interconnection Customer a final LGIA within fifteen (15) Business Days after the completion of the negotiation process.

46.3 Execution and Filing: Within fifteen (15) Business Days after receipt of the final LGIA, Interconnection Customer shall provide Transmission Provider with (i) demonstration of continued Site Control pursuant to Section 38.4.1(iii)(a); and (ii) continued proof of meeting a Readiness Milestone Option in Section 38.4.1(v)(b) or Section 38.4.1(v)(c), unless Interconnection Customer paid a deposit as provided in Section 38.4.1(v)(d) and associated Network Upgrade costs pursuant to Section 43.1(c). At the same time, Interconnection Customer also shall provide reasonable evidence that one or more of the following milestones in the development of the Large Generating Facility, at Interconnection Customer election, has been achieved: (i) the execution of a contract for the supply or transportation of fuel to the Large Generating Facility ; (ii) the execution of a contract for the supply of cooling water to the Large Generating Facility; (iii) execution of a contract for the engineering for, procurement of major equipment for, or construction of, the Large Generating Facility; (iv) execution of a contract (or comparable evidence) for the sale of electric energy or capacity from the Large Generating Facility; or (v) application for an air, water, or land use permit.

Unless otherwise agreed by the Parties, within sixty (60) Calendar Days after receipt of the final LGIA, Interconnection Customer shall either: (i) execute two originals of the tendered LGIA and return them to Transmission Provider; or (ii) request in writing that Transmission Provider file with FERC an LGIA in unexecuted form. As soon as practicable, but not later than ten (10) Business Days after receiving either the two executed originals of the tendered LGIA (if it does not conform with a FERC-approved standard form of interconnection agreement) or the request to file an

unexecuted LGIA, Transmission Provider shall file the LGIA with FERC, together with its explanation of any matters as to which Interconnection Customer and Transmission Provider disagree and support for the costs that Transmission Provider proposes to charge to Interconnection Customer under the LGIA. An unexecuted LGIA should contain terms and conditions deemed appropriate by Transmission Provider for the Interconnection Request. If the Parties agree to proceed with design, procurement, and construction of facilities and upgrades under the agreed-upon terms of the unexecuted LGIA, they may proceed pending FERC action.

46.4 Commencement of Interconnection Activities: If Interconnection Customer executes the final LGIA, Transmission Provider and Interconnection Customer shall perform their respective obligations in accordance with the terms of the LGIA, subject to modification by FERC. Upon submission of an unexecuted LGIA, Interconnection Customer and Transmission Provider shall promptly comply with the unexecuted LGIA, subject to modification by FERC.

IV. LARGE GENERATION INTERCONNECTION SERVICE

47 Construction of Transmission Provider's Interconnection Facilities and Network Upgrades

47.1 Schedule: Transmission Provider and Interconnection Customer shall negotiate in good faith concerning a schedule for the construction of Transmission Provider's Interconnection Facilities and the Network Upgrades.

47.2 Construction Sequencing:

47.2.1 General.

In general, the In-Service Date of an Interconnection Customer seeking interconnection to the Transmission System will determine the sequence of construction of Network Upgrades. Construction sequencing may also apply to shared Transmission Provider's Interconnection Facilities in a similar manner as described below for Network Upgrades.

47.2.2 Advance Construction of Network Upgrades that are an Obligation of an Entity other than Interconnection Customer.

An Interconnection Customer with an LGIA, in order to maintain its In-Service Date, may request that Transmission Provider advance to the extent necessary the completion of Network Upgrades that: (i) were assumed in the Interconnection Studies for such Interconnection Customer, (ii) are necessary to support such In-Service Date, and (iii) would otherwise not be completed, pursuant to a contractual obligation of an entity other than Interconnection Customer that is seeking interconnection to the Transmission System, in time to support such In-Service Date. Upon such request, Transmission Provider will use Reasonable Efforts to advance the construction of such Network Upgrades to accommodate such request; provided that Interconnection Customer

commits to pay Transmission Provider: (i) any associated expediting costs and (ii) the cost of such Network Upgrades. Transmission Provider will refund to Interconnection Customer both the expediting costs and the cost of Network Upgrades, in accordance with Article 11.4 of the LGIA. Consequently, the entity with a contractual obligation to construct such Network Upgrades shall be obligated to pay only that portion of the costs of the Network Upgrades that Transmission Provider has not refunded to Interconnection Customer. Payment by that entity shall be due on the date that it would have been due had there been no request for advance construction. Transmission Provider shall forward to Interconnection Customer the amount paid by the entity with a contractual obligation to construct the Network Upgrades as payment in full for the outstanding balance owed to Interconnection Customer. Transmission Provider then shall refund to that entity the amount that it paid for the Network Upgrades, in accordance with Article 11.4 of the LGIA.

47.2.3 Advancing Construction of Network Upgrades that are Part of an Expansion Plan of the Transmission Provider.

An Interconnection Customer with an LGIA, in order to maintain its In-Service Date, may request that Transmission Provider advance to the extent necessary the completion of Network Upgrades that: (i) are necessary to support such In-Service Date and (ii) would otherwise not be completed, pursuant to an expansion plan of Transmission Provider, in time to support such In-Service Date. Upon such request, Transmission Provider will use Reasonable Efforts to advance the construction of such Network Upgrades to accommodate such request; provided that Interconnection Customer commits to pay Transmission Provider any associated expediting costs. Interconnection Customer shall be entitled to transmission credits, if any, for any expediting costs paid.

47.2.4 Amended Interconnection System Impact Study.

If applicable, an interconnection system impact study will be amended to determine the facilities necessary to support the requested In-Service Date. This amended study will include those transmission and Large Generating Facilities that are expected to be in service on or before the requested In-Service Date.

IV. LARGE GENERATION INTERCONNECTION SERVICE

48 Miscellaneous

48.1 Confidentiality: Confidential Information shall include, without limitation, all information relating to a Party's technology, research and development, business affairs, and pricing, and any information supplied by either of the Parties to the other prior to the execution of an LGIA.

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Party receiving the information that the information is confidential.

If requested by either Party, the other Party shall provide in writing, the basis for asserting that the information referred to in this Article warrants confidential treatment, and the requesting Party may disclose such writing to the appropriate Governmental Authority. Each Party shall be responsible for the costs associated with affording confidential treatment to its information.

48.1.1 Scope.

Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a result of a disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (4) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (5) is, or becomes, publicly

known, through no wrongful act or omission of the receiving Party or Breach of the LGIA; or (6) is required, in accordance with Section 48.1.6, Order of Disclosure, to be disclosed by any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under the LGIA. Information designated as Confidential Information will no longer be deemed confidential if the Party that designated the information as confidential notifies the other Party that it no longer is confidential.

48.1.2 Release of Confidential Information.

Neither Party shall release or disclose Confidential Information to any other person, except to its Affiliates (limited by the Standards of Conduct requirements), employees, consultants, or to parties who may be or considering providing financing to or equity participation with Interconnection Customer, or to potential purchasers or assignees of Interconnection Customer, on a need-to-know basis in connection with these procedures, unless such person has first been advised of the confidentiality provisions of this Section 48.1 and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Section 48.1.

48.1.3 Rights.

Each Party retains all rights, title, and interest in the Confidential Information that each Party discloses to the other Party. The disclosure by each Party to the other Party of Confidential Information shall not be deemed a waiver by either Party or any other person or entity of the right to protect the Confidential Information from public disclosure.

48.1.4 No Warranties.

By providing Confidential Information, neither Party makes any warranties or representations as to its accuracy or completeness. In addition, by supplying Confidential Information, neither Party obligates itself to provide any particular information or Confidential Information to the other Party nor to enter into any further agreements or proceed with any other relationship or joint venture.

48.1.5 Standard of Care.

Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to the other Party under these procedures or its regulatory requirements.

48.1.6 Order of Disclosure.

If a court or a Government Authority or entity with the right, power, and apparent authority to do so requests or requires either Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Party with prompt notice of such request(s) or requirement(s) so that the other Party may seek an appropriate protective order or waive compliance with the terms of the LGIA. Notwithstanding the absence of a protective order or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party will use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

48.1.7 Remedies.

The Parties agree that monetary damages would be inadequate to compensate a Party for the other Party's Breach of its obligations under this Section 48.1. Each Party accordingly agrees that the other Party shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party Breaches or threatens to Breach its obligations under this Section 48.1, which equitable relief shall be granted without bond or proof of damages, and the receiving Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the Breach of this Section 48.1, but shall be in addition to all other remedies available at law or in equity. The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for indirect, incidental, or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Section 48.1.

48.1.8 Disclosure to FERC, its Staff, or a State.

Notwithstanding anything in this Section 48.1 to the contrary, and pursuant to 18 CFR Section 1b.20, if FERC or its staff, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to the LGIP, the Party shall provide the requested information to FERC or its staff, within the time provided for in the request for information. In providing the information to FERC or its staff, the Party must, consistent with 18 CFR Section 388.112, request that the information be treated as confidential and non-public by FERC and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party prior to the release of the Confidential Information to FERC or its

staff. The Party shall notify the other Party to the LGIA when its is notified by FERC or its staff that a request to release Confidential Information has been received by FERC, at which time either of the Parties may respond before such information would be made public, pursuant to 18 CFR Section 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner, consistent with applicable state rules and regulations.

48.1.9 Subject to the exception in Section 48.1.8, any information that a Party claims is competitively sensitive, commercial or financial information ("Confidential Information") shall not be disclosed by the other Party to any person not employed or retained by the other Party, except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the other Party, such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this LGIP or as a transmission service provider or a Control Area operator including disclosing the Confidential Information to an RTO or ISO or to a subregional, regional or national reliability organization or planning group. The Party asserting confidentiality shall notify the other Party in writing of the information it claims is confidential. Prior to any disclosures of the other Party's Confidential Information under this subparagraph, or if any third party or Governmental Authority makes any request or demand for any of the information described in this subparagraph, the disclosing Party agrees to promptly notify the other Party in writing and agrees to assert confidentiality and cooperate with the other Party in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

48.1.10 This provision shall not apply to any information that was or is hereafter in the public domain (except as a result of a Breach of this provision).

48.1.11 Transmission Provider shall, at Interconnection Customer's election, destroy, in a confidential manner, or return the Confidential Information provided at the time of Confidential Information is no longer needed.

48.2 Delegation of Responsibility: Transmission Provider may use the services of subcontractors as it deems appropriate to perform its obligations under this LGIP. Transmission Provider shall remain primarily liable to Interconnection Customer for the performance of such subcontractors and compliance with its obligations of this LGIP. The subcontractor shall keep all information provided confidential and shall use such information solely for the performance of such obligation for which it was provided and no other purpose.

48.3 Obligation for Study Costs and Withdrawal Penalties; Refunds:

48.3.1 Transmission Provider shall charge and Interconnection Customer shall pay the actual costs of the Interconnection Studies (or actual allocated costs, in the case of Cluster Studies pursuant to Section 39.2.2) and any Withdrawal Penalty, as applicable. Any difference between the study deposit and the actual cost of the applicable Interconnection Study shall be paid by or refunded, except as otherwise provided herein, to Interconnection Customer or offset against the cost of any future Interconnection Studies associated with the applicable Interconnection Request prior to beginning of any such future Interconnection Studies. If an Interconnection Customer's study deposit paid pursuant to Section 38.1 is greater than the Interconnection Customer's share of actual Cluster Study costs (including applicable restudies), any excess amounts shall be applied to the Interconnection Customer's individual

Interconnection Facility Study costs, or refunded to the Interconnection Customer following Transmission Provider's issuance of the Interconnection Customer's final Interconnection Facilities Study report. Interconnection Customer shall be responsible for any Withdrawal Penalties pursuant to Section 38.7 in the event of withdrawal.

- 48.3.2** In the event of Interconnection Customer's Withdrawal pursuant to Section 38.7, Transmission provider shall refund to Interconnection Customer any of the refundable portion of the following charges: (a) any study deposit paid pursuant to Section 38.1; (b) \$3,000 per MW deposit paid pursuant to Section 38.4.1(v)(d); (c) any Site Control-related deposit paid pursuant to Section 38.4.1(iii); and (d) additional Financial Security payment for Network Upgrade costs paid pursuant to Section 43.1(c). Such refundable portion shall be any amount that exceeds Interconnection Customer's share of the costs that Transmission Provider has incurred (such as study costs) including interest calculated in accordance with Section 35.19a(a)(2) of FERC's regulations, and that exceed any Withdrawal Penalty imposed, if applicable.
- 48.3.3** Additional Financial Security paid by Interconnection Customer pursuant to Section 43.1(c) shall be refunded in whole or in part on the earlier of: (i) Interconnection Customer is able to demonstrate a Readiness Milestone Option in Section 38.4.1(v)(b) or Section 38.4.1(v)(c); (ii) the Interconnection Request is withdrawn from the queue and pays any required Withdrawal Penalties; (iii) before achieving Commercial Operation the Interconnection Customer terminates its executed LGIA pursuant to LGIA Article 2.3 or applicable termination procedures and pays any required Withdrawal Penalties; or (iv) Interconnection Customer achieves Commercial Operation. Any partial or full refund pursuant to this Section shall include interest (if applicable) calculated in accordance with

Section 35.19a(a)(2) of FERC's regulations, and that exceed any Withdrawal Penalty imposed, and it shall also be subject to the Network Upgrade crediting provisions of LGIA Article 11.4.

48.3.4 Any invoices for Interconnection Studies shall include a detailed and itemized accounting of the cost of each Interconnection Study as well as the Withdrawal Penalty, if applicable. Interconnection Customer shall pay any such undisputed costs within thirty (30) Calendar Days of receipt of an invoice therefore. Transmission Provider shall not be obligated to perform or continue to perform any studies unless Interconnection Customer has paid all undisputed amounts in compliance herewith. If invoices are not paid within thirty (30) Calendar Days of receipt of an invoice, Transmission Provider shall draw upon any security and deposits provided under this LGIP to settle all accounts, which shall include any offsets of amounts due and owing by Transmission Provider. After the final invoice is paid and all accounts are settled, Transmission Provider shall refund all remaining security and deposits.

48.4 Third Parties Conducting Studies: If (i) at the time of the signing of an Interconnection Study Agreement there is disagreement as to the estimated time to complete an Interconnection Study, (ii) Interconnection Customer receives notice pursuant to Sections 41.1.4, 42.5(e) or 43.3 that Transmission Provider will not complete an Interconnection Study within the applicable timeframe for such Interconnection Study, or (iii) Interconnection Customer receives neither the Interconnection Study nor a notice under Sections 41.1.4, 42.5(e) or 43.3 within the applicable timeframe for such Interconnection Study, then Interconnection Customer may require Transmission Provider to utilize a third party consultant reasonably acceptable to Interconnection Customer and Transmission Provider to perform such Interconnection Study under the direction of Transmission Provider. At other times, Transmission Provider may also utilize a third party consultant to perform such Interconnection Study, either in response

to a general request of Interconnection Customer, or on its own volition.

In all cases, use of a third party consultant shall be in accord with Article 26 of the LGIA (Subcontractors) and limited to situations where Transmission Provider determines that doing so will help maintain or accelerate the study process for Interconnection Customer's pending Interconnection Request and not interfere with Transmission Provider's progress on Interconnection Studies for other pending Interconnection Requests. In cases where Interconnection Customer requests use of a third party consultant to perform such Interconnection Study, Interconnection Customer and Transmission Provider shall negotiate all of the pertinent terms and conditions, including reimbursement arrangements and the estimated study completion date and study review deadline. Transmission Provider shall convey all workpapers, data bases, study results and all other supporting documentation prepared to date with respect to the Interconnection Request as soon as practicable upon Interconnection Customer's request subject to the confidentiality provision in Section 48.1. In any case, such third party contract may be entered into with either Interconnection Customer or Transmission Provider at Transmission Provider's discretion. In the case of (iii) Interconnection Customer maintains its right to submit a claim to Dispute Resolution to recover the costs of such third party study. Such third party consultant shall be required to comply with this LGIP, Article 26 of the LGIA (Subcontractors), and the relevant Tariff procedures and protocols as would apply if Transmission Provider were to conduct the Interconnection Study and shall use the information provided to it solely for purposes of performing such services and for no other purposes. Transmission Provider shall cooperate with such third party consultant and Interconnection Customer to complete and issue the Interconnection Study in the shortest reasonable time.

48.5 Disputes:

48.5.1 Submission.

In the event either Party has a dispute, or asserts a claim, that arises out of or in connection with the LGIA, the LGIP, or their performance, such Party (the "disputing Party") shall provide the other Party with written notice of the dispute or claim ("Notice of Dispute"). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Party. In the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within thirty (30) Calendar Days of the other Party's receipt of the Notice of Dispute, such claim or dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such claim or dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of this LGIA.

48.5.2 External Arbitration Procedures.

Any arbitration initiated under these procedures shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) Calendar Days of the submission of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. The two arbitrators so chosen shall within twenty (20) Calendar Days select a third arbitrator to chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard

and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("Arbitration Rules") and any applicable FERC regulations or RTO rules; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Section 48, the terms of this Section 48 shall prevail.

48.5.3 Arbitration Decisions.

Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision within ninety (90) Calendar Days of appointment and shall notify the Parties in writing of such decision and the reasons therefore. The arbitrator(s) shall be authorized only to interpret and apply the provisions of the LGIA and LGIP and shall have no power to modify or change any provision of the LGIA and LGIP in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed with FERC if it affects jurisdictional rates, terms and conditions of service, Interconnection Facilities, or Network Upgrades.

48.5.4 Costs.

Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three member panel and one half of the cost of the third arbitrator chosen; or (2) one half the cost of the single arbitrator jointly chosen by the Parties.

48.5.5 Non-binding dispute resolution procedures. If a Party has submitted a Notice of Dispute pursuant to Section 48.5.1, and the Parties are unable to resolve the claim or dispute through unassisted or assisted negotiations within the thirty (30) Calendar Days provided in that Section, and the Parties cannot reach mutual agreement to pursue the Section 48.5 arbitration process, a Party may request that Transmission Provider engage in Non-binding Dispute Resolution pursuant to this Section by providing written notice to Transmission Provider ("Request for Non-binding Dispute Resolution"). Conversely, either Party may file a Request for Non-binding Dispute Resolution pursuant to this Section without first seeking mutual agreement to pursue the Section 48.5 arbitration process. The process in Section 48.5.5 shall serve as an alternative to, and not a replacement of, the Section 48.5 arbitration process. Pursuant to this process, a Transmission Provider must within 30 days of receipt of the Request for Non-binding Dispute Resolution appoint a neutral decision-maker that is an independent subcontractor that shall not have any current or past substantial business or financial relationships with either Party. Unless otherwise agreed by the Parties, the decision-maker shall render a decision within sixty (60) Calendar Days of appointment and shall notify the Parties in writing of such decision and reasons therefore. This decision-maker shall be authorized only to interpret and apply the provisions of the LGIP and LGIA and shall have no power to modify or change any provision of the LGIP and LGIA in any manner. The result reached in this process is not binding, but, unless otherwise agreed, the Parties may cite the record and decision in the non-binding dispute resolution process in future dispute resolution processes, including in a Section 48.5 arbitration, or in a Federal Power Act Section 206 complaint. Each Party shall be responsible for its own costs incurred during the process and the cost of the decision-maker shall be divided equally among each Party to the dispute.

48.6 Local Furnishing Bonds:

48.6.1 Transmission Providers That Own Facilities Financed by Local Furnishing Bonds.

This provision is applicable only to a Transmission Provider that has financed facilities for the local furnishing of electric energy with tax-exempt bonds, as described in Section 142(f) of the Internal Revenue Code ("local furnishing bonds"). Notwithstanding any other provision of this LGIA and LGIP, Transmission Provider shall not be required to provide Interconnection Service to Interconnection Customer pursuant to this LGIA and LGIP if the provision of such Transmission Service would jeopardize the tax-exempt status of any local furnishing bond(s) used to finance Transmission Provider's facilities that would be used in providing such Interconnection Service.

48.6.2 Alternative Procedures for Requesting Interconnection Service.

If Transmission Provider determines that the provision of Interconnection Service requested by Interconnection Customer would jeopardize the tax-exempt status of any local furnishing bond(s) used to finance its facilities that would be used in providing such Interconnection Service, it shall advise the Interconnection Customer within thirty (30) Calendar Days of receipt of the Interconnection Request.

Interconnection Customer thereafter may renew its request for interconnection using the process specified in Article 5.2(ii) of the Transmission Provider's Tariff.

V. SMALL GENERATION INTERCONNECTION SERVICE

Generator Interconnection Procedures Applicable to Generating Facilities No Larger than 20 MW

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Appendix 1 - Glossary of Terms (Attachment O of the Tariff)

Appendix 2 - Small Generator Interconnection Request (Attachment O of the Tariff)

Appendix 3 - Certification Codes and Standards (Attachment O of the Tariff)

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Appendix 5 - Application, Procedures, and Terms and Conditions for Interconnecting a Certified Inverter-Based Small Generating Facility No Larger than 10 kW ("10 kW Inverter Process") (Attachment O of the Tariff)

Appendix 6 - Reserved

Appendix 7 - Reserved

Appendix 8 - Facilities Study Agreement (Attachment O of the Tariff)

Appendix 9 - Small Generator Interconnection Agreement (Attachment O of the Tariff)

V. **SMALL GENERATION INTERCONNECTION SERVICE**

49 **Application for Small Generating Facility Interconnections**

49.1 Applicability:

49.1.1 A request to interconnect a certified Small Generating Facility (See Appendices 3 and 4 to Attachment O of the Tariff for description of certification criteria) to the Transmission Provider's Distribution System shall be evaluated under the section 50 Fast Track Process if the eligibility requirements of Section 50.1 are met. A request to interconnect a certified inverter-based Small Generating Facility no larger than 10 kilowatts (kW) shall be evaluated under the Appendix 5 to Attachment O of the Tariff 10 kW Inverter Process. A request to interconnect a Small Generating Facility no larger than 20 megawatts (MW) that does not meet the eligibility requirements of section 50.1 or does not pass the Fast Track Process or the 10 kW Inverter Process, shall be evaluated under the section 51 Study Process. If the Interconnection Customer wishes to interconnect its Small Generating Facility using Network Resource Interconnection Service, it must do so under the Standard Large Generator Interconnection Procedures and execute the Standard Large Generator Interconnection Agreement. Small Generating Facilities that are subject to the study process in Section 51 shall be required to participate in Transmission Provider's Cluster process pursuant to Section 42, except as otherwise provided in Section 51.

49.1.2 Capitalized terms used herein shall have the meanings specified in the Glossary of Terms in Appendix 1 to Attachment O of the Tariff or the body of these procedures.

49.1.3 Except as otherwise provided in Attachment W, neither these procedures nor the requirements included hereunder apply to Small Generating Facilities interconnected or approved for

interconnection prior to 60 Business Days after the effective date of these procedures.

49.1.4 Prior to submitting its Interconnection Request (Appendix 2 to Attachment O of the Tariff), the Interconnection Customer may ask the Transmission Provider's interconnection contact employee or office whether the proposed interconnection is subject to these procedures. The Transmission Provider shall respond within 15 Business Days.

49.1.5 Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. The Federal Energy Regulatory Commission expects all Transmission Providers, market participants, and Interconnection Customers interconnected with electric systems to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and best practice recommendations from the electric reliability authority. All public utilities are expected to meet basic standards for electric system infrastructure and operational security, including physical, operational, and cyber-security practices.

49.1.6 References in these procedures to interconnection agreement are to the Small Generator Interconnection Agreement (SGIA).

49.2 Pre-Application:

49.2.1 The Transmission Provider shall designate an employee or office from which information on the application process and on an Affected System can be obtained through informal requests from the Interconnection Customer presenting a proposed project for a specific site. The name, telephone number, and e-mail address of such contact employee or office shall be made available on the Transmission Provider's Internet web site. Electric system information provided to the Interconnection Customer should include relevant system

studies, interconnection studies, and other materials useful to an understanding of an interconnection at a particular point on the Transmission Provider's Transmission System, to the extent such provision does not violate confidentiality provisions of prior agreements or critical infrastructure requirements. The Transmission Provider shall comply with reasonable requests for such information.

49.2.2 In addition to the information described in section 49.2.1, which may be provided in response to an informal request, an Interconnection Customer may submit a formal written request form along with a non-refundable fee of \$300 for a pre-application report on a proposed project at a specific site. The Transmission Provider shall provide the pre-application data described in section 49.2.3 to the Interconnection Customer within 20 Business Days of receipt of the completed request form and payment of the \$300 fee. The pre-application report produced by the Transmission Provider is non-binding, does not confer any rights, and the Interconnection Customer must still successfully apply to interconnect to the Transmission Provider's system. The written pre-application report request form shall include the information in sections 49.2.2.1 through 49.2.2.8 below to clearly and sufficiently identify the location of the proposed Point of Interconnection.

- 49.2.2.1** Project contact information, including name, address, phone number, and email address.
- 49.2.2.2** Project location (street address with nearby cross streets and town)
- 49.2.2.3** Meter number, pole number, or other equivalent information identifying proposed Point of Interconnection, if available.
- 49.2.2.4** Generator Type (e.g., solar, wind,

combined heat and power, etc.)

- 49.2.2.5 Size (alternating current kW)
- 49.2.2.6 Single or three phase generator configuration
- 49.2.2.7 Stand-alone generator (no onsite load, not including station service - Yes or No?)
- 49.2.2.8 Is new service requested? Yes or No? If there is existing service, include the customer account number, site minimum and maximum current or proposed electric loads in kW (if available) and specify if the load is expected to change.

49.2.3 Using the information provided in the pre-application report request form in section 49.2.2, the Transmission Provider will identify the substation/area bus, bank or circuit likely to serve the proposed Point of Interconnection. This selection by the Transmission Provider does not necessarily indicate, after application of the screens and/or study, that this would be the circuit the project ultimately connects to. The Interconnection Customer must request additional pre-application reports if information about multiple Points of Interconnection is requested. Subject to section 49.2.4, the pre-application report will include the following information:

- 49.2.3.1 Total capacity (in MW) of substation/area bus, bank or circuit based on normal or operating ratings likely to serve the proposed Point of Interconnection.
- 49.2.3.2 Existing aggregate generation capacity (in MW) interconnected to a substation/area bus, bank or circuit (i.e., amount of

generation online) likely to serve the proposed Point of Interconnection.

- 49.2.3.3** Aggregate queued generation capacity (in MW) for a substation/area bus, bank or circuit (i.e., amount of generation in the queue) likely to serve the proposed Point of Interconnection.
- 49.2.3.4** Available capacity (in MW) of substation/area bus or bank and circuit likely to serve the proposed Point of Interconnection (i.e., total capacity less the sum of existing aggregate generation capacity and aggregate queued generation capacity).
- 49.2.3.5** Substation nominal distribution voltage and/or transmission nominal voltage if applicable.
- 49.2.3.6** Nominal distribution circuit voltage at the proposed Point of Interconnection.
- 49.2.3.7** Approximate circuit distance between the proposed Point of Interconnection and the substation.
- 49.2.3.8** Relevant line section(s) actual or estimated peak load and minimum load data, including daytime minimum load as described in section 50.4.4.1.1 below and absolute minimum load, when available.
- 49.2.3.9** Number and rating of protective devices and number and type (standard, bi-directional) of voltage regulating devices between the proposed Point of

Interconnection and the substation/area. Identify whether the substation has a load tap changer.

49.2.3.10 Number of phases available at the proposed Point of Interconnection. If a single phase, distance from the three-phase circuit.

49.2.3.11 Limiting conductor ratings from the proposed Point of Interconnection to the distribution substation.

49.2.3.12 Whether the Point of Interconnection is located on a spot network, grid network, or radial supply.

49.2.3.13 Based on the proposed Point of Interconnection, existing or known constraints such as, but not limited to, electrical dependencies at that location, short circuit interrupting capacity issues, power quality or stability issues on the circuit, capacity constraints, or secondary networks.

49.2.4 The pre-application report need only include existing data. A pre-application report request does not obligate the Transmission Provider to conduct a study or other analysis of the proposed generator in the event that data is not readily available. If the Transmission Provider cannot complete all or some of a pre-application report due to lack of available data, the Transmission Provider shall provide the Interconnection Customer with a pre-application report that includes the data that is available. The provision of information on "available capacity" pursuant to section 49.2.3.4 does not imply that an interconnection up to this level may be completed without impacts since there are many variables studied

as part of the interconnection review process, and data provided in the pre-application report may become outdated at the time of the submission of the complete Interconnection Request. Notwithstanding any of the provisions of this section, the Transmission Provider shall, in good faith, include data in the pre-application report that represents the best available information at the time of reporting.

49.3 Interconnection Request

The Interconnection Customer shall submit its Interconnection Request to the Transmission Provider, together with the processing fee or deposit specified in the Interconnection Request. The Interconnection Request shall be date- and time-stamped upon receipt. The original date- and time-stamp applied to the Interconnection Request at the time of its original submission shall be accepted as the qualifying date- and time-stamp for the purposes of any timetable in these procedures. The Interconnection Customer shall be notified of receipt by the Transmission Provider within three Business Days of receiving the Interconnection Request. The Transmission Provider shall notify the Interconnection Customer within ten Business Days of the receipt of the Interconnection Request as to whether the Interconnection Request is complete or incomplete. If the Interconnection Request is incomplete, the Transmission Provider shall provide along with the notice that the Interconnection Request is incomplete, a written list detailing all information that must be provided to complete the Interconnection Request, including if Transmission Provider identifies issues with technical data provided by an Interconnection Customer subject to study pursuant to Section 51. The Interconnection Customer will have ten (10) Business Days after receipt of the notice to submit the listed information or to request an extension of time to provide such information, provided that Interconnection Customers subject to study under Section 51 shall provide such additional listed information by no later than the close of the Cluster Request Window.

If the Interconnection Customer does not provide the listed information or a request for an extension of

time within the deadline, the Interconnection Request will be deemed withdrawn. An Interconnection Request will be deemed complete upon submission of the listed information to the Transmission Provider.

49.4 Modification of the Interconnection Request

Any modification to machine data or equipment configuration or to the interconnection site of the Small Generating Facility not agreed to in writing by the Transmission Provider and the Interconnection Customer may be deemed a withdrawal of the Interconnection Request and may require submission of a new Interconnection Request, unless proper notification of each Party by the other and a reasonable time to cure the problems created by the changes are undertaken.

49.5 Site Control

Documentation of site control must be submitted with the Interconnection Request. Site control may be demonstrated through:

- 49.5.1** Ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the Small Generating Facility;
- 49.5.2** An option to purchase or acquire a leasehold site for such purpose; or
- 49.5.3** An exclusivity or other business relationship between the Interconnection Customer and the entity having the right to sell, lease, or grant the Interconnection Customer the right to possess or occupy a site for such purpose.

49.6 Queue Position

The Transmission Provider shall assign a Queue Position based upon the date- and time-stamp of the Interconnection Request. Except as otherwise noted in Section 51, the Queue Position of each Interconnection Request will be used to determine the cost responsibility for the Upgrades necessary to accommodate the interconnection. The Transmission Provider shall maintain a single queue per geographic

region. Except as otherwise noted in Section 51, at the Transmission Provider's option, Interconnection Requests may be studied serially or in clusters pursuant to Sections 42 and 51 of Transmission Provider's OATT.

49.7 Interconnection Requests Submitted Prior to the Effective Date of the SGIP

Nothing in this SGIP affects an Interconnection Customer's Queue Position assigned before the effective date of this SGIP. The Parties agree to complete work on any interconnection study agreement executed prior the effective date of this SGIP in accordance with the terms and conditions of that interconnection study agreement. Notwithstanding the proceeding two sentences, Interconnection Customer with a Transition Request, as defined in Attachment W of Transmission Provider's OATT and subject to the eligibility requirements reflected therein, shall be included in the Transition Cluster Study if the Small Generating Facility (1) is larger than 2 MW but no larger than 20 MW, (2) is not certified, or (3) is certified but did not pass the Fast Track Process or the 10 kW Inverter Process.

V. SMALL GENERATION INTERCONNECTION SERVICE

50 Fast Track Process

50.1 Applicability: The Fast Track Process is available to an Interconnection Customer proposing to interconnect its Small Generating Facility with the Transmission Provider's Distribution System if the Small Generating Facility's capacity does not exceed the size limits identified in the table below. Small Generating Facilities below these limits are eligible for Fast Track review. However, Fast Track eligibility is distinct from the Fast Track Process itself, and eligibility does not imply or indicate that a Small Generating Facility will pass the Fast Track screens in section 50.2.1 below or the Supplemental Review screens in section 50.4.4 below.

Fast Track eligibility is determined based upon the generator type, the size of the generator, voltage of the line and the location of and the type of line at the Point of Interconnection. All Small Generating Facilities connecting to lines greater than 69 kilovolt (kV) are ineligible for the Fast Track Process regardless of size. All synchronous and induction machines must be no larger than 2 MW to be eligible for the Fast Track Process, regardless of location. For certified inverter-based systems, the size limit varies according to the voltage of the line at the proposed Point of Interconnection. Certified inverter-based Small Generating Facilities located within 2.5 electrical circuit miles of a substation and on a mainline (as defined in the table below) are eligible for the Fast Track Process under the higher thresholds according to the table below. In addition to the size threshold, the Interconnection Customer's proposed Small Generating Facility must meet the codes, standards, and certification requirements of Appendices 3 and 4 to Attachment O of the Tariff, or the Transmission Provider has to have reviewed the design or tested the proposed Small Generating Facility and is satisfied that it is safe to operate.

Fast Track Eligibility for Inverter-Based Systems		
Line Voltage	Fast Track Eligibility Regardless of Location	Fast Track Eligibility on a Mainline[1] and ≤2.5 Electrical Circuit Miles from Substation[2]
< 5 kV	≤ 500 kW	≤ 500 kW
≥ 5 kV and <15 kV	≤ 2 MW	≤ 3 MW
≥ 15 kV and <30 kV	≤ 3 MW	≤ 4 MW
≥ 30 kV and ≤ 69 kV	≤ 4 MW	≤ 5 MW

- [1] For purposes of this table, a mainline is the three-phase backbone of a circuit. It will typically constitute lines with wire sizes of 4/0 American wire gauge, 336.4 kcmil, 397.5 kcmil, 477 kcmil and 795 kcmil.
- [2] An Interconnection Customer can determine this information about its proposed interconnection location in advance by requesting a pre-application report pursuant to section 49.2.

50.2 Initial Review: Within 15 Business Days after the Transmission Provider notifies the Interconnection Customer it has received a complete Interconnection Request, the Transmission Provider shall perform an initial review using the screens set forth below, shall notify the Interconnection Customer of the results, and include with the notification copies of the analysis and data underlying the Transmission Provider's determinations under the screens.

50.2.1 Screens

50.2.1.1 The proposed Small Generating Facility's Point of Interconnection must be on a portion of the Transmission Provider's Distribution System that is subject to the Tariff.

50.2.1.2 For interconnection of a proposed Small Generating Facility to a radial distribution circuit, the aggregated generation, including the proposed Small Generating Facility, on the circuit shall not exceed 15 % of the line section annual peak load as most recently measured at the substation. A line section is that portion of a

Transmission Provider's electric system connected to a customer bounded by automatic sectionalizing devices or the end of the distribution line.

- 50.2.1.3** For interconnection of a proposed Small Generating Facility to the load side of spot network protectors, the proposed Small Generating Facility must utilize an inverter-based equipment package and, together with the aggregated other inverter-based generation, shall not exceed the smaller of 5 % of a spot network's maximum load or 50 kW [1].

[1] A spot Network is a type of distribution system found within modern commercial buildings to provide high reliability of service to a single customer. (Standard Handbook for Electrical Engineers, 11th edition, Donald Fink, McGraw Hill Book Company

- 50.2.1.4** The proposed Small Generating Facility, in aggregation with other generation on the distribution circuit, shall not contribute more than 10 % to the distribution circuit's maximum fault current at the point on the high voltage (primary) level nearest the proposed point of change of ownership.

- 50.2.1.5** The proposed Small Generating Facility, in aggregate with other generation on the distribution circuit, shall not cause any distribution protective devices and equipment (including, but not limited to, substation breakers, fuse cutouts, and line reclosers), or Interconnection Customer equipment on the system to exceed 87.5 % of the short circuit interrupting

capability; nor shall the interconnection be proposed for a circuit that already exceeds 87.5 % of the short circuit interrupting capability.

- 50.2.1.6** Using the table below, determine the type of interconnection to a primary distribution line. This screen includes a review of the type of electrical service provided to the Interconnecting Customer, including line configuration and the transformer connection to limit the potential for creating over-voltages on the Transmission Provider's electric power system due to a loss of ground during the operating time of any anti-islanding function.

Primary Distribution Line Type	Type of Interconnection to Primary Distribution Line	Result/Criteria
Three-phase, three wire	3-phase or single phase, phase-to-phase	Pass screen
Three-phase, four wire	Effectively-grounded 3 phase or Single-phase, line-to-neutral	Pass screen

- 50.2.1.7** If the proposed Small Generating Facility is to be interconnected on single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed Small Generating Facility, shall not exceed 20 kW.

- 50.2.1.8** If the proposed Small Generating Facility is single-phase and is to be interconnected on a center tap neutral of a 240 volt service, its addition shall not create an imbalance between the two sides of the 240 volt service of more than 20% of the nameplate rating of the service transformer.

- 50.2.1.9** The Small Generating Facility, in aggregate with other generation interconnected to the transmission side of a substation transformer feeding the circuit where the Small Generating Facility proposes to interconnect shall not exceed 10 MW in an area where there are known, or posted, transient stability limitations to generating units located in the general electrical vicinity (e.g., three or four transmission busses from the point of interconnection).
- 50.2.1.10** No construction of facilities by the Transmission Provider on its own system shall be required to accommodate the Small Generating Facility.
- 50.2.2** If the proposed interconnection passes the screens, the Interconnection Request shall be approved and the Transmission Provider will provide the Interconnection Customer an executable interconnection agreement within five Business Days after the determination.
- 50.2.3** If the proposed interconnection fails the screens, but the Transmission Provider determines that the Small Generating Facility may nevertheless be interconnected consistent with safety, reliability, and power quality standards, the Transmission Provider shall provide the Interconnection Customer an executable interconnection agreement within five Business Days after the determination.
- 50.2.4** If the proposed interconnection fails the screens, but the Transmission Provider does not or cannot determine from the initial review that the Small Generating Facility may nevertheless be interconnected consistent with safety, reliability, and power quality standards unless the Interconnection Customer is willing to consider minor modifications or further study, the Transmission Provider shall

provide the Interconnection Customer with the opportunity to attend a customer options meeting.

50.3 Customer Options Meeting: If the Transmission Provider determines the Interconnection Request cannot be approved without (1) minor modifications at minimal cost, (2) a supplemental study or other additional studies or actions, or (3) incurring significant cost to address safety, reliability, or power quality problems, the Transmission Provider shall notify the Interconnection Customer of that determination within five Business Days after the determination and provide copies of all data and analyses underlying its conclusion. Within ten Business Days of the Transmission Provider's determination, the Transmission Provider shall offer to convene a customer options meeting with the Transmission Provider and Interconnection Customer to review possible Interconnection Customer facility modifications or the screen analysis and related results, to determine what further steps are needed to permit the Small Generating Facility to be connected safely and reliably. At the time of notification of the Transmission Provider's determination, or at the customer options meeting, the Transmission Provider shall:

50.3.1 Offer to perform facility modifications or minor modifications to the Transmission Provider's electric system (e.g., changing meters, fuses, relay settings) and provide a non-binding good faith estimate of the limited cost to make such modifications to the Transmission Provider's electric system. If the Interconnection Customer agrees to pay for the modifications to the Transmission Provider's electric system, the Transmission Provider will provide the Interconnection Customer with an executable interconnection agreement within ten Business Days of the customer options meeting, or

50.3.2 Offer to perform a supplemental review in accordance with section 50.4, and provide a non-binding good faith estimate of the costs of

such review; or

- 50.3.3 Obtain the Interconnection Customer's agreement to continue evaluating the Interconnection Request under the section 51 Study Process.

50.4 Supplemental Review:

- 50.4.1 To accept the offer of a supplemental review, the Interconnection Customer shall agree in writing and submit a deposit for the estimated costs of the supplemental review in the amount of the Transmission Provider's good faith estimate of the costs of such review, both within 15 Business Days of the offer. If the written agreement and deposit have not been received by the Transmission Provider within that timeframe, the Interconnection Request shall continue to be evaluated under the section 51 Study Process unless it is withdrawn by the Interconnection Customer.
- 50.4.2 The Interconnection Customer may specify the order in which the Transmission Provider will complete the screens in section 50.4.4.
- 50.4.3 The Interconnection Customer shall be responsible for the Transmission Provider's actual costs for conducting the supplemental review. The Interconnection Customer must pay any review costs that exceed the deposit within 20 Business Days of receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced costs, the Transmission Provider will return such excess within 20 Business Days of the invoice without interest.
- 50.4.4 Within 30 Business Days following receipt of the deposit for a supplemental review, the Transmission Provider shall (1) perform a supplemental review using the screens set forth below; (2) notify in writing the Interconnection Customer of the results; and (3) include with the notification copies of the analysis and data underlying the Transmission Provider's determinations under the screens. Unless the Interconnection Customer provided

instructions for how to respond to the failure of any of the supplemental review screens below at the time the Interconnection Customer accepted the offer of supplemental review, the Transmission Provider shall notify the Interconnection Customer following the failure of any of the screens, or if it is unable to perform the screen in section 50.4.4.1, within two Business Days of making such determination to obtain the Interconnection Customer's permission to: (1) continue evaluating the proposed interconnection under this section 50.4.4; (2) terminate the supplemental review and continue evaluating the Small Generating Facility under section 51; or (3) terminate the supplemental review upon withdrawal of the Interconnection Request by the Interconnection Customer.

50.4.4.1 Minimum Load Screen: Where 12 months of line section minimum load data (including onsite load but not station service load served by the proposed Small Generating Facility) are available, can be calculated, can be estimated from existing data, or determined from a power flow model, the aggregate Generating Facility capacity on the line section is less than 100% of the minimum load for all line sections bounded by automatic sectionalizing devices upstream of the proposed Small Generating Facility. If minimum load data is not available, or cannot be calculated, estimated or determined, the Transmission Provider shall include the reason(s) that it is unable to calculate, estimate or determine minimum load in its supplemental review results notification under section 50.4.4.

50.4.4.1.1 The type of generation used by the proposed Small Generating Facility will be taken into account when

calculating, estimating, or determining circuit or line section minimum load relevant for the application of screen 50.4.4.1. Solar photovoltaic (PV) generation systems with no battery storage use daytime minimum load (i.e. 10 a.m. to 4 p.m. for fixed panel systems and 8 a.m. to 6 p.m. for PV systems utilizing tracking systems), while all other generation uses absolute minimum load.

50.4.4.1.2 When this screen is being applied to a Small Generating Facility that serves some station service load, only the net injection into the Transmission Provider's electric system will be considered as part of the aggregate generation.

50.4.4.1.3 Transmission Provider will not consider as part of the aggregate generation for purposes of this screen generating facility capacity known to be already reflected in the minimum load data.

50.4.4.2 Voltage and Power Quality Screen: In aggregate with existing generation on the line section: (1) the voltage regulation on the line section can be maintained in compliance with relevant requirements under all system conditions; (2) the voltage fluctuation is within acceptable limits as defined by Institute of Electrical and Electronics Engineers (IEEE) Standard 1453, or utility practice similar to IEEE Standard 1453; and (3) the harmonic levels meet IEEE Standard 519 limits.

50.4.4.3 Safety and Reliability Screen: The location of the proposed Small Generating Facility and the aggregate generation capacity on the line section do not create impacts to safety or reliability that cannot be adequately addressed without application of the Study Process. The Transmission Provider shall give due consideration to the following and other factors in determining potential impacts to safety and reliability in applying this screen.

50.4.4.3.1 Whether the line section has significant minimum loading levels dominated by a small number of customers (e.g., several large commercial customers).

50.4.4.3.2 Whether the loading along the line section is uniform or even.

50.4.4.3.3 Whether the proposed Small Generating Facility is located in close proximity to the substation (i.e., less than 2.5 electrical circuit miles), and whether the line section from the substation to the Point of Interconnection is a Mainline rated for normal and emergency ampacity.

50.4.4.3.4 Whether the proposed Small Generating Facility incorporates a time delay function to prevent reconnection of the generator to the system until system voltage and frequency are within normal limits for a prescribed time.

50.4.4.3.5 Whether operational flexibility is reduced by the proposed Small Generating Facility, such that transfer of the line section(s) of the Small Generating Facility to a neighboring distribution circuit/substation may trigger overloads or voltage issues.

50.4.4.3.6 Whether the proposed Small Generating Facility employs equipment or systems certified by a recognized standards organization to address technical issues such as, but not limited to, islanding, reverse power flow, or voltage quality.

50.4.5 If the proposed interconnection passes the supplemental screens in sections 50.4.4.1, 50.4.4.2, and 50.4.4.3 above, the Interconnection Request shall be approved and the Transmission Provider will provide the Interconnection Customer with an executable interconnection agreement within the timeframes established in sections 50.4.5.1 and 50.4.5.2 below. If the proposed interconnection fails any of the supplemental review screens and the Interconnection Customer does not withdraw its Interconnection Request, it shall continue to be evaluated under the section 51 Study Process consistent with section 50.4.5.3 below.

50.4.5.1 If the proposed interconnection passes the supplemental screens in sections 50.4.4.1, 50.4.4.2, and 50.4.4.3 above and does not require construction of facilities by the Transmission Provider on its own system, the interconnection agreement shall be provided within ten Business Days after the notification of the supplemental review results.

50.4.5.2 If interconnection facilities or minor modifications to the Transmission Provider's system are required for the proposed interconnection to pass the supplemental screens in sections 50.4.4.1, 50.4.4.2, and 50.4.4.3 above, and the Interconnection Customer agrees to pay for the modifications to the Transmission Provider's electric system, the interconnection agreement, along with a non-binding good faith estimate for the interconnection facilities and/or minor modifications, shall be provided to the Interconnection Customer within 15 Business Days after receiving written notification of the supplemental review results.

50.4.5.3 If the proposed interconnection would require more than interconnection facilities or minor modifications to the Transmission Provider's system to pass the supplemental screens in sections 50.4.4.1, 50.4.4.2, and 50.4.4.3 above, the Transmission Provider shall notify the Interconnection Customer, at the same time it notifies the Interconnection Customer with the supplemental review results, that the Interconnection Request shall be evaluated under the section 51 Study Process unless the Interconnection Customer withdraws its Small Generating Facility.

V. **SMALL GENERATION INTERCONNECTION SERVICE**

51 **Study Process**

51.1 Applicability: The Study Process shall be used by an Interconnection Customer proposing to interconnect its Small Generating Facility with the Transmission Provider's Transmission System or Distribution System if the Small Generating Facility (1) is larger than 2 MW but no larger than 20 MW, (2) is not certified, or (3) is certified but did not pass the Fast Track Process or the 10 kW Inverter Process. Such projects shall be studied by Transmission Provider in accordance with the Cluster Study process discussed in Sections 36-48 of Transmission Provider's OATT, as further modified below for purposes of Small Generating Facilities.

51.2. Informational Studies for Small Generating Facilities

Small Generating Facilities eligible for study under this Section 51 may submit a reasonable number of requests for Informational Interconnection Studies, provided that such requests shall be submitted pursuant to the procedures in Section 41 of Transmission Provider's OATT. Transmission Provider shall process such requests pursuant to Section 41.

51.3 Scoping Meeting:

51.3.1 A scoping meeting will be held in accordance with the procedures set forth in Section 38.4.4 and Section 42.

51.3.2 Transmission Provider shall provide the Interconnection Customer a Cluster Study Agreement in the form of Appendix 3 consistent with the procedures set forth Section 42.1.

51.4 Cluster Study:

51.4.1 Except as otherwise noted in this Section 51, Transmission Provider shall study the Interconnection Request pursuant to Cluster Study procedures in Section 42, including any

Cluster Re-Studies as may be required under those procedures.

- 51.4.2 Interconnection Customer shall be required to pay its share of Cluster Study costs and Transmission Provider's Interconnection Facilities and Network Upgrade Costs as allocated by the Transmission Provider pursuant to Sections 39.2.2 and 39.2.3, respectively. Any invoices issued for such Cluster Study costs shall credit to Interconnection Customer any deposits or application fees paid pursuant to Section 49.
- 51.4.3 If the Scoping Meeting shows no potential for transmission system or Distribution System adverse system impacts, the Transmission Provider shall send the Interconnection Customer either a facilities study agreement (Appendix 8 to Attachment O of the Tariff), including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study, or an executable interconnection agreement, as applicable.
- 51.4.4 Where transmission systems and Distribution Systems have separate owners, such as is the case with transmission-dependent utilities ("TDUs") - whether investor-owned or not - the Interconnection Customer may apply to the nearest Transmission Provider (Transmission Owner, Regional Transmission Operator, or Independent Transmission Provider) providing transmission service to the TDU to request project coordination. Affected Systems shall participate in the study and provide all information necessary to prepare the study.

51.5 Facilities Study:

- 51.5.1 Simultaneously with the delivery of the final Cluster Study Report, or Cluster Re-Study Report if any, Transmission Provider shall provide Interconnection Customer with a Facilities Study Agreement including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the

facilities study.

- 51.5.2** In order to remain under consideration for interconnection, or, as appropriate, in the Transmission Provider's interconnection queue, the Interconnection Customer must return the executed facilities study agreement or a request for an extension of time within 30 Business Days.
- 51.5.3** The facilities study shall specify and estimate the cost of the equipment, engineering, procurement and construction work (including overheads) needed to implement the conclusions of the Cluster Study or distribution system impact study.
- 51.5.4** Design for any required Interconnection Facilities and/or Upgrades shall be performed under the facilities study agreement. The Transmission Provider may contract with consultants to perform activities required under the facilities study agreement. The Interconnection Customer and the Transmission Provider may agree to allow the Interconnection Customer to separately arrange for the design of some of the Interconnection Facilities. In such cases, facilities design will be reviewed and/or modified prior to acceptance by the Transmission Provider, under the provisions of the facilities study agreement. If the Parties agree to separately arrange for design and construction, and provided security and confidentiality requirements can be met, the Transmission Provider shall make sufficient information available to the Interconnection Customer in accordance with confidentiality and critical infrastructure requirements to permit the Interconnection Customer to obtain an independent design and cost estimate for any necessary facilities.
- 51.5.5** A deposit of the good faith estimated costs for the facilities study may be required from the Interconnection Customer.
- 51.5.6** The scope of and cost responsibilities for the

facilities study are described in the attached facilities study agreement.

51.5.7 Upon completion of the facilities study, and with the agreement of the Interconnection Customer to pay for Interconnection Facilities and Upgrades identified in the facilities study, the Transmission Provider shall provide the Interconnection Customer an executable interconnection agreement within five Business Days.

51.6 Restudies:

Small Generating Facilities that are studied for Interconnection to the Transmission Provider's Transmission System pursuant to this Section 51 shall be subject to the restudy provisions in Section 42.5 and 43.5.

ATTACHMENT N

**APPENDICES TO LARGE GENERATOR INTERCONNECTION PROCEDURES
(Refer to Part IV of the Tariff)**

APPENDIX 1 INTERCONNECTION REQUEST FOR A LARGE GENERATING FACILITY

APPENDIX 2 INFORMATIONAL INTERCONNECTION STUDY REQUEST

APPENDIX 2A INFORMATIONAL INTERCONNECTION STUDY AGREEMENT

APPENDIX 3 CLUSTER STUDY AGREEMENT

APPENDIX 4 INTERCONNECTION FACILITIES STUDY AGREEMENT

APPENDIX 5 SURPLUS INTERCONNECTION SERVICE SYSTEM IMPACT STUDY AGREEMENT

APPENDIX 6 STANDARD LARGE GENERATOR INTERCONNECTION AGREEMENT

APPENDIX 7 INTERCONNECTION PROCEDURES FOR A WIND GENERATING PLANT

APPENDIX 8 TECHNOLOGICAL ADVANCEMENT STUDY AGREEMENT

APPENDIX 1 to LGIP

**INTERCONNECTION REQUEST FOR A
LARGE GENERATING FACILITY**

1. The undersigned Interconnection Customer submits this request to interconnect its Large Generating Facility with Transmission Provider's Transmission System pursuant to a Tariff.

2. This Interconnection Request is for (check one):
 A proposed new Large Generating Facility.
 An increase in the generating capacity or a Material Modification of an existing Generating Facility.
 Surplus Interconnection Service.

3. The type of interconnection service requested (check one):
 Energy Resource Interconnection Service
 Network Resource Interconnection Service

(Note: For Surplus Interconnection Service requests, the type of Interconnection Service requested cannot exceed the type of interconnection service already provided by the original Interconnection Customer's LGIA)

4. Readiness Milestone Option selected, as specified in the LGIP, along with any supporting documentation:

(Note that if the Readiness Milestone Option in Section 38.4.1(v)d. is selected at this stage, pursuant to the LGIP, Interconnection Customer will need to either satisfy one of the other Readiness Milestone Options detailed in 38.4.1(v)a.-c., or provide additional financial security before proceeding to a Facilities Study)

5. Interconnection Customer provides the following information:
 - a. Address or location of the proposed new Large Generating Facility site (to the extent known) or, in the case of an existing Generating Facility, the name and specific location of the existing Generating Facility;

- b. Maximum summer at _____ degrees C and winter at _____ degrees C megawatt electrical output of the proposed new Large Generating Facility or the amount of megawatt increase in the generating capacity of an existing Generating Facility;
 - c. General description of the equipment configuration;
 - d. Commercial Operation Date (Day, Month, and Year);
 - e. Name, address, telephone number, and e-mail address of Interconnection Customer's contact person;
 - f. Approximate location of the proposed Point of Interconnection;
 - g. Interconnection Customer Data (set forth in Attachment A);
 - h. Primary frequency response operating range for electric storage resources; and
 - i. Requested capacity (in MW) of Interconnection Service (if lower than the Generating Facility Capacity).
 - j. For Surplus Interconnection Service: Completed Attachment B to this LGIP Appendix 1.
6. Applicable deposit amount as specified in the LGIP.
7. Site Control as specified in the LGIP (check one)
 _____ Evidence is attached to this Interconnection Request
 _____ Site Control deposit provided in accordance with this LGIP
8. This Interconnection Request shall be submitted to the representative indicated below:
 [To be completed by Transmission Provider]
9. Representative of Interconnection Customer to contact:
 [To be completed by Interconnection Customer]
10. This Interconnection Request is submitted by:

Name of Interconnection Customer: _____

By (signature): _____

Name (type or print): _____

Title: _____

Date: _____

**Attachment A to Appendix 1
Interconnection Request**

LARGE GENERATING FACILITY DATA

UNIT RATINGS

kVA _____ °F _____ Voltage _____
 Power Factor _____
 Speed (RPM) _____ Connection (e.g. Wye) _____
 Short Circuit Ratio _____ Frequency, Hertz _____
 Stator Amperes at Rated kVA _____ Field Volts _____
 Max Turbine MW _____ °F _____

Primary frequency response operating range for electric storage resources:

Minimum State of Charge: _____

Maximum State of Charge: _____

COMBINED TURBINE-GENERATOR-EXCITER INERTIA DATA

Inertia Constant, H = _____ kW sec/kVA
 Moment-of-Inertia, WR² = _____ lb. ft.²

REACTANCE DATA (PER UNIT-RATED KVA)

	DIRECT AXIS	QUADRATURE AXIS
Synchronous - saturated	X _{dv} _____	X _{qv} _____
Synchronous - unsaturated	X _{di} _____	X _{qi} _____
Transient - saturated	X' _{dv} _____	X' _{qv} _____
Transient - unsaturated	X' _{di} _____	X' _{qi} _____
Subtransient - saturated	X" _{dv} _____	X" _{qv} _____
Subtransient - unsaturated	X" _{di} _____	X" _{qi} _____
Negative Sequence - saturated	X _{2v} _____	
Negative Sequence - unsaturated	X _{2i} _____	
Zero Sequence - saturated	X _{0v} _____	
Zero Sequence - unsaturated	X _{0i} _____	
Leakage Reactance	X _{1m} _____	

FIELD TIME CONSTANT DATA (SEC)

Open Circuit T'_{do} _____ T'_{qo} _____

Three-Phase Short Circuit Transient	T' d3	_____	T' q	_____
Line to Line Short Circuit Transient	T' d2	_____		
Line to Neutral Short Circuit Transient	T' d1	_____		
Short Circuit Subtransient	T" d	_____	T" q	_____
Open Circuit Subtransient	T" do	_____	T" qo	_____

ARMATURE TIME CONSTANT DATA (SEC)

Three Phase Short Circuit	Ta3	_____
Line to Line Short Circuit	Ta2	_____
Line to Neutral Short Circuit	Ta1	_____

NOTE: If requested information is not applicable, indicate by marking "N/A."

**MW CAPABILITY AND PLANT CONFIGURATION
LARGE GENERATING FACILITY DATA**

ARMATURE WINDING RESISTANCE DATA (PER UNIT)

Positive	R1	_____
Negative	R2	_____
Zero	R0	_____

Rotor Short Time Thermal Capacity $I_2^{2t} =$ _____
 Field Current at Rated kVA, Armature Voltage and PF = _____ amps
 Field Current at Rated kVA and Armature Voltage, 0 PF = _____ amps
 Three Phase Armature Winding Capacitance = _____ microfarad
 Field Winding Resistance = _____ ohms _____ °C
 Armature Winding Resistance (Per Phase) = _____ ohms _____ °C

CURVES

Provide Saturation, Vee, Reactive Capability, Capacity Temperature Correction curves. Designate normal and emergency Hydrogen Pressure operating range for multiple curves.

GENERATOR STEP-UP TRANSFORMER DATA RATINGS

Capacity	Self-cooled/ Maximum Nameplate	
_____ / _____		kVA

Voltage Ratio(Generator Side/System side/Tertiary) _____ kV
/ /

Winding Connections (Low V/High V/Tertiary V (Delta or Wye))
/ /

Fixed Taps Available

Present Tap Setting

IMPEDANCE

Positive Z_1 (on self-cooled kVA rating) _____ % _____ X/R

Zero Z_0 (on self-cooled kVA rating) _____ % _____ X/R

EXCITATION SYSTEM DATA

Identify appropriate IEEE model block diagram of excitation system and power system stabilizer (PSS) for computer representation in power system stability simulations and the corresponding excitation system and PSS constants for use in the model.

GOVERNOR SYSTEM DATA

Identify appropriate IEEE model block diagram of governor system for computer representation in power system stability simulations and the corresponding governor system constants for use in the model.

WIND GENERATORS

Number of generators to be interconnected pursuant to this Interconnection Request: _____

Elevation: _____ Single Phase _____ Three Phase

Inverter manufacturer, model name, number, and version:

List of adjustable set-points for the protective equipment or

software:

Note: A completed General Electric Company Power Systems Load Flow (PSLF) data sheet or other compatible formats, such as IEEE and PTI power flow models, must be supplied with the Interconnection Request. If other data sheets are more appropriate to the proposed device, then they shall be provided and discussed at Scoping Meeting.

INDUCTION GENERATORS

- (*) Field Volts: _____
- (*) Field Amperes: _____
- (*) Motoring Power (kW): _____
- (*) Neutral Grounding Resistor (If Applicable): _____
- (*) I_2^2t or K (Heating Time Constant): _____
- (*) Rotor Resistance: _____
- (*) Stator Resistance: _____
- (*) Stator Reactance: _____
- (*) Rotor Reactance: _____
- (*) Magnetizing Reactance: _____
- (*) Short Circuit Reactance: _____
- (*) Exciting Current: _____
- (*) Temperature Rise: _____
- (*) Frame Size: _____
- (*) Design Letter: _____
- (*) Reactive Power Required In Vars (No Load): _____
- (*) Reactive Power Required In Vars (Full Load): _____
- (*) Total Rotating Inertia, H: _____ Per Unit on KVA Base

Note: Please consult Transmission Provider prior to submitting the Interconnection Request to determine if the information designated by (*) is required

**Attachment B to Appendix 1
Interconnection Request**

**Supplemental Information for Surplus Interconnection Service
Requests**

Consistent with Transmission Provider's Open Access Transmission Tariff ("OATT") Section 38.3 and implementing business practices, Surplus Interconnection Service may be requested.

I. SUBMITTING A SURPLUS INTERCONNECTION SERVICE REQUEST

Interconnection Customers shall request Surplus Interconnection Service by submitting this completed LGIP Appendix 1 (including Attachments) to the person or department noted in the Transmission Provider's currently-effective Surplus Interconnection Business Practice posted on OASIS along with any other additional technical information that may be required to process the Surplus Interconnection Service request.

II. ONE-LINE DIAGRAMS, DYNAMIC STUDY MODELS

An Interconnection Customer requesting Surplus Interconnection Service shall include the following information with a completed LGIP Appendix 1:

- A. A detailed one line diagram demonstrating the interaction between the existing and new generators and containing:
 - o Maximum Nameplate MW
 - o Generator make, model and specifications
 - o Power Factor
 - o Number of transformers
 - o Transformer sizes, impedances and winding configurations
 - o Collector system lengths and impedances

- B. Dynamic Stability Study Model - A WECC approved PSSE standard model in version 33 and above as well as a detailed user written model if the generating facility is renewable generation

Transmission Provider will notify the original interconnection customer of any technical information it will require for the existing generator in order to perform the Surplus

Interconnection Service analysis.

III. Information about Parties to the Surplus Interconnection Service Utilization or Transfer

Section 1: About Original Interconnection Customer		
a	Original Interconnection Customer Queue number	
b	Company name	
c	Customer Contact Name	
d	Project Name	
e	Customer Mailing Address	
F	Customer Phone Number and Email	
Section 2: About Surplus Interconnection Customer		
b	Company name	
c	Contact Name	
d	Project Name	
e	Mailing Address	
f	Phone Number and Email	
g	Affiliate of Original Interconnection Customer? (if No, see Sec.3(d))	
h	Expected Commercial Operation Date	
Section 3: Description of Surplus Service Request		
a	Describe request for Surplus Interconnection Service. Description of availability and plans for surplus; explain why surplus capacity is not being used by Original Interconnection Customer	
b	Amount of Surplus requested (MW)	
c	Date of Surplus request	
d	If Answer to Sec. 2(g) is No, confirmation by Original Interconnection Customer that neither it nor Affiliates seek this Surplus service	
e	When Surplus is available for use	
f	Describe any conditions	

	under which Surplus may be used (Excludes other conditions/requirements from Transmission Provider)	
--	---	--

IV. Verifications and Other Conditions

Regardless of the submitting entity, this request for Surplus Interconnection Service is supported by both Original Interconnection Customer (as defined in Part III to this LGIP Appendix 1, Attachment B) and Surplus Interconnection Customer (as defined in Part III to this LGIP Appendix 1, Attachment B), and both customers agree to cooperate with and provide additional information to enable Transmission Provider to evaluate and, if necessary study, the Surplus Interconnection Service request.

Any and all terms of surplus service will be subject to a later Surplus Interconnection Agreement to be executed by the Original Interconnection Customer, Surplus Interconnection Customer, and Transmission Provider, to be filed at the Commission.

Both Original Interconnection Customer and Surplus Interconnection Customer acknowledge that, pursuant to Commission requirements, this is an expedited process and that this Surplus Interconnection Service request may be deemed withdrawn if certain action is not timely taken pursuant to Transmission Provider's OATT Section 38.3.

Original Interconnection Customer

Signed: _____

Name: _____

Title: _____

Date: _____

Surplus Interconnection Customer

Signed: _____

Name: _____

Title: _____

Date: _____

APPENDIX 2 to LGIP
INFORMATIONAL INTERCONNECTION STUDY REQUEST

1. The undersigned Interconnection Customer submits this request for an Informational Interconnection Study pursuant to Transmission Provider's Tariff.
2. The type of interconnection service to be evaluated (check one):
_____ Energy Resource Interconnection Service
_____ Network Resource Interconnection Service
3. Check here _____ only if Network Resource Interconnection Service was selected above and Interconnection Customer also requests to have its proposed Generating Facility studied for Energy Resource Interconnection Service, for informational purposes.
4. Interconnection Customer provides the following information:
 - a. Address or location of the proposed new Large Generating Facility site to be studied (to the extent known) or, in the case of an existing Generating Facility, the name and specific location of the existing Generating Facility;
 - b. Maximum summer at _____ degrees C and winter at _____ degrees C megawatt electrical output of the proposed new Large Generating Facility or the amount of megawatt increase in the generating capacity of an existing Generating Facility;
 - c. General description of the equipment configuration;
 - d. Commercial Operation Date to be studied (Day, Month, and Year);
 - e. Name, address, telephone number, and e-mail address of Interconnection Customer's contact person;
 - f. Approximate location of the proposed Point of Interconnection;
 - g. Interconnection Customer Data (set forth in Attachment A);

- h. Primary frequency response operating range for electric storage resources; and
 - i. Requested capacity (in MW) of Interconnection Service to be studied (if lower than the Generating Facility Capacity).
5. \$10,000 study deposit amount as specified in the LGIP.
6. This Interconnection Request shall be submitted to the representative indicated below:
[To be completed by Transmission Provider]
7. Representative of Interconnection Customer to contact:
[To be completed by Interconnection Customer]
8. This Informational Interconnection Request is submitted by:

Name of Interconnection Customer: _____

By (signature): _____

Name (type or print): _____

Title: _____

Date: _____

**Attachment A to Appendix 2
Informational Interconnection Study Request**

LARGE GENERATING FACILITY DATA

UNIT RATINGS

kVA _____ °F _____ Voltage _____
 Power Factor _____
 Speed (RPM) _____ Connection (e.g. Wye) _____
 Short Circuit Ratio _____ Frequency, Hertz _____
 Stator Amperes at Rated kVA _____ Field Volts _____
 Max Turbine MW _____ °F _____

Primary frequency response operating range for electric storage resources:

Minimum State of Charge: _____

Maximum State of Charge: _____

COMBINED TURBINE-GENERATOR-EXCITER INERTIA DATA

Inertia Constant, H = _____ kW sec/kVA
 Moment-of-Inertia, WR² = _____ lb. ft.²

REACTANCE DATA (PER UNIT-RATED KVA)

	DIRECT AXIS	QUADRATURE AXIS
Synchronous - saturated	X _{dv} _____	X _{qv} _____
Synchronous - unsaturated	X _{di} _____	X _{qi} _____
Transient - saturated	X' _{dv} _____	X' _{qv} _____
Transient - unsaturated	X' _{di} _____	X' _{qi} _____
Subtransient - saturated	X" _{dv} _____	X" _{qv} _____
Subtransient - unsaturated	X" _{di} _____	X" _{qi} _____
Negative Sequence - saturated	X _{2v} _____	
Negative Sequence - unsaturated	X _{2i} _____	
Zero Sequence - saturated	X _{0v} _____	
Zero Sequence - unsaturated	X _{0i} _____	
Leakage Reactance	X _{1m} _____	

FIELD TIME CONSTANT DATA (SEC)

Open Circuit T'_{do} _____ T'_{qo} _____

Three-Phase Short Circuit Transient	T' d3	_____	T' q	_____
Line to Line Short Circuit Transient	T' d2	_____		
Line to Neutral Short Circuit Transient	T' d1	_____		
Short Circuit Subtransient	T" d	_____	T" q	_____
Open Circuit Subtransient	T" do	_____	T" qo	_____

ARMATURE TIME CONSTANT DATA (SEC)

Three Phase Short Circuit	Ta3	_____
Line to Line Short Circuit	Ta2	_____
Line to Neutral Short Circuit	Ta1	_____

NOTE: If requested information is not applicable, indicate by marking "N/A."

**MW CAPABILITY AND PLANT CONFIGURATION
LARGE GENERATING FACILITY DATA**

ARMATURE WINDING RESISTANCE DATA (PER UNIT)

Positive	R1	_____
Negative	R2	_____
Zero	R0	_____

Rotor Short Time Thermal Capacity $I_2^{2t} =$ _____
 Field Current at Rated kVA, Armature Voltage and PF = _____ amps
 Field Current at Rated kVA and Armature Voltage, 0 PF = _____ amps
 Three Phase Armature Winding Capacitance = _____ microfarad
 Field Winding Resistance = _____ ohms _____ °C
 Armature Winding Resistance (Per Phase) = _____ ohms _____ °C

CURVES

Provide Saturation, Vee, Reactive Capability, Capacity Temperature Correction curves. Designate normal and emergency Hydrogen Pressure operating range for multiple curves.

GENERATOR STEP-UP TRANSFORMER DATA RATINGS

Capacity Self-cooled/
 Maximum Nameplate
 _____ / _____ kVA

Voltage Ratio(Generator Side/System side/Tertiary) _____ kV
/ /

Winding Connections (Low V/High V/Tertiary V (Delta or Wye))
/ /

Fixed Taps Available

Present Tap Setting

IMPEDANCE

Positive Z_1 (on self-cooled kVA rating) _____ % _____ X/R

Zero Z_0 (on self-cooled kVA rating) _____ % _____ X/R

EXCITATION SYSTEM DATA

Identify appropriate IEEE model block diagram of excitation system and power system stabilizer (PSS) for computer representation in power system stability simulations and the corresponding excitation system and PSS constants for use in the model.

GOVERNOR SYSTEM DATA

Identify appropriate IEEE model block diagram of governor system for computer representation in power system stability simulations and the corresponding governor system constants for use in the model.

WIND GENERATORS

Number of generators to be interconnected pursuant to this Interconnection Request: _____

Elevation: _____ Single Phase _____ Three Phase

Inverter manufacturer, model name, number, and version:

List of adjustable set-points for the protective equipment or

software:

Note: A completed General Electric Company Power Systems Load Flow (PSLF) data sheet or other compatible formats, such as IEEE and PTI power flow models, must be supplied with the Interconnection Request. If other data sheets are more appropriate to the proposed device, then they shall be provided and discussed at Scoping Meeting.

INDUCTION GENERATORS

- (*) Field Volts: _____
- (*) Field Amperes: _____
- (*) Motoring Power (kW): _____
- (*) Neutral Grounding Resistor (If Applicable): _____
- (*) I_2^2t or K (Heating Time Constant): _____
- (*) Rotor Resistance: _____
- (*) Stator Resistance: _____
- (*) Stator Reactance: _____
- (*) Rotor Reactance: _____
- (*) Magnetizing Reactance: _____
- (*) Short Circuit Reactance: _____
- (*) Exciting Current: _____
- (*) Temperature Rise: _____
- (*) Frame Size: _____
- (*) Design Letter: _____
- (*) Reactive Power Required In Vars (No Load): _____
- (*) Reactive Power Required In Vars (Full Load): _____
- (*) Total Rotating Inertia, H: _____ Per Unit on KVA Base

Note: Please consult Transmission Provider prior to submitting the Interconnection Request to determine if the information designated by (*) is required

**APPENDIX 2A TO LGIP
INFORMATIONAL INTERCONNECTION STUDY AGREEMENT**

THIS AGREEMENT is made and entered into this _____ day of _____, 20____ by and between _____, a _____ organized and existing under the laws of the State of _____, ("Interconnection Customer,") and _____ a _____ existing under the laws of the State of _____, ("Transmission Provider "). Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

RECITALS

WHEREAS, Interconnection Customer is developing a Large Generating Facility or generating capacity addition to an existing Generating Facility; and

WHEREAS, Interconnection Customer is proposing to evaluate an interconnection with the Transmission System; and

WHEREAS, Interconnection Customer has submitted to Transmission Provider an Informational Interconnection Study Request; and

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Transmission Provider's FERC-approved LGIP.
- 2.0 Interconnection Customer elects and Transmission Provider shall cause to be performed an Informational Interconnection Study consistent with Section 41 of this LGIP in accordance with the Tariff.
- 3.0 The scope of the Informational Interconnection Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The Informational Interconnection Study shall be performed solely for informational purposes and is not binding on either Party.
- 5.0 The Informational Interconnection Study shall be based

on the technical information provided by Interconnection Customer in the Informational Interconnection Study Request, as may be modified as the result of the optional scoping meeting. Transmission Provider reserves the right to request additional technical information from Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Informational Interconnection Study. If Interconnection Customer modifies its Informational Interconnection Study Request, the time to complete the Informational Interconnection Study may be extended.

- 5.0 The Informational Interconnection Study Report shall provide the following information:
- preliminary identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection;
 - preliminary identification of any thermal overload or voltage limit violations resulting from the interconnection; and
 - preliminary description and non-bonding estimated cost of facilities required to interconnect the Large Generating Facility to the Transmission System and to address the identified short circuit and power flow issues.
- 6.0 Interconnection Customer shall provide a deposit of \$10,000 for the performance of the Informational Interconnection Study.

Upon receipt of the Informational Interconnection Study Transmission Provider shall charge and Interconnection Customer shall pay the actual costs of the Informational Interconnection Study.

Any difference between the deposit and the actual cost of the study shall be paid by or refunded to Interconnection Customer, as appropriate.

- 7.0 Miscellaneous. The Informational Interconnection Study Agreement shall include standard miscellaneous terms including, but not limited to, indemnities,

representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, and that are consistent with regional practices, Applicable Laws and Regulations, and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of the LGIP and the LGIA.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

[Insert name of Transmission Provider or Transmission Owner, if applicable]

By: _____

Title: _____

Date: _____

[Insert name of Interconnection Customer]

By: _____

Title: _____

Date: _____

**Attachment A to Appendix 2A
Informational Interconnection
Study Agreement**

**ASSUMPTIONS USED IN CONDUCTING THE
INFORMATIONAL INTERCONNECTION STUDY**

The Informational Interconnection Study will be based upon the information set forth in the Informational Interconnection Study Request and agreed upon in the optional scoping meeting held on _____:

Designation of Point of Interconnection and configuration to be studied.

Designation of alternative Point(s) of Interconnection and configuration.

[Above assumptions to be completed by the Interconnection Customer and other assumptions to be provided by the Interconnection Customer and Transmission Provider]

**APPENDIX 3 TO LGIP
CLUSTER STUDY AGREEMENT**

THIS AGREEMENT is made and entered into this _____ day of _____, 20____ by and between _____, a _____ organized and existing under the laws of the State of _____, ("Interconnection Customer,") and _____ a _____ existing under the laws of the State of _____, ("Transmission Provider "). Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

RECITALS

WHEREAS, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition (or modification) to an existing Generating Facility consistent with the Interconnection Request submitted by Interconnection Customer dated _____; and

WHEREAS, Interconnection Customer desires to interconnect the Large Generating Facility or generating capacity addition (or modification) to an existing Generating Facility with the Transmission System; and

WHEREAS, Interconnection Customer has requested Transmission Provider to perform a Cluster Study to assess the impact of interconnecting the Large Generating Facility or generating capacity addition (or modification) to an existing Generating Facility to the Transmission System, and of any Affected Systems;

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Transmission Provider's FERC-approved LGIP.
- 2.0 Interconnection Customer elects and Transmission Provider shall cause to be performed a Cluster Study consistent with Section 42 of this LGIP in accordance with the Tariff and any associated Business Practices as posted by Transmission provider on its OASIS page.
- 3.0 The scope of the Cluster Study shall be subject to the

assumptions set forth in Attachment A to this Agreement.

- 4.0 The Cluster Study will be based upon the information provided by Interconnection Customer in the Interconnection Request, subject to any modifications in accordance with Section 39.4 of the LGIP. Transmission Provider reserves the right to request additional technical information from Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Cluster Study. If Interconnection Customer modifies its Interconnection Request or the technical information provided therein, the time to complete the Cluster Study may be extended.
- 5.0 The Cluster Study report shall provide the following information:
- identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection;
 - identification of any thermal overload or voltage limit violations resulting from the interconnection;
 - identification of any instability or inadequately damped response to system disturbances resulting from the interconnection and
 - description and non-binding, good faith estimated cost of facilities required to interconnect the Large Generating Facility to the Transmission System and to address the identified short circuit, instability, and power flow issues.
- 6.0 Interconnection Customer's deposit, paid pursuant to Section 38.1 (or, Attachment W, as may be applicable), shall be used to pay Interconnection Customer's share of Cluster Study costs allocated pursuant to Section 39.3.3. Transmission Provider's good faith estimate for the time of completion of the Cluster Study is [insert date].

Upon receipt of the Cluster Study, Transmission Provider shall charge and Interconnection Customer

shall pay its actual allocable costs of the Cluster Study.

Any difference between the deposit and the actual cost of the study shall be paid by or refunded to Interconnection Customer, as appropriate. As provided in Section 48.3 of the LGIP, Interconnection Customer has thirty (30) Calendar Days of receipt of an invoice from Transmission Provider to pay any undisputed costs. If invoices are not paid within thirty (30) Calendar Days of receipt of an invoice, Transmission Provider shall draw upon the security and deposits provided to settle all accounts, which shall include any offsets of amounts due and owing by Transmission Provider. After the final invoice is paid and all accounts are settled, Transmission Provider shall refund all remaining security and deposits.

- 7.0 Miscellaneous. The Cluster Study Agreement shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, that are consistent with regional practices, Applicable Laws and Regulations and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of the LGIP and the LGIA.]

IN WITNESS THEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

[Insert name of Transmission Provider or Transmission Owner, if

applicable]

By: _____

Title: _____

Date: _____

[Insert name of Interconnection Customer]

By: _____

Title: _____

Date: _____

**Attachment A To Appendix 3
Cluster Study Agreement**

**ASSUMPTIONS USED IN CONDUCTING THE
CLUSTER STUDY**

The Cluster Study will be based upon the results of the information set forth in the Interconnection Request and results of applicable prior Interconnection Studies, subject to any modifications in accordance with Section 39.4 of the LGIP, and the following assumptions:

Designation of Point of Interconnection and configuration to be studied.

[Above assumptions to be completed by Interconnection Customer and other assumptions to be provided by Interconnection Customer and Transmission Provider]

**APPENDIX 4 TO LGIP
INTERCONNECTION FACILITIES STUDY AGREEMENT**

THIS AGREEMENT is made and entered into this _____ day of _____, 20____ by and between _____, a _____ organized and existing under the laws of the State of _____, ("Interconnection Customer,") and _____ a _____ existing under the laws of the State of _____, ("Transmission Provider "). Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

RECITALS

WHEREAS, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by Interconnection Customer dated _____; and

WHEREAS, Interconnection Customer desires to interconnect the Large Generating Facility with the Transmission System;

WHEREAS, Transmission Provider has completed a Cluster Study and provided the results of said study to Interconnection Customer; and

WHEREAS, Interconnection Customer has requested Transmission Provider to perform an Interconnection Facilities Study to specify and estimate the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the Interconnection System Impact Study in accordance with Good Utility Practice to physically and electrically connect the Large Generating Facility to the Transmission System.

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Transmission Provider's FERC-approved LGIP.
- 2.0 Interconnection Customer elects and Transmission Provider shall cause an Interconnection Facilities Study consistent with Section 43.0 of this LGIP to be

performed in accordance with the Tariff.

2.1 Interconnection Customer shall provide (a) a demonstration of Site Control and (b) a Readiness Milestone Option or additional financial security payment in accordance with Section 43.1 of the Tariff.

- 3.0 The scope of the Interconnection Facilities Study shall be subject to the assumptions set forth in Attachment A and the data provided in Attachment B to this Agreement.
- 4.0 The Interconnection Facilities Study report (i) shall provide a description, estimated cost of (consistent with Attachment A), schedule for required facilities to interconnect the Large Generating Facility to the Transmission System and (ii) shall address the short circuit, instability, and power flow issues identified in the Interconnection System Impact Study.
- 5.0 Interconnection Customer shall pay the actual costs of the Interconnection Facilities Study. The time for completion of the Interconnection Facilities Study is specified in Attachment A.

Transmission Provider shall invoice Interconnection Customer on a monthly basis for the work to be conducted on the Interconnection Facilities Study each month. Interconnection Customer shall pay invoiced amounts within thirty (30) Calendar Days of receipt of invoice. Transmission Provider shall continue to hold the amounts on deposit until settlement of the final invoice.

- 6.0 Miscellaneous. The Interconnection Facility Study Agreement shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, and that are consistent with regional practices, Applicable Laws and Regulations, and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of the LGIP and the LGIA.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

[Insert name of Transmission Provider or Transmission Owner, if applicable]

By: _____

Title: _____

Date: _____

[Insert name of Interconnection Customer]

By: _____

Title: _____

Date: _____

**Attachment A To Appendix 4
Interconnection Facilities
Study Agreement**

**INTERCONNECTION CUSTOMER SCHEDULE ELECTION FOR CONDUCTING THE
INTERCONNECTION FACILITIES STUDY**

Transmission Provider shall use Reasonable Efforts to complete the study and issue a draft Interconnection Facilities Study report to Interconnection Customer within the following number of days after of receipt of an executed copy of this Interconnection Facilities Study Agreement:

_____ ninety (90) Calendar Days with no more than a +/- 20 percent cost estimate contained in the report, or

_____ one hundred eighty (180) Calendar Days with no more than a +/- 10 percent cost estimate contained in the report.

**Attachment B to Appendix 4
Interconnection Facilities
Study Agreement**

**DATA FORM TO BE PROVIDED BY INTERCONNECTION CUSTOMER WITH THE
INTERCONNECTION FACILITIES STUDY AGREEMENT**

Provide location plan and simplified one-line diagram of the plant and station facilities. For staged projects, please indicate future generation, transmission circuits, etc.

One set of metering is required for each generation connection to the new ring bus or existing Transmission Provider station.
Number of generation connections:

On the one line diagram indicate the generation capacity attached at each metering location. (Maximum load on CT/PT)

On the one line diagram indicate the location of auxiliary power. (Minimum load on CT/PT) Amps

Will an alternate source of auxiliary power be available during CT/PT maintenance?

_____ Yes _____ No

Will a transfer bus on the generation side of the metering require that each meter set be designed for the total plant generation?

_____ Yes _____ No (Please indicate on one line diagram).

What type of control system or PLC will be located at Interconnection Customer's Large Generating Facility?

What protocol does the control system or PLC use?

Please provide a 7.5-minute quadrangle of the site. Sketch the plant, station, transmission line, and property line.

Physical dimensions of the proposed interconnection station:

Bus length from generation to interconnection station:

APPENDIX 5 TO LGIP

SURPLUS INTERCONNECTION SERVICE SYSTEM IMPACT STUDY AGREEMENT

THIS AGREEMENT is made and entered into this _____ day of _____, 20____ by and between _____, a _____ organized and existing under the laws of the State of _____, ("Interconnection Customer,") and _____ a _____ existing under the laws of the State of _____, ("Transmission Provider "). Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

RECITALS

WHEREAS, in accordance with a request submitted to the Transmission Provider on _____ Interconnection Customer is proposing to utilize Surplus Interconnection Service associated with a Large Generating Facility operating under an LGIA between _____ ("Original Interconnection Customer") and Transmission Provider dated _____;

WHEREAS, Interconnection Customer desires to interconnect the Large Generating Facility to an existing Generating Facility with the Transmission System; and

WHEREAS, Interconnection Customer has requested Transmission Provider to perform a Surplus Interconnection Service System Impact Study to assess the impact of utilization of Surplus Interconnection Service on the Transmission System, and any Affected Systems.

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Transmission Provider's FERC-approved LGIP.
- 2.0 Interconnection Customer elects and Transmission Provider shall cause to be performed a Surplus Interconnection Service System Impact Study consistent with Section 38 of this LGIP and any associated Business Practices as posted by Transmission provider on its OASIS page.

- 3.0 The scope of the Surplus Interconnection Service System Impact Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The Surplus Interconnection Service System Impact Study will be performed based on the requirements of Section 38 of Transmission Provider's Tariff and the technical information provided by Interconnection Customer in the Interconnection Request, subject to any modifications in accordance with Section 39.4 of the LGIP. Transmission Provider reserves the right to request additional technical information from Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Surplus Interconnection Service System Impact Study. If Interconnection Customer modifies its Interconnection Request, or the technical information provided therein is modified, the time to complete the Surplus Interconnection Service System Impact Study may be extended.
- 5.0 The Surplus Interconnection Service System Impact Study report shall provide the following information:
- identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection;
 - identification of any thermal overload or voltage limit violations resulting from the interconnection;
 - identification of any instability or inadequately damped response to system disturbances resulting from the interconnection and
 - description and non-binding, good faith estimated cost of facilities required to interconnect the Large Generating Facility to the Transmission System and to address the identified short circuit, instability, and power flow issues.
- 6.0 Transmission Provider's good faith estimate for the time of completion of the Interconnection System Impact Study is [insert date]. Interconnection

Customer's deposit for the Surplus Interconnection Service System Impact Study shall be the same \$10,000 provided by the Interconnection Customer as part of the Surplus Interconnection Service Request.

Transmission Provider shall charge and Interconnection Customer shall pay the actual costs of the Interconnection System Impact Study.

Any difference between the deposit and the actual cost of the study shall be paid by or refunded to Interconnection Customer, as appropriate.

- 7.0 Miscellaneous. The Interconnection System Impact Study Agreement shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, that are consistent with regional practices, Applicable Laws and Regulations and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of the LGIP and the LGIA.]

IN WITNESS THEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

[Insert name of Transmission Provider or Transmission Owner, if applicable]

By: _____

Title: _____

Date: _____

[Insert name of Interconnection Customer]

By: _____

Title: _____

Date: _____

**Attachment A To Appendix 5
Surplus Interconnection Service System Impact
Study Agreement**

**ASSUMPTIONS USED IN CONDUCTING THE
SURPLUS INTERCONNECTION SERVICE SYSTEM IMPACT STUDY**

The Surplus Interconnection Service System Impact Study will be based upon the results of the Original Interconnection Customer's system impact study (if any) or Cluster Study, and the following assumptions:

Existing Point of Interconnection of Original Interconnection Customer:

Note: For Surplus Interconnection Service requests, the request cannot exceed the type of Interconnection Service already provided by the Original Interconnection Customer's LGIA.

[Above assumptions to be completed by Interconnection Customer and other assumptions to be provided by Interconnection Customer and Transmission Provider]

Appendix 6 to the Standard Large
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STANDARD LARGE GENERATOR

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STANDARD LARGE GENERATOR INTERCONNECTION AGREEMENT

THIS STANDARD LARGE GENERATOR INTERCONNECTION AGREEMENT ("Agreement") is made and entered into this _____ day of _____, 20__ by and between _____, a _____ organized and existing under the laws of the State/Commonwealth of _____ ("Interconnection Customer" with a Large Generating Facility), and _____ a _____ organized and existing under the laws of the State/Commonwealth of _____ ("Transmission Provider and/or Transmission Owner"). Interconnection Customer and Transmission Provider each may be referred to as a "Party" or collectively as the "Parties."

Recitals

WHEREAS, Transmission Provider operates the Transmission System; and

WHEREAS, Interconnection Customer intends to own, lease and/or control and operate the Generating Facility identified as a Large Generating Facility in Appendix C to this Agreement; and,

WHEREAS, Interconnection Customer and Transmission Provider have agreed to enter into this Agreement for the purpose of interconnecting the Large Generating Facility with the Transmission System;

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein, it is agreed:

When used in this Standard Large Generator Interconnection Agreement, terms with initial capitalization that are not defined in Article 1 shall have the meanings specified in the Article in which they are used or the Open Access Transmission Tariff (Tariff).

Article 1. Definitions

Adverse System Impact shall mean the negative effects due to technical or operational limits on conductors or equipment being exceeded that may compromise the safety and reliability of the electric system.

Affected System shall mean an electric system other than the Transmission Provider's Transmission System that may be affected by the proposed interconnection.

Affected System Operator shall mean the entity that operates an Affected System.

Affiliate shall mean, with respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

Ancillary Services shall mean those services that are necessary to support the transmission of capacity and energy from resources to loads while maintaining reliable operation of the Transmission Provider's Transmission System in accordance with Good Utility Practice.

Applicable Laws and Regulations shall mean all duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

Applicable Reliability Council shall mean the reliability council applicable to the Transmission System to which the Generating Facility is directly interconnected.

Applicable Reliability Standards shall mean the requirements and guidelines of NERC, the Applicable Reliability Council, and the Control Area of the Transmission System to which the Generating Facility is directly interconnected.

Base Case shall mean the base case power flow, short circuit, and stability data bases used for the Interconnection Studies by the Transmission Provider or Interconnection Customer.

Breach shall mean the failure of a Party to perform or observe any material term or condition of the Standard Large Generator Interconnection Agreement.

Breaching Party shall mean a Party that is in Breach of the Standard Large Generator Interconnection Agreement.

Business Day shall mean Monday through Friday, excluding Federal Holidays.

Calendar Day shall mean any day including Saturday, Sunday or a Federal Holiday.

Cluster shall mean a group of Interconnection Requests (one or more) that are studied together for the purpose of conducting the Cluster Study.

Cluster Area shall mean the areas of the Transmission Provider's Transmission System that are included together in a Cluster, as described further in Section 42.4 of the LGIP.

Cluster Request Window shall have the meaning set forth in Section 39.2.1 of the LGIP.

Cluster Re-Study shall mean a restudy of a Cluster Study conducted pursuant to Section 42.4 of the LGIP.

Cluster Re-Study Report shall mean the report issued following completion of a Cluster Re-Study pursuant to Section 42.4 of the LGIP.

Cluster Re-Study Meeting shall mean the meeting held to discuss the results of a Cluster Re-Study pursuant to Section 42.4 of the LGIP.

Cluster Study shall mean an Interconnection Study evaluating one or more Interconnection Requests within a Cluster as described in more detail in Section 42.4 of the LGIP.

Cluster Study Agreement shall mean the form of agreement contained in Appendix 3 to the Standard Large Generator Interconnection Procedures for conducting the Cluster Study.

Cluster Study Report shall mean the report issued following completion of a Cluster Study pursuant to Section 42.4 of the LGIP.

Cluster Study Report Meeting shall mean the meeting held to discuss the results of a Cluster Study pursuant to Section 42.4 of the LGIP.

Clustering shall mean the process whereby a group of Interconnection Requests is studied together, instead of serially, as described in more detail in Section 42 of the LGIP.

Commercial Operation shall mean the status of a Generating Facility that has commenced generating electricity for sale,

excluding electricity generated during Trial Operation.

Commercial Operation Date of a unit shall mean the date on which the Generating Facility commences Commercial Operation as agreed to by the Parties pursuant to Appendix E to the Standard Large Generator Interconnection Agreement.

Confidential Information shall mean any confidential, proprietary or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy or compilation relating to the present or planned business of a Party, which is designated as confidential by the Party supplying the information, whether conveyed orally, electronically, in writing, through inspection, or otherwise.

Control Area shall mean an electrical system or systems bounded by interconnection metering and telemetry, capable of controlling generation to maintain its interchange schedule with other Control Areas and contributing to frequency regulation of the interconnection. A Control Area must be certified by the Applicable Reliability Council.

Customer Engagement Window shall have the meaning set forth in Section 42.2 of the LGIP.

Default shall mean the failure of a Breaching Party to cure its Breach in accordance with Article 17 of the Standard Large Generator Interconnection Agreement.

Dispute Resolution shall mean the procedure for resolution of a dispute between the Parties in which they will first attempt to resolve the dispute on an informal basis.

Distribution System shall mean the Transmission Provider's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which distribution systems operate differ among areas.

Distribution Upgrades shall mean the additions, modifications, and upgrades to the Transmission Provider's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Generating Facility and render the transmission service necessary to effect Interconnection Customer's wholesale sale of electricity in interstate commerce.

Distribution Upgrades do not include Interconnection Facilities.

Effective Date shall mean the date on which the Standard Large Generator Interconnection Agreement becomes effective upon execution by the Parties subject to acceptance by FERC, or if filed unexecuted, upon the date specified by FERC.

Emergency Condition shall mean a condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (2) that, in the case of a Transmission Provider, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to Transmission Provider's Transmission System, Transmission Provider's Interconnection Facilities or the electric systems of others to which the Transmission Provider's Transmission System is directly connected; or (3) that, in the case of Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Generating Facility or Interconnection Customer's Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions; provided, that Interconnection Customer is not obligated by the Standard Large Generator Interconnection Agreement to possess black start capability.

Energy Resource Interconnection Service shall mean an Interconnection Service that allows the Interconnection Customer to connect its Generating Facility to the Transmission Provider's Transmission System to be eligible to deliver the Generating Facility's electric output using the existing firm or nonfirm capacity of the Transmission Provider's Transmission System on an as available basis. Energy Resource Interconnection Service in and of itself does not convey transmission service.

Engineering & Procurement (E&P) Agreement shall mean an agreement that authorizes the Transmission Provider to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection in order to advance the implementation of the Interconnection Request.

Environmental Law shall mean Applicable Laws or Regulations relating to pollution or protection of the environment or natural resources.

Federal Power Act shall mean the Federal Power Act, as

amended, 16 U.S.C. §§ 791a et seq.

FERC shall mean the Federal Energy Regulatory Commission (Commission) or its successor.

Financial Security shall mean any of the forms of collateral or security listed in Section 2 of the Creditworthiness Procedures included in Attachment L to this Tariff.

Force Majeure shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure event does not include acts of negligence or intentional wrongdoing by the Party claiming Force Majeure.

Generating Facility shall mean Interconnection Customer's device for the production and/or storage for later injection of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

Generating Facility Capacity shall mean the net capacity of the Generating Facility and the aggregate net capacity of the Generating Facility where it includes multiple energy production devices.

Good Utility Practice shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

Governmental Authority shall mean any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other

governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include Interconnection Customer, Transmission Provider, or any Affiliate thereof.

Hazardous Substances shall mean any chemicals, materials or substances defined as or included in the definition of "hazardous substances," "hazardous wastes," "hazardous materials," "hazardous constituents," "restricted hazardous materials," "extremely hazardous substances," "toxic substances," "radioactive substances," "contaminants," "pollutants," "toxic pollutants" or words of similar meaning and regulatory effect under any applicable Environmental Law, or any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law.

Informational Interconnection Study shall mean an analysis based on assumptions specified by Interconnection Customer in the Informational Interconnection Study Agreement and conducted pursuant to Section 41 of the LGIP.

Informational Interconnection Study Agreement shall mean the form of agreement contained in Appendix 2A to the Standard Large Generator Interconnection Procedures for conducting the Informational Interconnection Study.

Informational Interconnection Study Request shall mean an Interconnection Customer's request in the form of Appendix 2 to the Standard Large Generator Interconnection Procedures.

Initial Synchronization Date shall mean the date upon which the Generating Facility is initially synchronized and upon which Trial Operation begins.

In-Service Date shall mean the date upon which the Interconnection Customer reasonably expects it will be ready to begin use of the Transmission Provider's Interconnection Facilities to obtain back feed power.

Interconnection Customer shall mean any entity, including the Transmission Provider, Transmission Owner or any of the Affiliates or subsidiaries of either, that proposes to interconnect its Generating Facility with the Transmission

Provider's Transmission System. For purposes of the Transmission Provider's Cluster Study process conducted pursuant to Section 42, and except as modified by Section 51 of Transmission Provider's OATT, "Interconnection Customer" shall also mean any Small Generating Facility that is participating in a Cluster.

Interconnection Customer's Interconnection Facilities shall mean all facilities and equipment, as identified in Appendix A of the Standard Large Generator Interconnection Agreement, that are located between the Generating Facility and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Generating Facility to the Transmission Provider's Transmission System. Interconnection Customer's Interconnection Facilities are sole use facilities.

Interconnection Facilities shall mean the Transmission Provider's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Generating Facility to the Transmission Provider's Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades. Interconnection Facilities may be shared by more than one Generating Facility in a Cluster.

Interconnection Facilities Study shall mean a study conducted by the Transmission Provider or a third party consultant for the Interconnection Customer to determine a list of facilities (including Transmission Provider's Interconnection Facilities and Network Upgrades as identified in the Interconnection System Impact Study), the cost of those facilities, and the time required to interconnect the Generating Facility with the Transmission Provider's Transmission System. The scope of the study is defined in Section 43 of the Standard Large Generator Interconnection Procedures.

Interconnection Facilities Study Agreement shall mean the form of agreement contained in Appendix 4 of the Standard Large Generator Interconnection Procedures for conducting the Interconnection Facilities Study.

Interconnection Request shall mean an Interconnection Customer's request, in the form of Appendix 1 to the Standard Large Generator Interconnection Procedures, in accordance with the Tariff, to interconnect a new Generating Facility, or to increase the capacity of, or make a Material Modification to the operating characteristics of, an existing Generating Facility that is interconnected with the Transmission Provider's Transmission System. For purposes of the Transmission Provider's Cluster Study process conducted pursuant to Section 42, and except as modified by Section 51 of Transmission Provider's OATT, "Interconnection Request" shall also mean any interconnection request from a Small Generating Facility that is participating in a Cluster.

Interconnection Service shall mean the service provided by the Transmission Provider associated with interconnecting the Interconnection Customer's Generating Facility to the Transmission Provider's Transmission System and enabling it to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Standard Large Generator Interconnection Agreement and, if applicable, the Transmission Provider's Tariff.

Interconnection Study shall mean any of the following studies: the Informational Interconnection Study, the Cluster Study, Surplus Interconnection Service System Impact Study, and the Interconnection Facilities Study described in the Standard Large Generator Interconnection Procedures.

IRS shall mean the Internal Revenue Service.

Joint Operating Committee shall be a group made up of representatives from Interconnection Customers and the Transmission Provider to coordinate operating and technical considerations of Interconnection Service.

Large Generating Facility shall mean a Generating Facility having a Generating Facility Capacity of more than 20 MW.

Loss shall mean any and all losses relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's performance, or non-performance of its obligations under the Standard Large Generator Interconnection Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by

the indemnifying Party.

Material Modification shall mean those modifications that have a material impact on the cost or timing of any Interconnection Request with a later queue priority date.

Metering Equipment shall mean all metering equipment installed or to be installed at the Generating Facility pursuant to the Standard Large Generator Interconnection Agreement at the metering points, including but not limited to instrument transformers, MWh-meters, data acquisition equipment, transducers, remote terminal unit, communications equipment, phone lines, and fiber optics.

NERC shall mean the North American Electric Reliability Council or its successor organization.

Network Resource shall mean any designated generating resource owned, purchased, or leased by a Network Customer under the Network Integration Transmission Service Tariff. Network Resources do not include any resource, or any portion thereof, that is committed for sale to third parties or otherwise cannot be called upon to meet the Network Customer's Network Load on a non-interruptible basis.

Network Resource Interconnection Service shall mean an Interconnection Service that allows the Interconnection Customer to integrate its Large Generating Facility with the Transmission Provider's Transmission System (1) in a manner comparable to that in which the Transmission Provider integrates its generating facilities to serve native load customers; or (2) in an RTO or ISO with market based congestion management, in the same manner as Network Resources. Network Resource Interconnection Service in and of itself does not convey transmission service.

Network Upgrades shall mean the additions, modifications, and upgrades to the Transmission Provider's Transmission System required at or beyond the point at which the Interconnection Facilities connect to the Transmission Provider's Transmission System to accommodate the interconnection of the Large Generating Facility to the Transmission Provider's Transmission System.

Notice of Dispute shall mean a written notice of a dispute or claim that arises out of or in connection with the Standard Large Generator Interconnection Agreement or its performance.

Party or Parties shall mean Transmission Provider, Transmission Owner, Interconnection Customer or any combination of the above.

Point of Change of Ownership shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Customer's Interconnection Facilities connect to the Transmission Provider's Interconnection Facilities.

Point of Interconnection shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Facilities connect to the Transmission Provider's Transmission System.

Provisional Interconnection Service shall mean Interconnection Service provided by Transmission Provider associated with interconnecting the Interconnection Customer's Generating Facility to Transmission Provider's Transmission System and enabling that Transmission System to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Provisional Large Generator Interconnection Agreement and, if applicable, the Tariff.

Provisional Large Generator Interconnection Agreement shall mean the interconnection agreement for Provisional Interconnection Service established between Transmission Provider and/or the Transmission Owner and the Interconnection Customer. This agreement shall take the form of the Large Generator Interconnection Agreement, modified for provisional purposes.

Queue Position shall mean the order of a valid Interconnection Request, relative to all other pending valid Interconnection Requests, that is established based upon the date and time of Interconnection Customer satisfies all of the requirements of Sections 38, 39, and 42 of Transmission Provider's LGIP to enter the Cluster Study Process.

Reasonable Efforts shall mean, with respect to an action required to be attempted or taken by a Party under the Standard Large Generator Interconnection Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

Readiness Milestone Options shall mean those options set forth in Section 38.4.1(v) of the LGIP.

Resource Plan shall mean any process authorized or required by Applicable Laws and Regulations for, inter alia, the selection of Generating Facilities.

Resource Solicitation Process shall mean any process authorized or required by Applicable Laws and Regulations for the acquisition of Network Resources.

Scoping Meeting shall mean the meeting between representatives of the Interconnection Customer and Transmission Provider conducted for the purpose of discussing the proposed interconnection request, alternative interconnection options, to exchange information including any transmission data and earlier study evaluations that would be reasonably expected to affect such interconnection options, to analyze such information, and to determine the potential feasible Points of Interconnection.

Site Control shall mean the exclusive land right to develop, construct, operate, and maintain the Generating Facility over the term of expected operation of the Generating Facility. Site Control may be demonstrated by documentation establishing: (1) ownership of, a leasehold interest in, or a right to develop a site of sufficient size to construct and operate the Generating Facility; (2) an option to purchase or acquire a leasehold interest in a site of sufficient size to construct and operate the Generating Facility; or (3) any other documentation that clearly demonstrates the right of the Interconnection Customer to exclusively occupy a site of sufficient size to construct and operate the Generating Facility. Site Control for any co-located project is demonstrated by a contract or other agreement demonstrating shared land use for all co-located projects that meet the aforementioned provisions of this Site Control definition.

Small Generating Facility shall mean a Generating Facility that has a Generating Facility Capacity of no more than 20 MW.

Stand Alone Network Upgrades shall mean Network Upgrades that are not part of an Affected System that an Interconnection Customer may construct without affecting day-to-day operations of the Transmission System during their construction. Both the Transmission Provider and the Interconnection Customer must agree as to what constitutes Stand Alone Network Upgrades and identify them in Appendix A to the Standard Large Generator

Interconnection Agreement. If the Transmission Provider and Interconnection Customer disagree about whether a particular Network Upgrade is a Stand Alone Network Upgrade, the Transmission Provider must provide the Interconnection Customer a written technical explanation outlining why the Transmission Provider does not consider the Network Upgrade to be a Stand Alone Network Upgrade within 15 days of its determination.

Standard Large Generator Interconnection Agreement (LGIA) shall mean the form of interconnection agreement applicable to an Interconnection Request pertaining to a Large Generating Facility that is included in the Transmission Provider's Tariff.

Standard Large Generator Interconnection Procedures (LGIP) shall mean the interconnection procedures applicable to an Interconnection Request pertaining to a Large Generating Facility that are included in the Transmission Provider's Tariff.

Surplus Interconnection Service shall mean any unneeded portion of Interconnection Service established in a Large Generator Interconnection Agreement, such that if Surplus Interconnection Service is utilized the total amount of Interconnection Service at the Point of Interconnection would remain the same.

Surplus Interconnection Service System Impact Study shall mean an engineering study that evaluates the impact of a proposed request for Surplus Interconnection Service on the safety and reliability of Transmission Provider's Transmission System and, if applicable, an Affected System. The study shall identify and detail the system impacts that would result if the Generating Facility were interconnected without project modifications or system modifications, focusing on the Adverse System Impacts, or to study potential impacts, including but not limited to those identified in the Scoping Meeting as described in the Standard Large Generator Interconnection Procedures.

Surplus Interconnection Service System Impact Study Agreement shall mean the form of agreement contained in Appendix XX of the Standard Large Generator Interconnection Procedures for conducting a system impact study for purposes of evaluating a request for Surplus Interconnection Service pursuant to Section 38.3.

System Protection Facilities shall mean the equipment, including necessary protection signal communications equipment,

required to protect (1) the Transmission Provider's Transmission System from faults or other electrical disturbances occurring at the Generating Facility and (2) the Generating Facility from faults or other electrical system disturbances occurring on the Transmission Provider's Transmission System or on other delivery systems or other generating systems to which the Transmission Provider's Transmission System is directly connected.

Tariff shall mean the Transmission Provider's Tariff through which open access transmission service and Interconnection Service are offered, as filed with FERC, and as amended or supplemented from time to time, or any successor tariff.

Transmission Owner shall mean an entity that owns, leases or otherwise possesses an interest in the portion of the Transmission System at the Point of Interconnection and may be a Party to the Standard Large Generator Interconnection Agreement to the extent necessary.

Transmission Provider shall mean the public utility (or its designated agent) that owns, controls, or operates transmission or distribution facilities used for the transmission of electricity in interstate commerce and provides transmission service under the Tariff. The term Transmission Provider should be read to include the Transmission Owner when the Transmission Owner is separate from the Transmission Provider.

Transmission Provider's Interconnection Facilities shall mean all facilities and equipment owned, controlled or operated by the Transmission Provider from the Point of Change of Ownership to the Point of Interconnection as identified in Appendix A to the Standard Large Generator Interconnection Agreement, including any modifications, additions or upgrades to such facilities and equipment. Transmission Provider's Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades. Transmission Provider's Interconnection Facilities may be shared by more than one Generating Facility in a given Cluster Study.

Transmission System shall mean the facilities owned, controlled or operated by the Transmission Provider or Transmission Owner that are used to provide transmission service under the Tariff.

Trial Operation shall mean the period during which

Interconnection Customer is engaged in on-site test operations and commissioning of the Generating Facility prior to Commercial Operation.

Variable Energy Resource shall mean a device for the production of electricity that is characterized by an energy source that: (1) is renewable; (2) cannot be stored by the facility owner or operator; and (3) has variability that is beyond the control of the facility owner or operator.

Withdrawal Penalty shall have the meaning set forth in Section 38.7.1 of the LGIP.

Article 2. Effective Date, Term, and Termination

2.1 Effective Date. This LGIA shall become effective upon execution by the Parties subject to acceptance by FERC (if applicable), or if filed unexecuted, upon the date specified by FERC. Transmission Provider shall promptly file this LGIA with FERC upon execution in accordance with Article 3.1, if required.

2.2 Term of Agreement. Subject to the provisions of Article 2.3, this LGIA shall remain in effect for a period of ten (10) years from the Effective Date or such other longer period as Interconnection Customer may request (Term to be specified in individual agreements) and shall be automatically renewed for each successive one-year period thereafter.

2.3 Termination Procedures.

- 2.3.1 Written Notice.** This LGIA may be terminated by Interconnection Customer after giving Transmission Provider ninety (90) Calendar Days advance written notice, or by Transmission Provider notifying FERC after the Generating Facility permanently ceases Commercial Operation. This LGIA shall be terminated by Transmission Provider if the Generating Facility or a portion of the Generating Facility fails to achieve Commercial Operation by the Commercial Operation Date established in accordance with Section 39.4.5 of the LGIP, including any extension provided thereunder, or, having previously achieved Commercial Operation, has ceased Commercial Operation for three (3) consecutive years, beginning with the last date of Commercial Operation for the Generating Facility, after giving Interconnection Customer ninety (90) Calendar Days advance written notice. When only a portion of the Generating Facility fails to achieve Commercial Operation by the Commercial Operation Date established in accordance with Section 39.4.5 of the LGIP, including any extension provided thereunder, Transmission Provider shall terminate only that portion of the LGIA. Notwithstanding the foregoing, in the limited circumstance that the Interconnection Request is served by a Contingent Facility with an in-service date that is later than the Commercial Operation Date permitted under Section 39.4.5 of the LGIP, Transmission Provider shall terminate this LGIA only for failure to achieve Commercial Operation by ninety (90) Calendar Days after that later in-service date of the Contingent Facility. The Generating Facility will not be deemed to have ceased Commercial Operation for purposes of this Article 2.3.1 if Interconnection Customer can document that it has taken other significant steps to maintain or restore operational readiness of the Generating Facility for the purpose of returning the Generating Facility to Commercial Operation as soon as possible.
- 2.3.2 Default.** Either Party may terminate this LGIA in accordance with Article 17.
- 2.3.3** Notwithstanding Articles 2.3.1 and 2.3.2, no termination shall become effective until the

Parties have complied with all Applicable Laws and Regulations applicable to such termination, including the filing with FERC of a notice of termination of this LGIA, which notice has been accepted for filing by FERC.

2.4 Termination Costs. If a Party elects to terminate this Agreement pursuant to Article 2.3 above, each Party shall pay all costs incurred (including any cancellation costs relating to orders or contracts for Interconnection Facilities and equipment) or charges assessed by the other Party, as of the date of the other Party's receipt of such notice of termination, that are the responsibility of the Terminating Party under this LGIA. In the event of termination by a Party, the Parties shall use commercially Reasonable Efforts to mitigate the costs, damages and charges arising as a consequence of termination. Upon termination of this LGIA, unless otherwise ordered or approved by FERC:

2.4.1 With respect to any portion of Transmission Provider's Interconnection Facilities that have not yet been constructed or installed, Transmission Provider shall to the extent possible and with Interconnection Customer's authorization cancel any pending orders of, or return, any materials or equipment for, or contracts for construction of, such facilities; provided that in the event Interconnection Customer elects not to authorize such cancellation, Interconnection Customer shall assume all payment obligations with respect to such materials, equipment, and contracts, and Transmission Provider shall deliver such material and equipment, and, if necessary, assign such contracts, to Interconnection Customer as soon as practicable, at Interconnection Customer's expense. To the extent that Interconnection Customer has already paid Transmission Provider for any or all such costs of materials or equipment not taken by Interconnection Customer, Transmission Provider shall promptly refund such amounts to Interconnection Customer, less any costs, including penalties incurred by Transmission Provider to cancel any pending orders of or return such materials, equipment, or contracts.

If an Interconnection Customer terminates this LGIA, it shall be responsible for all costs incurred in association with that Interconnection Customer's interconnection, including any cancellation costs relating to orders or contracts for Interconnection Facilities and equipment, and other expenses including any Network Upgrades for which Transmission Provider has incurred expenses and has not been reimbursed by Interconnection Customer.

2.4.2 Transmission Provider may, at its option, retain any portion of such materials, equipment, or facilities that Interconnection Customer chooses not to accept delivery of, in which case Transmission Provider shall be responsible for all costs associated with procuring such materials, equipment, or facilities.

2.4.3 With respect to any portion of the Interconnection Facilities, and any other facilities already installed or constructed pursuant to the terms of this LGIA, Interconnection Customer shall be responsible for all costs associated with the removal, relocation or other disposition or retirement of such materials, equipment, or facilities.

2.5 Disconnection. Upon termination of this LGIA, the Parties will take all appropriate steps to disconnect the Large Generating Facility from the Transmission System. All costs required to effectuate such disconnection shall be borne by the terminating Party, unless such termination resulted from the non-terminating Party's Default of this LGIA or such non-terminating Party otherwise is responsible for these costs under this LGIA.

2.6 Survival. This LGIA shall continue in effect after termination to the extent necessary to provide for final billings and payments and for costs incurred hereunder, including billings and payments pursuant to this LGIA; to permit the determination and enforcement of liability and indemnification obligations arising from acts or events that occurred while this LGIA was in effect; and to permit

each Party to have access to the lands of the other Party pursuant to this LGIA or other applicable agreements, to disconnect, remove or salvage its own facilities and equipment.

Article 3. Regulatory Filings

- 3.1 Filing.** Transmission Provider shall file this LGIA (and any amendment hereto) with the appropriate Governmental Authority, if required. Interconnection Customer may request that any information so provided be subject to the confidentiality provisions of Article 22. If Interconnection Customer has executed this LGIA, or any amendment thereto, Interconnection Customer shall reasonably cooperate with Transmission Provider with respect to such filing and to provide any information reasonably requested by Transmission Provider needed to comply with applicable regulatory requirements.

Article 4. Scope of Service

- 4.1 Interconnection Product Options.** Interconnection Customer has selected the following (checked) type of Interconnection Service:

4.1.1 Energy Resource Interconnection Service.

4.1.1.1 The Product. Energy Resource Interconnection Service allows Interconnection Customer to connect the Large Generating Facility to the Transmission System and be eligible to deliver the Large Generating Facility's output using the existing firm or non-firm capacity of the Transmission System on an "as available" basis. To the extent Interconnection Customer wants to receive Energy Resource Interconnection Service, Transmission Provider shall construct facilities identified in Appendix A.

4.1.1.2 Transmission Delivery Service Implications. Under Energy Resource Interconnection Service, Interconnection Customer will be

eligible to inject power from the Large Generating Facility into and deliver power across the interconnecting Transmission Provider's Transmission System on an "as available" basis up to the amount of MWh identified in the applicable stability and steady state studies to the extent the upgrades initially required to qualify for Energy Resource Interconnection Service have been constructed. Where eligible to do so (e.g., PJM, ISO-NE, NYISO), Interconnection Customer may place a bid to sell into the market up to the maximum identified Large Generating Facility output, subject to any conditions specified in the interconnection service approval, and the Large Generating Facility will be dispatched to the extent Interconnection Customer's bid clears. In all other instances, no transmission delivery service from the Large Generating Facility is assured, but Interconnection Customer may obtain Point-to-Point Transmission Service, Network Integration Transmission Service, or be used for secondary network transmission service, pursuant to Transmission Provider's Tariff, up to the maximum output identified in the stability and steady state studies. In those instances, in order for Interconnection Customer to obtain the right to deliver or inject energy beyond the Large Generating Facility Point of Interconnection or to improve its ability to do so, transmission delivery service must be obtained pursuant to the provisions of Transmission Provider's Tariff. The Interconnection Customer's ability to inject its Large Generating Facility output beyond the Point of Interconnection, therefore, will

depend on the existing capacity of Transmission Provider's Transmission System at such time as a transmission service request is made that would accommodate such delivery. The provision of firm Point-to-Point Transmission Service or Network Integration Transmission Service may require the construction of additional Network Upgrades.

4.1.2 Network Resource Interconnection Service.

4.1.2.1 The Product. Transmission Provider must conduct the necessary studies and construct the Network Upgrades needed to integrate the Large Generating Facility (1) in a manner comparable to that in which Transmission Provider integrates its generating facilities to serve native load customers; or (2) in an ISO or RTO with market based congestion management, in the same manner as all Network Resources. To the extent Interconnection Customer wants to receive Network Resource Interconnection Service, Transmission Provider shall construct the facilities identified in Appendix A to this LGIA.

4.1.2.2 Transmission Delivery Service Implications. Network Resource Interconnection Service allows Interconnection Customer's Large Generating Facility to be designated by any Network Customer under the Tariff on Transmission Provider's Transmission System as a Network Resource, up to the Large Generating Facility's full output, on the same basis as existing Network Resources interconnected to Transmission Provider's Transmission System, and to be studied as a Network Resource on the assumption that such a designation will occur. Although Network Resource

Interconnection Service does not convey a reservation of transmission service, any Network Customer under the Tariff can utilize its network service under the Tariff to obtain delivery of energy from the interconnected Interconnection Customer's Large Generating Facility in the same manner as it accesses Network Resources. A Large Generating Facility receiving Network Resource Interconnection Service may also be used to provide Ancillary Services after technical studies and/or periodic analyses are performed with respect to the Large Generating Facility's ability to provide any applicable Ancillary Services, provided that such studies and analyses have been or would be required in connection with the provision of such Ancillary Services by any existing Network Resource. However, if an Interconnection Customer's Large Generating Facility has not been designated as a Network Resource by any load, it cannot be required to provide Ancillary Services except to the extent such requirements extend to all generating facilities that are similarly situated. The provision of Network Integration Transmission Service or firm Point-to-Point Transmission Service may require additional studies and the construction of additional upgrades. Because such studies and upgrades would be associated with a request for delivery service under the Tariff, cost responsibility for the studies and upgrades would be in accordance with FERC's policy for pricing transmission delivery services.

Network Resource Interconnection Service does not necessarily provide Interconnection Customer with the

capability to physically deliver the output of its Large Generating Facility to any particular load on Transmission Provider's Transmission System without incurring congestion costs. In the event of transmission constraints on Transmission Provider's Transmission System, Interconnection Customer's Large Generating Facility shall be subject to the applicable congestion management procedures in Transmission Provider's Transmission System in the same manner as Network Resources.

There is no requirement either at the time of study or interconnection, or at any point in the future, that Interconnection Customer's Large Generating Facility be designated as a Network Resource by a Network Service Customer under the Tariff or that Interconnection Customer identify a specific buyer (or sink). To the extent a Network Customer does designate the Large Generating Facility as a Network Resource, it must do so pursuant to Transmission Provider's Tariff.

Once an Interconnection Customer satisfies the requirements for obtaining Network Resource Interconnection Service, any future transmission service request for delivery from the Large Generating Facility within Transmission Provider's Transmission System of any amount of capacity and/or energy, up to the amount initially studied, will not require that any additional studies be performed or that any further upgrades associated with such Large Generating Facility be undertaken, regardless of whether or not such Large Generating Facility is ever designated by a Network Customer

as a Network Resource and regardless of changes in ownership of the Large Generating Facility. However, the reduction or elimination of congestion or redispatch costs may require additional studies and the construction of additional upgrades.

To the extent Interconnection Customer enters into an arrangement for long term transmission service for deliveries from the Large Generating Facility outside Transmission Provider's Transmission System, such request may require additional studies and upgrades in order for Transmission Provider to grant such request.

- 4.2 Provision of Service.** Transmission Provider shall provide Interconnection Service for the Large Generating Facility at the Point of Interconnection.
- 4.3 Performance Standards.** Each Party shall perform all of its obligations under this LGIA in accordance with Applicable Laws and Regulations, Applicable Reliability Standards, and Good Utility Practice, and to the extent a Party is required or prevented or limited in taking any action by such regulations and standards, such Party shall not be deemed to be in Breach of this LGIA for its compliance therewith. If such Party is a Transmission Provider or Transmission Owner, then that Party shall amend the LGIA and submit the amendment to FERC for approval.
- 4.4 No Transmission Delivery Service.** The execution of this LGIA does not constitute a request for, nor the provision of, any transmission delivery service under Transmission Provider's Tariff, and does not convey any right to deliver electricity to any specific customer or Point of Delivery.
- 4.5 Interconnection Customer Provided Services.** The services provided by Interconnection Customer under this LGIA are set forth in Article 9.6 and Article 13.5.1.

Interconnection Customer shall be paid for such services in accordance with Article 11.6.

**Article 5. Interconnection Facilities Engineering,
Procurement, and Construction**

5.1 Options. Unless otherwise mutually agreed to between the Parties, Interconnection Customer shall select the In-Service Date, Initial Synchronization Date, and Commercial Operation Date; and either the Standard Option or Alternate Option set forth below, and such dates and selected option shall be set forth in Appendix B, Milestones. At the same time, Interconnection Customer shall indicate whether it elects to exercise the Option to Build set forth in Article 5.1.3 below. If the dates designated by Interconnection Customer are not acceptable to Transmission Provider, Transmission Provider shall so notify Interconnection Customer within thirty (30) Calendar Days. Upon receipt of the notification that Interconnection Customer's designated dates are not acceptable to Transmission Provider, the Interconnection Customer shall notify Transmission Provider within thirty (30) Calendar Days whether it elects to exercise the Option to Build if it has not already elected to exercise the Option to Build.

5.1.1 Standard Option. Transmission Provider shall design, procure, and construct Transmission Provider's Interconnection Facilities and Network Upgrades, using Reasonable Efforts to complete Transmission Provider's Interconnection Facilities and Network Upgrades by the dates set forth in Appendix B, Milestones. Transmission Provider shall not be required to undertake any action which is inconsistent with its standard safety practices, its material and equipment specifications, its design criteria and construction procedures, its labor agreements, and Applicable Laws and Regulations. In the event Transmission Provider reasonably expects that it will not be able to complete Transmission Provider's Interconnection Facilities and Network Upgrades by the specified dates, Transmission Provider shall promptly provide written notice to Interconnection Customer and shall undertake Reasonable Efforts to meet the earliest dates thereafter.

5.1.2 Alternate Option. If the dates designated by Interconnection Customer are acceptable to Transmission Provider, Transmission Provider shall so notify Interconnection Customer within thirty (30) Calendar Days, and shall assume responsibility for the design, procurement and construction of Transmission Provider's Interconnection Facilities by the designated dates.

If Transmission Provider subsequently fails to complete Transmission Provider's Interconnection Facilities by the In-Service Date, to the extent necessary to provide back feed power; or fails to complete Network Upgrades by the Initial Synchronization Date to the extent necessary to allow for Trial Operation at full power output, unless other arrangements are made by the Parties for such Trial Operation; or fails to complete the Network Upgrades by the Commercial Operation Date, as such dates are reflected in Appendix B, Milestones; Transmission Provider shall pay Interconnection Customer liquidated damages in accordance with Article 5.3, Liquidated Damages, provided, however, the dates designated by Interconnection Customer shall be extended day for day for each day that the applicable RTO or ISO refuses to grant clearances to install equipment.

5.1.3 Option to Build. Interconnection Customer shall have the option to assume responsibility for the design, procurement and construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades on the dates specified in Article 5.1.2. Transmission Provider and Interconnection Customer must agree as to what constitutes Stand Alone Network Upgrades and identify such Stand Alone Network Upgrades in Appendix A. Except for Stand Alone Network Upgrades, Interconnection Customer shall have no right to construct Network Upgrades under this option.

5.1.4 Negotiated Option. If the dates designated by

interconnection Customer are not acceptable to Transmission Provider, the Parties shall in good faith attempt to negotiate terms and conditions (including revision of the specified dates and liquidated damages, the provision of incentives, or the procurement and construction of all facilities other than Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades if the Interconnection Customer elects to exercise the Option to Build under Article 5.1.3. If the Parties are unable to reach agreement on such terms and conditions, then, pursuant to Article 5.1.1 (Standard Option), Transmission Provider shall assume responsibility for the design, procurement and construction of all facilities other than Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades if the Interconnection Customer elects to exercise the Option to Build.

5.2 General Conditions Applicable to Option to Build. If Interconnection Customer assumes responsibility for the design, procurement and construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades,

- (1) Interconnection Customer shall engineer, procure equipment, and construct Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades (or portions thereof) using Good Utility Practice and using standards and specifications provided in advance by Transmission Provider;
- (2) Interconnection Customer's engineering, procurement and construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades shall comply with all requirements of law to which Transmission Provider would be subject in the engineering, procurement or construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades;
- (3) Transmission Provider shall review and approve

the engineering design, equipment acceptance tests, and the construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades;

- (4) prior to commencement of construction, Interconnection Customer shall provide to Transmission Provider a schedule for construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades, and shall promptly respond to requests for information from Transmission Provider;
- (5) at any time during construction, Transmission Provider shall have the right to gain unrestricted access to Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades and to conduct inspections of the same;
- (6) at any time during construction, should any phase of the engineering, equipment procurement, or construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades not meet the standards and specifications provided by Transmission Provider, Interconnection Customer shall be obligated to remedy deficiencies in that portion of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades;
- (7) Interconnection Customer shall indemnify Transmission Provider for claims arising from Interconnection Customer's construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades under the terms and procedures applicable to Article 18.1 Indemnity;
- (8) Interconnection Customer shall transfer control of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades to Transmission Provider;
- (9) Unless Parties otherwise agree, Interconnection

Customer shall transfer ownership of Transmission Provider's Interconnection Facilities and Stand-Alone Network Upgrades to Transmission Provider;

- (10) Transmission Provider shall approve and accept for operation and maintenance Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades to the extent engineered, procured, and constructed in accordance with this Article 5.2; and
- (11) Interconnection Customer shall deliver to Transmission Provider "as-built" drawings, information, and any other documents that are reasonably required by Transmission Provider to assure that the Interconnection Facilities and Stand-Alone Network Upgrades are built to the standards and specifications required by Transmission Provider.
- (12) If Interconnection Customer exercises the Option to Build pursuant to Article 5.1.3, Interconnection Customer shall pay Transmission Provider the agreed upon amount of [\$PLACEHOLDER] for Transmission Provider to execute the responsibilities enumerated to Transmission Provider under Article 5.2. Transmission Provider shall invoice Interconnection Customer for this total amount to be divided on a monthly basis pursuant to Article 12.

5.3 Liquidated Damages. The actual damages to Interconnection Customer, in the event Transmission Provider's Interconnection Facilities or Network Upgrades are not completed by the dates designated by Interconnection Customer and accepted by Transmission Provider pursuant to subparagraphs 5.1.2 or 5.1.4, above, may include Interconnection Customer's fixed operation and maintenance costs and lost opportunity costs. Such actual damages are uncertain and impossible to determine at this time. Because of such uncertainty, any liquidated damages paid by Transmission Provider to Interconnection Customer in the event that Transmission Provider does not complete any portion of Transmission Provider's Interconnection Facilities or Network Upgrades by the applicable dates,

shall be an amount equal to ½ of 1 percent per day of the actual cost of Transmission Provider's Interconnection Facilities and Network Upgrades, in the aggregate, for which Transmission Provider has assumed responsibility to design, procure and construct.

However, in no event shall the total liquidated damages exceed 20 percent of the actual cost of Transmission Provider's Interconnection Facilities and Network Upgrades for which Transmission Provider has assumed responsibility to design, procure, and construct. The foregoing payments will be made by Transmission Provider to Interconnection Customer as just compensation for the damages caused to Interconnection Customer, which actual damages are uncertain and impossible to determine at this time, and as reasonable liquidated damages, but not as a penalty or a method to secure performance of this LGIA. Liquidated damages, when the Parties agree to them, are the exclusive remedy for the Transmission Provider's failure to meet its schedule.

No liquidated damages shall be paid to Interconnection Customer if: (1) Interconnection Customer is not ready to commence use of Transmission Provider's Interconnection Facilities or Network Upgrades to take the delivery of power for the Large Generating Facility's Trial Operation or to export power from the Large Generating Facility on the specified dates, unless Interconnection Customer would have been able to commence use of Transmission Provider's Interconnection Facilities or Network Upgrades to take the delivery of power for Large Generating Facility's Trial Operation or to export power from the Large Generating Facility, but for Transmission Provider's delay; (2) Transmission Provider's failure to meet the specified dates is the result of the action or inaction of Interconnection Customer or any other Interconnection Customer who has entered into an LGIA with Transmission Provider or any cause beyond Transmission Provider's reasonable control or reasonable ability to cure; (3) the interconnection Customer has assumed responsibility for the design, procurement and construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades; or (4) the Parties have otherwise agreed.

5.4 Power System Stabilizers. The Interconnection Customer shall procure, install, maintain and operate Power System

Stabilizers in accordance with the guidelines and procedures established by the Applicable Reliability Council. Transmission Provider reserves the right to reasonably establish minimum acceptable settings for any installed Power System Stabilizers, subject to the design and operating limitations of the Large Generating Facility. If the Large Generating Facility's Power System Stabilizers are removed from service or not capable of automatic operation, Interconnection Customer shall immediately notify Transmission Provider's system operator, or its designated representative. The requirements of this paragraph shall not apply to wind generators.

5.5 Equipment Procurement. If responsibility for construction of Transmission Provider's Interconnection Facilities or Network Upgrades is to be borne by Transmission Provider, then Transmission Provider shall commence design of Transmission Provider's Interconnection Facilities or Network Upgrades and procure necessary equipment as soon as practicable after all of the following conditions are satisfied, unless the Parties otherwise agree in writing:

- 5.5.1** Transmission Provider has completed the Facilities Study pursuant to the Facilities Study Agreement;
- 5.5.2** Transmission Provider has received written authorization to proceed with design and procurement from Interconnection Customer by the date specified in Appendix B, Milestones; and
- 5.5.3** Interconnection Customer has provided security to Transmission Provider in accordance with Article 11.5 by the dates specified in Appendix B, Milestones.

5.6 Construction Commencement. Transmission Provider shall commence construction of Transmission Provider's Interconnection Facilities and Network Upgrades for which it is responsible as soon as practicable after the following additional conditions are satisfied:

- 5.6.1** Approval of the appropriate Governmental Authority has been obtained for any facilities requiring regulatory approval;

- 5.6.2** Necessary real property rights and rights-of-way have been obtained, to the extent required for the construction of a discrete aspect of Transmission Provider's Interconnection Facilities and Network Upgrades;
- 5.6.3** Transmission Provider has received written authorization to proceed with construction from Interconnection Customer by the date specified in Appendix B, Milestones; and
- 5.6.4** Interconnection Customer has provided security to Transmission Provider in accordance with Article 11.5 by the dates specified in Appendix B, Milestones.
- 5.7 Work Progress.** The Parties will keep each other advised periodically as to the progress of their respective design, procurement and construction efforts. Either Party may, at any time, request a progress report from the other Party. If, at any time, Interconnection Customer determines that the completion of Transmission Provider's Interconnection Facilities will not be required until after the specified In-Service Date, Interconnection Customer will provide written notice to Transmission Provider of such later date upon which the completion of Transmission Provider's Interconnection Facilities will be required.
- 5.8 Information Exchange.** As soon as reasonably practicable after the Effective Date, the Parties shall exchange information regarding the design and compatibility of the Parties' Interconnection Facilities and compatibility of the Interconnection Facilities with Transmission Provider's Transmission System, and shall work diligently and in good faith to make any necessary design changes.
- 5.9 Other Interconnection Options.**
- 5.9.1 Limited Operation.** If any of Transmission Provider's Interconnection Facilities or Network Upgrades are not reasonably expected to be completed prior to the Commercial Operation Date of the Large Generating Facility, Transmission Provider shall, upon the request and at the expense of Interconnection Customer,

perform operating studies on a timely basis to determine the extent to which the Large Generating Facility and Interconnection Customer's Interconnection Facilities may operate prior to the completion of Transmission Provider's Interconnection Facilities or Network Upgrades consistent with Applicable Laws and Regulations, Applicable Reliability Standards, Good Utility Practice, and this LGIA. Transmission Provider shall permit Interconnection Customer to operate the Large Generating Facility and Interconnection Customer's Interconnection Facilities in accordance with the results of such studies.

5.9.2 Provisional Interconnection Service. Upon the request of Interconnection Customer, and prior to completion of requisite Interconnection Facilities, Network Upgrades, Distribution Upgrades, or System Protection Facilities Transmission Provider may execute a Provisional Large Generator Interconnection Agreement or Interconnection Customer may request the filing of an unexecuted Provisional Large Generator Interconnection Agreement with the Interconnection Customer for limited Interconnection Service at the discretion of Transmission Provider based upon an evaluation that will consider the results of available studies. Transmission Provider shall determine, through available studies or additional studies as necessary, whether stability, short circuit, thermal, and/or voltage issues would arise if Interconnection Customer interconnects without modifications to the Generating Facility or Transmission System. Transmission Provider shall determine whether any Interconnection Facilities, Network Upgrades, Distribution Upgrades, or System Protection Facilities that are necessary to meet the requirements of NERC, or any applicable Regional Entity for the interconnection of a new, modified and/or expanded Generating Facility are in place prior to the commencement of Interconnection Service from the Generating Facility. Where available studies indicate that such, Interconnection Facilities, Network Upgrades, Distribution

Upgrades, and/or System Protection Facilities that are required for the interconnection of a new, modified and/or expanded Generating Facility are not currently in place, Transmission Provider will perform a study, at the Interconnection Customer's expense, to confirm the facilities that are required for Provisional Interconnection Service. The maximum permissible output of the Generating Facility in the Provisional Large Generator Interconnection Agreement shall be studied and updated as system conditions warrant (in the determination of the Transmission Provider in its discretion) but no less frequently than annually. Interconnection Customer assumes all risk and liabilities with respect to changes between the Provisional Large Generator Interconnection Agreement and the Large Generator Interconnection Agreement, including changes in output limits and Interconnection Facilities, Network Upgrades, Distribution Upgrades, and/or System Protection Facilities cost responsibilities.

5.10 Interconnection Customer's Interconnection Facilities ('ICIF'). Interconnection Customer shall, at its expense, design, procure, construct, own and install the ICIF, as set forth in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades.

5.10.1 Interconnection Customer's Interconnection Facility Specifications. Interconnection Customer shall submit initial specifications for the ICIF, including System Protection Facilities, to Transmission Provider at least one hundred eighty (180) Calendar Days prior to the Initial Synchronization Date; and final specifications for review and comment at least ninety (90) Calendar Days prior to the Initial Synchronization Date. Transmission Provider shall review such specifications to ensure that the ICIF are compatible with the technical specifications, operational control, and safety requirements of Transmission Provider and comment on such specifications within thirty (30) Calendar Days of Interconnection Customer's submission. All specifications

provided hereunder shall be deemed confidential.

5.10.2 Transmission Provider's Review. Transmission Provider's review of Interconnection Customer's final specifications shall not be construed as confirming, endorsing, or providing a warranty as to the design, fitness, safety, durability or reliability of the Large Generating Facility, or the ICIF. Interconnection Customer shall make such changes to the ICIF as may reasonably be required by Transmission Provider, in accordance with Good Utility Practice, to ensure that the ICIF are compatible with the technical specifications, operational control, and safety requirements of Transmission Provider.

5.10.3 ICIF Construction. The ICIF shall be designed and constructed in accordance with Good Utility Practice. Within one hundred twenty (120) Calendar Days after the Commercial Operation Date, unless the Parties agree on another mutually acceptable deadline, Interconnection Customer shall deliver to Transmission Provider "as-built" drawings, information and documents for the ICIF, such as: a one-line diagram, a site plan showing the Large Generating Facility and the ICIF, plan and elevation drawings showing the layout of the ICIF, a relay functional diagram, relaying AC and DC schematic wiring diagrams and relay settings for all facilities associated with Interconnection Customer's step-up transformers, the facilities connecting the Large Generating Facility to the step-up transformers and the ICIF, and the impedances (determined by factory tests) for the associated step-up transformers and the Large Generating Facility. The Interconnection Customer shall provide Transmission Provider specifications for the excitation system, automatic voltage regulator, Large Generating Facility control and protection settings, transformer tap settings, and communications, if applicable.

5.11 Transmission Provider's Interconnection Facilities Construction. Transmission Provider's Interconnection Facilities shall be designed and constructed in accordance with Good Utility Practice. Upon request, within one hundred twenty (120) Calendar Days after the Commercial Operation Date, unless the Parties agree on another mutually acceptable deadline, Transmission Provider shall deliver to Interconnection Customer the following "as-built" drawings, information and documents for Transmission Provider's Interconnection Facilities [include appropriate drawings and relay diagrams].

Transmission Provider will obtain control of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades upon completion of such facilities.

5.12 Access Rights. Upon reasonable notice and supervision by a Party, and subject to any required or necessary regulatory approvals, a Party ("Granting Party") shall furnish at no cost to the other Party ("Access Party") any rights of use, licenses, rights of way and easements with respect to lands owned or controlled by the Granting Party, its agents (if allowed under the applicable agency agreement), or any Affiliate, that are necessary to enable the Access Party to obtain ingress and egress to construct, operate, maintain, repair, test (or witness testing), inspect, replace or remove facilities and equipment to: (i) interconnect the Large Generating Facility with the Transmission System; (ii) operate and maintain the Large Generating Facility, the Interconnection Facilities and the Transmission System; and (iii) disconnect or remove the Access Party's facilities and equipment upon termination of this LGIA. In exercising such licenses, rights of way and easements, the Access Party shall not unreasonably disrupt or interfere with normal operation of the Granting Party's business and shall adhere to the safety rules and procedures established in advance, as may be changed from time to time, by the Granting Party and provided to the Access Party.

5.13 Lands of Other Property Owners. If any part of Transmission Provider or Transmission Owner's Interconnection Facilities and/or Network Upgrades is to be installed on property owned by persons other than Interconnection Customer or Transmission Provider or Transmission Owner, Transmission Provider or Transmission

Owner shall at Interconnection Customer's expense use efforts, similar in nature and extent to those that it typically undertakes on its own behalf or on behalf of its Affiliates, including use of its eminent domain authority, and to the extent consistent with state law, to procure from such persons any rights of use, licenses, rights of way and easements that are necessary to construct, operate, maintain, test, inspect, replace or remove Transmission Provider or Transmission Owner's Interconnection Facilities and/or Network Upgrades upon such property.

5.14 Permits. Transmission Provider or Transmission Owner and Interconnection Customer shall cooperate with each other in good faith in obtaining all permits, licenses and authorizations that are necessary to accomplish the interconnection in compliance with Applicable Laws and Regulations. With respect to this paragraph, Transmission Provider or Transmission Owner shall provide permitting assistance to Interconnection Customer comparable to that provided to Transmission Provider's own, or an Affiliate's generation.

5.15 Early Construction of Base Case Facilities. Interconnection Customer may request Transmission Provider to construct, and Transmission Provider shall construct, using Reasonable Efforts to accommodate Interconnection Customer's In-Service Date, all or any portion of any Network Upgrades required for Interconnection Customer to be interconnected to the Transmission System which are included in the Base Case of the Facilities Study for Interconnection Customer, and which also are required to be constructed for another Interconnection Customer, but where such construction is not scheduled to be completed in time to achieve Interconnection Customer's In-Service Date.

5.16 Suspension. Interconnection Customer reserves the right, upon written notice to Transmission Provider, to suspend at any time all work by Transmission Provider associated with the construction and installation of Transmission Provider's Interconnection Facilities and/or Network Upgrades required under this LGIA with the condition that Transmission System shall be left in a safe and reliable condition in accordance with Good Utility Practice and Transmission Provider's safety and reliability criteria. In such event, Interconnection Customer shall be

responsible for all reasonable and necessary costs which Transmission Provider (i) has incurred pursuant to this LGIA prior to the suspension and (ii) incurs in suspending such work, including any costs incurred to perform such work as may be necessary to ensure the safety of persons and property and the integrity of the Transmission System during such suspension and, if applicable, any costs incurred in connection with the cancellation or suspension of material, equipment and labor contracts which Transmission Provider cannot reasonably avoid; provided, however, that prior to canceling or suspending any such material, equipment or labor contract, Transmission Provider shall obtain Interconnection Customer's authorization to do so. Interconnection Customer shall also be obligated to pay any applicable penalties associated with the suspension, pursuant to Section 38.7 of Transmission Provider's OATT. Transmission Provider shall invoice Interconnection Customer for such costs pursuant to Article 12 and shall use due diligence to minimize its costs.

Except as provided in Article 5.16.2 below, in the event Interconnection Customer suspends work by Transmission Provider required under this LGIA pursuant to this Article 5.16, and has not requested Transmission Provider to recommence the work required under this LGIA on or before the expiration of three (3) years following commencement of such suspension, this LGIA shall be deemed terminated. The three-year period shall begin on the date the suspension is requested, or the date of the written notice to Transmission Provider, if no effective date is specified.

5.16.1 Effect of Missed Interconnection Customer LGIA Milestones.

If Interconnection Customer fails to provide notice of suspension pursuant to Article 5.16, and Interconnection Customer fails to fulfill or complete any Interconnection Customer LGIA Milestone provided in Appendix B ("LGIA Milestone"), this constitutes a Breach under this LGIA. Depending upon the consequences of the Breach and effectiveness of the cure pursuant to Article 17, Transmission Provider's LGIA Milestones may be revised, following consultation with Interconnection Customer, consistent with Reasonable Efforts, and in consideration of all relevant circumstances. Parties shall employ Reasonable Efforts to maintain their remaining respective LGIA Milestones.

5.16.2 Effect of Suspension; Parties Obligations. In the event that Interconnection Customer suspends work pursuant to this Article 5.16, the applicable construction duration, timelines and schedules set forth in Appendix B shall be suspended during the period of suspension. Should Interconnection Customer thereafter request that work be recommenced, Appendix A and Appendix B may be revised to account for construction sequencing and modified milestones. If the Commercial Operation Date is extended beyond three (3) cumulative years described in Section 39.4.5 of the LGIP and Article 2.3.1 of this LGIA, such an extension may be considered a Material Modification and result in the termination of the LGIA under Article 2.3.1. Interconnection Customer is required to maintain Site Control while this LGIA is in effect, including during suspension.

5.17 Taxes.

5.17.1 Interconnection Customer Payments Not Taxable.

The Parties intend that all payments or property transfers made by Interconnection Customer to Transmission Provider for the installation of Transmission Provider's Interconnection Facilities and the Network Upgrades shall be non-taxable, either as contributions to capital, or as an advance, in accordance with the Internal Revenue Code and any applicable state income tax laws and shall not be taxable as contributions in aid of construction or otherwise under the Internal Revenue Code and any applicable state income tax laws.

5.17.2 Representations and Covenants. In accordance with IRS Notice 2001-82 and IRS Notice 88-129, Interconnection Customer represents and covenants that (i) ownership of the electricity generated at the Large Generating Facility will pass to another party prior to the transmission of the electricity on the Transmission System, (ii) for income tax purposes, the amount of any payments and the cost of any property transferred to Transmission Provider for Transmission Provider's Interconnection Facilities will be capitalized by

Interconnection Customer as an intangible asset and recovered using the straight-line method over a useful life of twenty (20) years, and (iii) any portion of Transmission Provider's Interconnection Facilities that is a "dual-use intertie," within the meaning of IRS Notice 88-129, is reasonably expected to carry only a de minimis amount of electricity in the direction of the Large Generating Facility. For this purpose, "de minimis amount" means no more than 5 percent of the total power flows in both directions, calculated in accordance with the "5 percent test" set forth in IRS Notice 88-129. This is not intended to be an exclusive list of the relevant conditions that must be met to conform to IRS requirements for non-taxable treatment.

At Transmission Provider's request, Interconnection Customer shall provide Transmission Provider with a report from an independent engineer confirming its representation in clause (iii), above. Transmission Provider represents and covenants that the cost of Transmission Provider's Interconnection Facilities paid for by Interconnection Customer will have no net effect on the base upon which rates are determined.

5.17.3 Indemnification for the Cost Consequences of Current Tax Liability Imposed Upon the Transmission Provider. Notwithstanding Article 5.17.1, Interconnection Customer shall protect, indemnify and hold harmless Transmission Provider from the cost consequences of any current tax liability imposed against Transmission Provider as the result of payments or property transfers made by Interconnection Customer to Transmission Provider under this LGIA for Interconnection Facilities, as well as any interest and penalties, other than interest and penalties attributable to any delay caused by Transmission Provider.

Transmission Provider shall not include a gross-up for the cost consequences of any

current tax liability in the amounts it charges Interconnection Customer under this LGIA unless (i) Transmission Provider has determined, in good faith, that the payments or property transfers made by Interconnection Customer to Transmission Provider should be reported as income subject to taxation or (ii) any Governmental Authority directs Transmission Provider to report payments or property as income subject to taxation; provided, however, that Transmission Provider may require Interconnection Customer to provide security for Interconnection Facilities, in a form reasonably acceptable to Transmission Provider (such as a parental guarantee or a letter of credit), in an amount equal to the cost consequences of any current tax liability under this Article 5.17. Interconnection Customer shall reimburse Transmission Provider for such costs on a fully grossed-up basis, in accordance with Article 5.17.4, within thirty (30) Calendar Days of receiving written notification from Transmission Provider of the amount due, including detail about how the amount was calculated.

The indemnification obligation shall terminate at the earlier of (1) the expiration of the ten year testing period and the applicable statute of limitation, as it may be extended by Transmission Provider upon request of the IRS, to keep these years open for audit or adjustment, or (2) the occurrence of a subsequent taxable event and the payment of any related indemnification obligations as contemplated by this Article 5.17.

5.17.4 Tax Gross-Up Amount. Interconnection Customer's liability for the cost consequences of any current tax liability under this Article 5.17 shall be calculated on a fully grossed-up basis. Except as may otherwise be agreed to by the parties, this means that Interconnection Customer will pay Transmission Provider, in addition to the amount paid for the Interconnection Facilities and Network Upgrades, an amount equal to (1) the current

taxes imposed on Transmission Provider ("Current Taxes") on the excess of (a) the gross income realized by Transmission Provider as a result of payments or property transfers made by Interconnection Customer to Transmission Provider under this LGIA (without regard to any payments under this Article 5.17) (the "Gross Income Amount") over (b) the present value of future tax deductions for depreciation that will be available as a result of such payments or property transfers (the "Present Value Depreciation Amount"), plus (2) an additional amount sufficient to permit Transmission Provider to receive and retain, after the payment of all Current Taxes, an amount equal to the net amount described in clause (1).

For this purpose, (i) Current Taxes shall be computed based on Transmission Provider's composite federal and state tax rates at the time the payments or property transfers are received and Transmission Provider will be treated as being subject to tax at the highest marginal rates in effect at that time (the "Current Tax Rate"), and (ii) the Present Value Depreciation Amount shall be computed by discounting Transmission Provider's anticipated tax depreciation deductions as a result of such payments or property transfers by Transmission Provider's current weighted average cost of capital. Thus, the formula for calculating Interconnection Customer's liability to Transmission Owner pursuant to this Article 5.17.4 can be expressed as follows: $(\text{Current Tax Rate} \times (\text{Gross Income Amount} - \text{Present Value of Tax Depreciation})) / (1 - \text{Current Tax Rate})$. Interconnection Customer's estimated tax liability in the event taxes are imposed shall be stated in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades.

5.17.5 Private Letter Ruling or Change or Clarification of Law. At Interconnection Customer's request and expense, Transmission Provider shall file with the IRS a request for

a private letter ruling as to whether any property transferred or sums paid, or to be paid, by Interconnection Customer to Transmission Provider under this LGIA are subject to federal income taxation.

Interconnection Customer will prepare the initial draft of the request for a private letter ruling, and will certify under penalties of perjury that all facts represented in such request are true and accurate to the best of Interconnection Customer's knowledge.

Transmission Provider and Interconnection Customer shall cooperate in good faith with respect to the submission of such request.

Transmission Provider shall keep Interconnection Customer fully informed of the status of such request for a private letter ruling and shall execute either a privacy act waiver or a limited power of attorney, in a form acceptable to the IRS, that authorizes Interconnection Customer to participate in all discussions with the IRS regarding such request for a private letter ruling. Transmission Provider shall allow Interconnection Customer to attend all meetings with IRS officials about the request and shall permit Interconnection Customer to prepare the initial drafts of any follow-up letters in connection with the request.

5.17.6 Subsequent Taxable Events. If, within 10 years from the date on which the relevant Transmission Provider's Interconnection Facilities are placed in service, (i) Interconnection Customer Breaches the covenants contained in Article 5.17.2, (ii) a "disqualification event" occurs within the meaning of IRS Notice 88-129, or (iii) this LGIA terminates and Transmission Provider retains ownership of the Interconnection Facilities and Network Upgrades, Interconnection Customer shall pay a tax gross-up for the cost consequences of any current tax liability imposed on Transmission Provider, calculated using the methodology described in Article 5.17.4 and in accordance with IRS

Notice 90-60.

5.17.7 Contests. In the event any Governmental Authority determines that Transmission Provider's receipt of payments or property constitutes income that is subject to taxation, Transmission Provider shall notify Interconnection Customer, in writing, within thirty (30) Calendar Days of receiving notification of such determination by a Governmental Authority. Upon the timely written request by Interconnection Customer and at Interconnection Customer's sole expense, Transmission Provider may appeal, protest, seek abatement of, or otherwise oppose such determination. Upon Interconnection Customer's written request and sole expense, Transmission Provider may file a claim for refund with respect to any taxes paid under this Article 5.17, whether or not it has received such a determination. Transmission Provider reserves the right to make all decisions with regard to the prosecution of such appeal, protest, abatement or other contest, including the selection of counsel and compromise or settlement of the claim, but Transmission Provider shall keep Interconnection Customer informed, shall consider in good faith suggestions from Interconnection Customer about the conduct of the contest, and shall reasonably permit Interconnection Customer or an Interconnection Customer representative to attend contest proceedings.

Interconnection Customer shall pay to Transmission Provider on a periodic basis, as invoiced by Transmission Provider, Transmission Provider's documented reasonable costs of prosecuting such appeal, protest, abatement or other contest. At any time during the contest, Transmission Provider may agree to a settlement either with Interconnection Customer's consent or after obtaining written advice from nationally-recognized tax counsel, selected by Transmission Provider, but reasonably acceptable to Interconnection Customer, that the proposed settlement represents a reasonable

settlement given the hazards of litigation. Interconnection Customer's obligation shall be based on the amount of the settlement agreed to by Interconnection Customer, or if a higher amount, so much of the settlement that is supported by the written advice from nationally-recognized tax counsel selected under the terms of the preceding sentence. The settlement amount shall be calculated on a fully grossed-up basis to cover any related cost consequences of the current tax liability. Any settlement without Interconnection Customer's consent or such written advice will relieve Interconnection Customer from any obligation to indemnify Transmission Provider for the tax at issue in the contest.

5.17.8 Refund. In the event that (a) a private letter ruling is issued to Transmission Provider which holds that any amount paid or the value of any property transferred by Interconnection Customer to Transmission Provider under the terms of this LGIA is not subject to federal income taxation, (b) any legislative change or administrative announcement, notice, ruling or other determination makes it reasonably clear to Transmission Provider in good faith that any amount paid or the value of any property transferred by Interconnection Customer to Transmission Provider under the terms of this LGIA is not taxable to Transmission Provider, (c) any abatement, appeal, protest, or other contest results in a determination that any payments or transfers made by Interconnection Customer to Transmission Provider are not subject to federal income tax, or (d) if Transmission Provider receives a refund from any taxing authority for any overpayment of tax attributable to any payment or property transfer made by Interconnection Customer to Transmission Provider pursuant to this LGIA, Transmission Provider shall promptly refund to Interconnection Customer the following:

- (i) any payment made by Interconnection Customer under this Article 5.17 for taxes that is attributable to the

amount determined to be non-taxable,
together with interest thereon,

- (ii) interest on any amounts paid by Interconnection Customer to Transmission Provider for such taxes which Transmission Provider did not submit to the taxing authority, calculated in accordance with the methodology set forth in FERC's regulations at 18 CFR §35.19a(a)(2)(iii) from the date payment was made by Interconnection Customer to the date Transmission Provider refunds such payment to Interconnection Customer, and
- (iii) with respect to any such taxes paid by Transmission Provider, any refund or credit Transmission Provider receives or to which it may be entitled from any Governmental Authority, interest (or that portion thereof attributable to the payment described in clause (i), above) owed to Transmission Provider for such overpayment of taxes (including any reduction in interest otherwise payable by Transmission Provider to any Governmental Authority resulting from an offset or credit); provided, however, that Transmission Provider will remit such amount promptly to Interconnection Customer only after and to the extent that Transmission Provider has received a tax refund, credit or offset from any Governmental Authority for any applicable overpayment of income tax related to Transmission Provider's Interconnection Facilities.

The intent of this provision is to leave the Parties, to the extent practicable, in the event that no taxes are due with respect to any payment for Interconnection Facilities and Network Upgrades hereunder, in the same position they would have been in had no such

tax payments been made.

5.17.9 Taxes Other Than Income Taxes. Upon the timely request by Interconnection Customer, and at Interconnection Customer's sole expense, Transmission Provider may appeal, protest, seek abatement of, or otherwise contest any tax (other than federal or state income tax) asserted or assessed against Transmission Provider for which Interconnection Customer may be required to reimburse Transmission Provider under the terms of this LGIA. Interconnection Customer shall pay to Transmission Provider on a periodic basis, as invoiced by Transmission Provider, Transmission Provider's documented reasonable costs of prosecuting such appeal, protest, abatement, or other contest. Interconnection Customer and Transmission Provider shall cooperate in good faith with respect to any such contest. Unless the payment of such taxes is a prerequisite to an appeal or abatement or cannot be deferred, no amount shall be payable by Interconnection Customer to Transmission Provider for such taxes until they are assessed by a final, non-appealable order by any court or agency of competent jurisdiction. In the event that a tax payment is withheld and ultimately due and payable after appeal, Interconnection Customer will be responsible for all taxes, interest and penalties, other than penalties attributable to any delay caused by Transmission Provider.

5.17.10 Transmission Owners Who Are Not Transmission Providers. If Transmission Provider is not the same entity as the Transmission Owner, then (i) all references in this Article 5.17 to Transmission Provider shall be deemed also to refer to and to include the Transmission Owner, as appropriate, and (ii) this LGIA shall not become effective until such Transmission Owner shall have agreed in writing to assume all of the duties and obligations of Transmission Provider under this Article 5.17 of this LGIA.

5.18 Tax Status. Each Party shall cooperate with the other to maintain the other Party's tax status. Nothing in this

LGIA is intended to adversely affect any Transmission Provider's tax exempt status with respect to the issuance of bonds including, but not limited to, Local Furnishing Bonds.

5.19 Modification.

5.19.1 General. Either Party may undertake modifications to its facilities. If a Party plans to undertake a modification that reasonably may be expected to affect the other Party's facilities, that Party shall provide to the other Party sufficient information regarding such modification so that the other Party may evaluate the potential impact of such modification prior to commencement of the work. Such information shall be deemed to be confidential hereunder and shall include information concerning the timing of such modifications and whether such modifications are expected to interrupt the flow of electricity from the Large Generating Facility. The Party desiring to perform such work shall provide the relevant drawings, plans, and specifications to the other Party at least ninety (90) Calendar Days in advance of the commencement of the work or such shorter period upon which the Parties may agree, which agreement shall not unreasonably be withheld, conditioned or delayed.

In the case of Large Generating Facility modifications that do not require Interconnection Customer to submit an Interconnection Request, Transmission Provider shall provide, within thirty (30) Calendar Days (or such other time as the Parties may agree), an estimate of any additional modifications to the Transmission System, Transmission Provider's Interconnection Facilities or Network Upgrades necessitated by such Interconnection Customer modification and a good faith estimate of the costs thereof.

5.19.2 Standards. Any additions, modifications, or replacements made to a Party's facilities shall be designed, constructed and operated in

accordance with this LGIA and Good Utility Practice.

- 5.19.3 Modification Costs.** Interconnection Customer shall not be directly assigned for the costs of any additions, modifications, or replacements that Transmission Provider makes to Transmission Provider's Interconnection Facilities or the Transmission System to facilitate the interconnection of a third party to Transmission Provider's Interconnection Facilities or the Transmission System, or to provide transmission service to a third party under Transmission Provider's Tariff. Interconnection Customer shall be responsible for the costs of any additions, modifications, or replacements to Interconnection Customer's Interconnection Facilities that may be necessary to maintain or upgrade such Interconnection Customer's Interconnection Facilities consistent with Applicable Laws and Regulations, Applicable Reliability Standards or Good Utility Practice.

Article 6. Testing and Inspection

- 6.1 Pre-Commercial Operation Date Testing and Modifications.** Prior to the Commercial Operation Date, Transmission Provider shall test Transmission Provider's Interconnection Facilities and Network Upgrades and Interconnection Customer shall test the Large Generating Facility and Interconnection Customer's Interconnection Facilities to ensure their safe and reliable operation. Similar testing may be required after initial operation. Each Party shall make any modifications to its facilities that are found to be necessary as a result of such testing. Interconnection Customer shall bear the cost of all such testing and modifications. Interconnection Customer shall generate test energy at the Large Generating Facility only if it has arranged for the delivery of such test energy.
- 6.2 Post-Commercial Operation Date Testing and Modifications.** Each Party shall at its own expense perform routine inspection and testing of its facilities and equipment in accordance with Good Utility Practice as may be necessary to ensure the continued interconnection of the Large

Generating Facility with the Transmission System in a safe and reliable manner. Each Party shall have the right, upon advance written notice, to require reasonable additional testing of the other Party's facilities, at the requesting Party's expense, as may be in accordance with Good Utility Practice.

- 6.3 Right to Observe Testing.** Each Party shall notify the other Party in advance of its performance of tests of its Interconnection Facilities. The other Party has the right, at its own expense, to observe such testing.
- 6.4 Right to Inspect.** Each Party shall have the right, but shall have no obligation to: (i) observe the other Party's tests and/or inspection of any of its System Protection Facilities and other protective equipment, including Power System Stabilizers; (ii) review the settings of the other Party's System Protection Facilities and other protective equipment; and (iii) review the other Party's maintenance records relative to the Interconnection Facilities, the System Protection Facilities and other protective equipment. A Party may exercise these rights from time to time as it deems necessary upon reasonable notice to the other Party. The exercise or non-exercise by a Party of any such rights shall not be construed as an endorsement or confirmation of any element or condition of the Interconnection Facilities or the System Protection Facilities or other protective equipment or the operation thereof, or as a warranty as to the fitness, safety, desirability, or reliability of same. Any information that a Party obtains through the exercise of any of its rights under this Article 6.4 shall be deemed to be Confidential Information and treated pursuant to Article 22 of this LGIA.

Article 7. Metering

- 7.1 General.** Each Party shall comply with the Applicable Reliability Council requirements. Unless otherwise agreed by the Parties, Transmission Provider shall install Metering Equipment at the Point of Interconnection prior to any operation of the Large Generating Facility and shall own, operate, test and maintain such Metering Equipment. Power flows to and from the Large Generating Facility shall be measured at or, at Transmission Provider's option, compensated to, the Point of Interconnection. Transmission Provider shall provide

metering quantities, in analog and/or digital form, to Interconnection Customer upon request. Interconnection Customer shall bear all reasonable documented costs associated with the purchase, installation, operation, testing and maintenance of the Metering Equipment.

7.2 Check Meters. Interconnection Customer, at its option and expense, may install and operate, on its premises and on its side of the Point of Interconnection, one or more check meters to check Transmission Provider's meters. Such check meters shall be for check purposes only and shall not be used for the measurement of power flows for purposes of this LGIA, except as provided in Article 7.4 below. The check meters shall be subject at all reasonable times to inspection and examination by Transmission Provider or its designee. The installation, operation and maintenance thereof shall be performed entirely by Interconnection Customer in accordance with Good Utility Practice.

7.3 Standards. Transmission Provider shall install, calibrate, and test revenue quality Metering Equipment in accordance with applicable ANSI standards.

7.4 Testing of Metering Equipment. Transmission Provider shall inspect and test all Transmission Provider-owned Metering Equipment upon installation and at least once every two (2) years thereafter. If requested to do so by Interconnection Customer, Transmission Provider shall, at Interconnection Customer's expense, inspect or test Metering Equipment more frequently than every two (2) years. Transmission Provider shall give reasonable notice of the time when any inspection or test shall take place, and Interconnection Customer may have representatives present at the test or inspection. If at any time Metering Equipment is found to be inaccurate or defective, it shall be adjusted, repaired or replaced at Interconnection Customer's expense, in order to provide accurate metering, unless the inaccuracy or defect is due to Transmission Provider's failure to maintain, then Transmission Provider shall pay. If Metering Equipment fails to register, or if the measurement made by Metering Equipment during a test varies by more than two percent from the measurement made by the standard meter used in the test, Transmission Provider shall adjust the measurements by correcting all measurements for the period during which Metering Equipment was in error by using

Interconnection Customer's check meters, if installed. If no such check meters are installed or if the period cannot be reasonably ascertained, the adjustment shall be for the period immediately preceding the test of the Metering Equipment equal to one-half the time from the date of the last previous test of the Metering Equipment.

- 7.5 Metering Data.** At Interconnection Customer's expense, the metered data shall be telemetered to one or more locations designated by Transmission Provider and one or more locations designated by Interconnection Customer. Such telemetered data shall be used, under normal operating conditions, as the official measurement of the amount of energy delivered from the Large Generating Facility to the Point of Interconnection.

Article 8. Communications

- 8.1 Interconnection Customer Obligations.** Interconnection Customer shall maintain satisfactory operating communications with Transmission Provider's Transmission System dispatcher or representative designated by Transmission Provider. Interconnection Customer shall provide standard voice line, dedicated voice line and facsimile communications at its Large Generating Facility control room or central dispatch facility through use of either the public telephone system, or a voice communications system that does not rely on the public telephone system. Interconnection Customer shall also provide the dedicated data circuit(s) necessary to provide Interconnection Customer data to Transmission Provider as set forth in Appendix D, Security Arrangements Details. The data circuit(s) shall extend from the Large Generating Facility to the location(s) specified by Transmission Provider. Any required maintenance of such communications equipment shall be performed by Interconnection Customer. Operational communications shall be activated and maintained under, but not be limited to, the following events: system paralleling or separation, scheduled and unscheduled shutdowns, equipment clearances, and hourly and daily load data.
- 8.2 Remote Terminal Unit.** Prior to the Initial Synchronization Date of the Large Generating Facility, a Remote Terminal Unit, or equivalent data collection and transfer equipment acceptable to the Parties, shall be installed by Interconnection Customer, or by Transmission

Provider at Interconnection Customer's expense, to gather accumulated and instantaneous data to be telemetered to the location(s) designated by Transmission Provider through use of a dedicated point-to-point data circuit(s) as indicated in Article 8.1. The communication protocol for the data circuit(s) shall be specified by Transmission Provider. Instantaneous bi-directional analog real power and reactive power flow information must be telemetered directly to the location(s) specified by Transmission Provider.

Each Party will promptly advise the other Party if it detects or otherwise learns of any metering, telemetry or communications equipment errors or malfunctions that require the attention and/or correction by the other Party. The Party owning such equipment shall correct such error or malfunction as soon as reasonably feasible.

8.3 No Annexation. Any and all equipment placed on the premises of a Party shall be and remain the property of the Party providing such equipment regardless of the mode and manner of annexation or attachment to real property, unless otherwise mutually agreed by the Parties.

8.4 Provision of Data from a Variable Energy Resource. The Interconnection Customer whose Generating Facility is a Variable Energy Resource shall provide meteorological and forced outage data to the Transmission Provider to the extent necessary for the Transmission Provider's development and deployment of power production forecasts for that class of Variable Energy Resources. The Interconnection Customer with a Variable Energy Resource having wind as the energy source, at a minimum, will be required to provide the Transmission Provider with site-specific meteorological data including: temperature, wind speed, wind direction, and atmospheric pressure. The Interconnection Customer with a Variable Energy Resource having solar as the energy source, at a minimum, will be required to provide the Transmission Provider with site-specific meteorological data including: temperature, atmospheric pressure, and irradiance. The Transmission Provider and Interconnection Customer whose Generating Facility is a Variable Energy Resource shall mutually agree to any additional meteorological data that are required for the development and deployment of a power production forecast. The Interconnection Customer whose Generating Facility is a Variable Energy Resource also

shall submit data to the Transmission Provider regarding all forced outages to the extent necessary for the Transmission Provider's development and deployment of power production forecasts for that class of Variable Energy Resources. The exact specifications of the meteorological and forced outage data to be provided by the Interconnection Customer to the Transmission Provider, including the frequency and timing of data submittals, shall be made taking into account the size and configuration of the Variable Energy Resource, its characteristics, location, and its importance in maintaining generation resource adequacy and transmission system reliability in its area. All requirements for meteorological and forced outage data must be commensurate with the power production forecasting employed by the Transmission Provider. Such requirements for meteorological and forced outage data are set forth in Appendix C, Interconnection Details, of this LGIA, as they may change from time to time.

Article 9. Operations

- 9.1 General.** Each Party shall comply with the Applicable Reliability Council requirements. Each Party shall provide to the other Party all information that may reasonably be required by the other Party to comply with Applicable Laws and Regulations and Applicable Reliability Standards.
- 9.2 Control Area Notification.** At least three months before Initial Synchronization Date, Interconnection Customer shall notify Transmission Provider in writing of the Control Area in which the Large Generating Facility will be located. If Interconnection Customer elects to locate the Large Generating Facility in a Control Area other than the Control Area in which the Large Generating Facility is physically located, and if permitted to do so by the relevant transmission tariffs, all necessary arrangements, including but not limited to those set forth in Article 7 and Article 8 of this LGIA, and remote Control Area generator interchange agreements, if applicable, and the appropriate measures under such agreements, shall be executed and implemented prior to the placement of the Large Generating Facility in the other Control Area.
- 9.3 Transmission Provider Obligations.** Transmission Provider shall cause the Transmission System and Transmission

Provider's Interconnection Facilities to be operated, maintained and controlled in a safe and reliable manner and in accordance with this LGIA. Transmission Provider may provide operating instructions to Interconnection Customer consistent with this LGIA and Transmission Provider's operating protocols and procedures as they may change from time to time. Transmission Provider will consider changes to its operating protocols and procedures proposed by Interconnection Customer.

9.4 Interconnection Customer Obligations. Interconnection Customer shall at its own expense operate, maintain and control the Large Generating Facility and Interconnection Customer's Interconnection Facilities in a safe and reliable manner and in accordance with this LGIA. Interconnection Customer shall operate the Large Generating Facility and Interconnection Customer's Interconnection Facilities in accordance with all applicable requirements of the Control Area of which it is part, as such requirements are set forth in Appendix C, Interconnection Details, of this LGIA. Appendix C, Interconnection Details, will be modified to reflect changes to the requirements as they may change from time to time. Either Party may request that the other Party provide copies of the requirements set forth in Appendix C, Interconnection Details, of this LGIA.

9.5 Start-Up and Synchronization. Consistent with the Parties' mutually acceptable procedures, Interconnection Customer is responsible for the proper synchronization of the Large Generating Facility to Transmission Provider's Transmission System.

9.6 Reactive Power and Primary Frequency Response.

9.6.1 Power Factor Design Criteria. Interconnection Customer shall design the Large Generating Facility to maintain a composite power delivery at continuous rated power output at the Point of Interconnection at a power factor within the range of 0.95 leading to 0.95 lagging, unless Transmission Provider has established different requirements that apply to all generators in the Control Area on a comparable basis. The requirements of this paragraph shall not apply to wind generators.

9.6.1.1 Synchronous Generation.

Interconnection Customer shall design the Large Generating Facility to maintain a composite power deliver at continuous rated power output at the Point of Interconnection at a power factor within the range of 0.95 leading to 0.95 lagging, unless the Transmission Provider has established different requirements that apply to all synchronous generators in the Control Area on a comparable basis.

9.6.1.2 Non-Synchronous Generation.

Interconnection Customer shall design the Large Generating Facility to maintain composite power delivery at continuous rated power output at the high-side of the generator substation at a power factor within the range of 0.95 leading to 0.95 lagging, unless the Transmission Provider has established a different power factor range that applies to all non-synchronous generators in the Control Area on a comparable basis. This power factor range standard shall be dynamic and can be met using, for example, power electronics designed to supply this level of reactive capability (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors, or a combination of the two. This requirement shall only apply to newly interconnecting non-synchronous generators that have not yet executed a Facilities Study Agreement as of the effective date of the Final Rule establishing this requirement (Order No. 827).

9.6.2 Voltage Schedules. Once Interconnection Customer has synchronized the Large Generating Facility with the Transmission System, Transmission Provider shall require Interconnection Customer to operate the Large

Generating Facility to produce or absorb reactive power within the design limitations of the Large Generating Facility set forth in Article 9.6.1 (Power Factor Design Criteria). Transmission Provider's voltage schedules shall treat all sources of reactive power in the Control Area in an equitable and not unduly discriminatory manner. Transmission Provider shall exercise Reasonable Efforts to provide Interconnection Customer with such schedules at least one (1) day in advance, and may make changes to such schedules as necessary to maintain the reliability of the Transmission System. Interconnection Customer shall operate the Large Generating Facility to maintain the specified output voltage or power factor at the Point of Interconnection within the design limitations of the Large Generating Facility set forth in Article 9.6.1 (Power Factor Design Criteria). If Interconnection Customer is unable to maintain the specified voltage or power factor, it shall promptly notify the System Operator.

9.6.2.1 Voltage Regulators. Whenever the Large Generating Facility is operated in parallel with the Transmission System and voltage regulators are capable of operation, Interconnection Customer shall operate the Large Generating Facility with its voltage regulators in automatic operation. If the Large Generating Facility's voltage regulators are not capable of such automatic operation, Interconnection Customer shall immediately notify Transmission Provider's system operator, or its designated representative, and ensure that such Large Generating Facility's reactive power production or absorption (measured in MVARs) are within the design capability of the Large Generating Facility's generating unit(s) and steady state stability limits. Interconnection Customer shall not cause its Large Generating

Facility to disconnect automatically or instantaneously from the Transmission System or trip any generating unit comprising the Large Generating Facility for an under or over frequency condition unless the abnormal frequency condition persists for a time period beyond the limits set forth in ANSI/IEEE Standard C37.106, or such other standard as applied to other generators in the Control Area on a comparable basis.

- 9.6.3 Payment for Reactive Power.** Transmission Provider is required to pay Interconnection Customer for reactive power that Interconnection Customer provides or absorbs from the Large Generating Facility when Transmission Provider requests Interconnection Customer to operate its Large Generating Facility outside the range specified in Article 9.6.1, provided that if Transmission Provider pays its own or affiliated generators for reactive power service within the specified range, it must also pay Interconnection Customer. Payments shall be pursuant to Article 11.6 or such other agreement to which the Parties have otherwise agreed.
- 9.6.4 Primary Frequency Response.** Interconnection Customer shall ensure the primary frequency response capability of its Large Generating Facility by installing, maintaining, and operating a functioning governor or equivalent controls. The term "functioning governor or equivalent controls" as used herein shall mean the required hardware and/or software that provides frequency responsive real power control with the ability to sense changes in system frequency and autonomously adjust the Large Generating Facility's real power output in accordance with the droop and deadband parameters and in the direction needed to correct frequency deviations. Interconnection Customer is required to install a governor or equivalent controls with the capability of operating: (1) with a maximum 5 percent droop and ± 0.036 Hz deadband; or (2) in accordance with the relevant droop, deadband, and

timely and sustained response settings from an approved NERC Reliability Standard providing for equivalent or more stringent parameters. The droop characteristic shall be: (1) based on the nameplate capacity of the Large Generating Facility, and shall be linear in the range of frequencies between 59 to 61 Hz that are outside of the deadband parameter; or (2) based on an approved NERC Reliability Standard providing for an equivalent or more stringent parameter. The deadband parameter shall be: the range of frequencies above and below nominal (60 Hz) in which the governor or equivalent controls is not expected to adjust the Large Generating Facility's real power output in response to frequency deviations. The deadband shall be implemented: (1) without a step to the droop curve, that is, once the frequency deviation exceeds the deadband parameter, the expected change in the Large Generating Facility's real power output in response to frequency deviations shall start from zero and then increase (for under-frequency deviations) or decrease (for over-frequency deviations) linearly in proportion to the magnitude of the frequency deviation; or (2) in accordance with an approved NERC Reliability Standard providing for an equivalent or more stringent parameter. Interconnection Customer shall notify Transmission Provider that the primary frequency response capability of the Large Generating Facility has been tested and confirmed during commissioning. Once Interconnection Customer has synchronized the Large Generating Facility with the Transmission System, Interconnection Customer shall operate the Large Generating Facility consistent with the provisions specified in Sections 9.6.4.1 and 9.6.4.2 of this Agreement. The primary frequency response requirements contained herein shall apply to both synchronous and non-synchronous Large Generating Facilities.

9.6.4.1 Governor or Equivalent Controls.

Whenever the Large Generating Facility is operated in parallel with the Transmission System, Interconnection Customer shall operate the Large

Generating Facility with its governor or equivalent controls in service and responsive to frequency.

Interconnection Customer shall: (1) in coordination with Transmission Provider and/or the relevant balancing authority, set the deadband parameter to: (1) a maximum of ± 0.036 Hz and set the droop parameter to a maximum of 5 percent; or (2) implement the relevant droop and deadband settings from an approved NERC Reliability Standard that provides for equivalent or more stringent parameters. Interconnection Customer shall be required to provide the status and settings of the governor or equivalent controls to Transmission Provider and/or the relevant balancing authority upon request. If Interconnection Customer needs to operate the Large Generating Facility with its governor or equivalent controls not in service, Interconnection Customer shall immediately notify Transmission Provider and the relevant balancing authority, and provide both with the following information: (1) the operating status of the governor or equivalent controls (i.e., whether it is currently out of service or when it will be taken out of service); (2) the reasons for removing the governor or equivalent controls from service; and (3) a reasonable estimate of when the governor or equivalent controls will be returned to service.

Interconnection Customer shall make Reasonable Efforts to return its governor or equivalent controls into service as soon as practicable.

Interconnection Customer shall make Reasonable Efforts to keep outages of the Large Generating Facility's governor or equivalent controls to a minimum whenever the Large Generating Facility is operated in parallel with

the Transmission System.

9.6.4.2 Timely and Sustained Response.

Interconnection Customer shall ensure that the Large Generating Facility's real power response to sustained frequency deviations outside of the deadband setting is automatically provided and shall begin immediately after frequency deviates outside of the deadband, and to the extent the Large Generating Facility has operating capability in the direction needed to correct the frequency deviation. Interconnection Customer shall not block or otherwise inhibit the ability of the governor or equivalent controls to respond and shall ensure that the response is not inhibited, except under certain operational constraints including, but not limited to, ambient temperature limitations, physical energy limitations, outages of mechanical equipment, or regulatory requirements. The Large Generating Facility shall sustain the real power response at least until system frequency returns to a value within the deadband setting of the governor or equivalent controls. A Commission-approved Reliability Standard with equivalent or more stringent requirements shall supersede the above requirements.

9.6.4.3 Exemptions. Large Generating Facilities that are regulated by the United States Nuclear Regulatory Commission shall be exempt from Sections 9.6.4, 9.6.4.1, and 9.6.4.2 of this Agreement. Large Generating Facilities that are behind the meter generation that is sized-to-load (i.e., the thermal load and the generation are near-balanced in real-time operation and the generation is primarily controlled to maintain the

unique thermal, chemical, or mechanical output necessary for the operating requirements of its host facility) shall be required to install primary frequency response capability in accordance with the droop and deadband capability requirements specified in Section 9.6.4, but shall be otherwise exempt from the operating requirements in Sections 9.6.4, 9.6.4.1, 9.6.4.2, and 9.6.4.4 of this Agreement.

9.6.4.4 Electric Storage Resources.

Interconnection Customer interconnecting an electric storage resource shall establish an operating range in Appendix C of its LGIA that specifies a minimum state of charge and a maximum state of charge between which the electric storage resource will be required to provide primary frequency response consistent with the conditions set forth in Sections 9.6.4, 9.6.4.1, 9.6.4.2, and 9.6.4.3 of this Agreement. Appendix C shall specify whether the operating range is static or dynamic, and shall consider (1) the expected magnitude of frequency deviations in the interconnection; (2) the expected duration that system frequency will remain outside of the deadband parameter in the interconnection; (3) the expected incidence of frequency deviations outside of the deadband parameter in the interconnection; (4) the physical capabilities of the electric storage resource; (5) operational limitations of the electric storage resource due to manufacturer specifications; and (6) any other relevant factors agreed to by Transmission Provider and Interconnection Customer, and in consultation with the relevant transmission owner or balancing

authority as appropriate. If the operating range is dynamic, then Appendix C must establish how frequently the operating range will be reevaluated and the factors that may be considered during its reevaluation.

Interconnection Customer's electric storage resource is required to provide timely and sustained primary frequency response consistent with Section 9.6.4.2 of this Agreement when it is online and dispatched to inject electricity to the Transmission System and/or receive electricity from the Transmission System. This excludes circumstances when the electric storage resource is not dispatched to inject electricity to the Transmission System and/or dispatched to receive electricity from the Transmission System. If Interconnection Customer's electric storage resource is charging at the time of a frequency deviation outside of its deadband parameter, it is to increase (for over-frequency deviations) or decrease (for under-frequency deviations) the rate at which it is charging in accordance with its droop parameter. Interconnection Customer's electric storage resource is not required to change from charging to discharging, or vice versa, unless the response necessitated by the droop and deadband settings requires it to do so and it is technically capable of making such a transition.

9.7 Outages and Interruptions.

9.7.1 Outages.

9.7.1.1 Outage Authority and Coordination.

Each Party may in accordance with Good Utility Practice in coordination with the other Party remove from service

any of its respective Interconnection Facilities or Network Upgrades that may impact the other Party's facilities as necessary to perform maintenance or testing or to install or replace equipment. Absent an Emergency Condition, the Party scheduling a removal of such facility(ies) from service will use Reasonable Efforts to schedule such removal on a date and time mutually acceptable to the Parties. In all circumstances, any Party planning to remove such facility(ies) from service shall use Reasonable Efforts to minimize the effect on the other Party of such removal.

9.7.1.2 Outage Schedules. Transmission Provider shall post scheduled outages of its transmission facilities on the OASIS. Interconnection Customer shall submit its planned maintenance schedules for the Large Generating Facility to Transmission Provider for a minimum of a rolling twenty-four month period. Interconnection Customer shall update its planned maintenance schedules as necessary. Transmission Provider may request Interconnection Customer to reschedule its maintenance as necessary to maintain the reliability of the Transmission System; provided, however, adequacy of generation supply shall not be a criterion in determining Transmission System reliability. Transmission Provider shall compensate Interconnection Customer for any additional direct costs that Interconnection Customer incurs as a result of having to reschedule maintenance, including any additional overtime, breaking of maintenance contracts or other costs above and beyond the cost Interconnection Customer would have

incurred absent Transmission Provider's request to reschedule maintenance. Interconnection Customer will not be eligible to receive compensation, if during the twelve (12) months prior to the date of the scheduled maintenance, Interconnection Customer had modified its schedule of maintenance activities.

9.7.1.3 Outage Restoration. If an outage on a Party's Interconnection Facilities or Network Upgrades adversely affects the other Party's operations or facilities, the Party that owns or controls the facility that is out of service shall use Reasonable Efforts to promptly restore such facility(ies) to a normal operating condition consistent with the nature of the outage. The Party that owns or controls the facility that is out of service shall provide the other Party, to the extent such information is known, information on the nature of the Emergency Condition, an estimated time of restoration, and any corrective actions required. Initial verbal notice shall be followed up as soon as practicable with written notice explaining the nature of the outage.

9.7.2 Interruption of Service. If required by Good Utility Practice to do so, Transmission Provider may require Interconnection Customer to interrupt or reduce deliveries of electricity if such delivery of electricity could adversely affect Transmission Provider's ability to perform such activities as are necessary to safely and reliably operate and maintain the Transmission System. The following provisions shall apply to any interruption or reduction permitted under this Article 9.7.2:

9.7.2.1 The interruption or reduction shall

continue only for so long as reasonably necessary under Good Utility Practice;

- 9.7.2.2** Any such interruption or reduction shall be made on an equitable, non-discriminatory basis with respect to all generating facilities directly connected to the Transmission System;
- 9.7.2.3** When the interruption or reduction must be made under circumstances which do not allow for advance notice, Transmission Provider shall notify Interconnection Customer by telephone as soon as practicable of the reasons for the curtailment, interruption, or reduction, and, if known, its expected duration. Telephone notification shall be followed by written notification as soon as practicable;
- 9.7.2.4** Except during the existence of an Emergency Condition, when the interruption or reduction can be scheduled without advance notice, Transmission Provider shall notify Interconnection Customer in advance regarding the timing of such scheduling and further notify Interconnection Customer of the expected duration. Transmission Provider shall coordinate with Interconnection Customer using Good Utility Practice to schedule the interruption or reduction during periods of least impact to Interconnection Customer and Transmission Provider;
- 9.7.2.5** The Parties shall cooperate and coordinate with each other to the extent necessary in order to restore the Large Generating Facility, Interconnection Facilities, and the Transmission System to their normal operating state, consistent with

system conditions and Good Utility Practice.

9.7.3 Under-Frequency and Over Frequency Conditions.

The Transmission System is designed to automatically activate a load-shed program as required by the Applicable Reliability Council in the event of an under-frequency system disturbance. Interconnection Customer shall implement under-frequency and over-frequency relay set points for the Large Generating Facility as required by the Applicable Reliability Council to ensure "ride through" capability of the Transmission System. Large Generating Facility response to frequency deviations of pre-determined magnitudes, both under-frequency and over-frequency deviations, shall be studied and coordinated with Transmission Provider in accordance with Good Utility Practice. The term "ride through" as used herein shall mean the ability of a Generating Facility to stay connected to and synchronized with the Transmission System during system disturbances within a range of under-frequency and over-frequency conditions, in accordance with Good Utility Practice.

9.7.4 System Protection and Other Control Requirements.

9.7.4.1 System Protection Facilities.

Interconnection Customer shall, at its expense, install, operate and maintain System Protection Facilities as a part of the Large Generating Facility or Interconnection Customer's Interconnection Facilities.

Transmission Provider shall install at Interconnection Customer's expense any System Protection Facilities that may be required on Transmission Provider's Interconnection Facilities or the Transmission System as a result of the interconnection of the Large Generating Facility and Interconnection Customer's Interconnection Facilities.

- 9.7.4.2 Each Party's protection facilities shall be designed and coordinated with other systems in accordance with Good Utility Practice.
- 9.7.4.3 Each Party shall be responsible for protection of its facilities consistent with Good Utility Practice.
- 9.7.4.4 Each Party's protective relay design shall incorporate the necessary test switches to perform the tests required in Article 6. The required test switches will be placed such that they allow operation of lockout relays while preventing breaker failure schemes from operating and causing unnecessary breaker operations and/or the tripping of Interconnection Customer's units.
- 9.7.4.5 Each Party will test, operate and maintain System Protection Facilities in accordance with Good Utility Practice.
- 9.7.4.6 Prior to the In-Service Date, and again prior to the Commercial Operation Date, each Party or its agent shall perform a complete calibration test and functional trip test of the System Protection Facilities. At intervals suggested by Good Utility Practice and following any apparent malfunction of the System Protection Facilities, each Party shall perform both calibration and functional trip tests of its System Protection Facilities. These tests do not require the tripping of any in-service generation unit. These tests do, however, require that all protective relays and lockout contacts be activated.

9.7.5 Requirements for Protection. In compliance

with Good Utility Practice, Interconnection Customer shall provide, install, own, and maintain relays, circuit breakers and all other devices necessary to remove any fault contribution of the Large Generating Facility to any short circuit occurring on the Transmission System not otherwise isolated by Transmission Provider's equipment, such that the removal of the fault contribution shall be coordinated with the protective requirements of the Transmission System. Such protective equipment shall include, without limitation, a disconnecting device or switch with load-interrupting capability located between the Large Generating Facility and the Transmission System at a site selected upon mutual agreement (not to be unreasonably withheld, conditioned or delayed) of the Parties. Interconnection Customer shall be responsible for protection of the Large Generating Facility and Interconnection Customer's other equipment from such conditions as negative sequence currents, over- or under-frequency, sudden load rejection, over- or under-voltage, and generator loss-of-field. Interconnection Customer shall be solely responsible to disconnect the Large Generating Facility and Interconnection Customer's other equipment if conditions on the Transmission System could adversely affect the Large Generating Facility.

9.7.6 Power Quality. Neither Party's facilities shall cause excessive voltage flicker nor introduce excessive distortion to the sinusoidal voltage or current waves as defined by ANSI Standard C84.1-1989, in accordance with IEEE Standard 519, or any applicable superseding electric industry standard. In the event of a conflict between ANSI Standard C84.1-1989, or any applicable superseding electric industry standard, ANSI Standard C84.1-1989, or the applicable superseding electric industry standard, shall control.

9.8 Switching and Tagging Rules. Each Party shall provide the other Party a copy of its switching and tagging rules that are applicable to the other Party's activities. Such

switching and tagging rules shall be developed on a non-discriminatory basis. The Parties shall comply with applicable switching and tagging rules, as amended from time to time, in obtaining clearances for work or for switching operations on equipment.

9.9 Use of Interconnection Facilities by Third Parties.

9.9.1 Purpose of Interconnection Facilities. Except as may be required by Applicable Laws and Regulations, or as otherwise agreed to among the Parties, the Interconnection Facilities shall be constructed for the sole purpose of interconnecting the Large Generating Facility to the Transmission System and shall be used for no other purpose.

9.9.2 Third Party Users. If required by Applicable Laws and Regulations or if the Parties mutually agree, such agreement not to be unreasonably withheld, to allow one or more third parties to use Transmission Provider's Interconnection Facilities, or any part thereof, Interconnection Customer will be entitled to compensation for the capital expenses it incurred in connection with the Interconnection Facilities based upon the pro rata use of the Interconnection Facilities by Transmission Provider, all third party users, and Interconnection Customer, in accordance with Applicable Laws and Regulations or upon some other mutually-agreed upon methodology. In addition, cost responsibility for ongoing costs, including operation and maintenance costs associated with the Interconnection Facilities, will be allocated between Interconnection Customer and any third party users based upon the pro rata use of the Interconnection Facilities by Transmission Provider, all third party users, and Interconnection Customer, in accordance with Applicable Laws and Regulations or upon some other mutually agreed upon methodology. If the issue of such compensation or allocation cannot be resolved through such negotiations, it shall be submitted to FERC for resolution.

9.10 Disturbance Analysis Data Exchange. The Parties will cooperate with one another in the analysis of disturbances to either the Large Generating Facility or Transmission Provider's Transmission System by gathering and providing access to any information relating to any disturbance, including information from oscillography, protective relay targets, breaker operations and sequence of events records, and any disturbance information required by Good Utility Practice.

Article 10. Maintenance

- 10.1 Transmission Provider Obligations.** Transmission Provider shall maintain the Transmission System and Transmission Provider's Interconnection Facilities in a safe and reliable manner and in accordance with this LGIA.
- 10.2 Interconnection Customer Obligations.** Interconnection Customer shall maintain the Large Generating Facility and Interconnection Customer's Interconnection Facilities in a safe and reliable manner and in accordance with this LGIA.
- 10.3 Coordination.** The Parties shall confer regularly to coordinate the planning, scheduling and performance of preventive and corrective maintenance on the Large Generating Facility and the Interconnection Facilities.
- 10.4 Secondary Systems.** Each Party shall cooperate with the other in the inspection, maintenance, and testing of control or power circuits that operate below 600 volts, AC or DC, including, but not limited to, any hardware, control or protective devices, cables, conductors, electric raceways, secondary equipment panels, transducers, batteries, chargers, and voltage and current transformers that directly affect the operation of a Party's facilities and equipment which may reasonably be expected to impact the other Party. Each Party shall provide advance notice to the other Party before undertaking any work on such circuits, especially on electrical circuits involving circuit breaker trip and close contacts, current transformers, or potential transformers.
- 10.5 Operating and Maintenance Expenses.** Subject to the provisions herein addressing the use of facilities by others, and except for operations and maintenance expenses associated with modifications made for providing

interconnection or transmission service to a third party and such third party pays for such expenses, Interconnection Customer shall be responsible for all reasonable expenses including overheads, associated with: (1) owning, operating, maintaining, repairing, and replacing Interconnection Customer's Interconnection Facilities; and (2) operation, maintenance, repair and replacement of Transmission Provider's Interconnection Facilities.

Article 11. Performance Obligation

11.1 Interconnection Customer Interconnection Facilities.

Interconnection Customer shall design, procure, construct, install, own and/or control Interconnection Customer Interconnection Facilities described in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades, at its sole expense.

11.2 Transmission Provider's Interconnection Facilities.

Transmission Provider or Transmission Owner shall design, procure, construct, install, own and/or control the Transmission Provider's Interconnection Facilities described in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades, at the sole expense of the Interconnection Customer.

11.3 Network Upgrades and Distribution Upgrades.

Transmission Provider or Transmission Owner shall design, procure, construct, install, and own the Network Upgrades and Distribution Upgrades described in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades. The Interconnection Customer shall be responsible for all costs related to Distribution Upgrades. Unless Transmission Provider or Transmission Owner elects to fund the capital for the Network Upgrades, they shall be solely funded by Interconnection Customer. In the event that Transmission Provider must change the voltage levels of a discrete portion of the Transmission System to which the Interconnection Customer is connected, Transmission Provider shall give reasonable notice of such change and the Interconnection Customer shall be solely responsible for all costs related to upgrades or modifications to Interconnection Customer's Interconnection Facilities resulting from Transmission Provider's increase in the voltage levels of the Transmission System, in order to remain interconnected

with the Transmission System at the new operating voltage. To the extent that the modifications necessary to upgrade Interconnection Facilities qualify as Network Upgrades, Transmission Provider shall be solely responsible for the expense of such modifications or upgrades.

11.4 Transmission Credits.

11.4.1 Repayment of Amounts Advanced for Network Upgrades. Interconnection Customer shall be entitled to a cash repayment, equal to the total amount paid to Transmission Provider and Affected System Operator, if any, for the Network Upgrades, including any tax gross-up or other tax-related payments associated with Network Upgrades, and not refunded to Interconnection Customer pursuant to Article 5.17.8 or otherwise, to be paid to Interconnection Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, as payments are made under Transmission Provider's Tariff and Affected System's Tariff for transmission services with respect to the Large Generating Facility. Any repayment shall include interest calculated in accordance with the methodology set forth in FERC's regulations at 18 C.F.R. § 35.19a(a)(2)(iii) from the date of any payment for Network Upgrades through the date on which the Interconnection Customer receives a repayment of such payment pursuant to this subparagraph. Interconnection Customer may assign such repayment rights to any person.

Notwithstanding the foregoing, Interconnection Customer, Transmission Provider, and Affected System Operator may adopt any alternative payment schedule that is mutually agreeable so long as Transmission Provider and Affected System Operator take one of the following actions no later than five years from the Commercial Operation Date: (1) return to Interconnection Customer any amounts advanced for Network Upgrades not previously repaid, or (2) declare in writing that Transmission Provider or Affected System Operator will continue to provide payments to Interconnection

Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, or develop an alternative schedule that is mutually agreeable and provides for the return of all amounts advanced for Network Upgrades not previously repaid; however, full reimbursement shall not extend beyond twenty (20) years from the Commercial Operation Date.

If the Large Generating Facility fails to achieve commercial operation, but it or another Generating Facility is later constructed and makes use of the Network Upgrades, Transmission Provider and Affected System Operator shall at that time reimburse Interconnection Customer for the amounts advanced for the Network Upgrades. Before any such reimbursement can occur, the Interconnection Customer, or the entity that ultimately constructs the Generating Facility, if different, is responsible for identifying the entity to which reimbursement must be made.

11.4.2 Special Provisions for Affected Systems.

Unless Transmission Provider provides, under the LGIA, for the repayment of amounts advanced to Affected System Operator for Network Upgrades, Interconnection Customer and Affected System Operator shall enter into an agreement that provides for such repayment. The agreement shall specify the terms governing payments to be made by Interconnection Customer to the Affected System Operator as well as the repayment by the Affected System Operator.

11.4.3 Notwithstanding any other provision of this LGIA, nothing herein shall be construed as relinquishing or foreclosing any rights, including but not limited to firm transmission rights, capacity rights, transmission congestion rights, or transmission credits, that Interconnection Customer, shall be entitled to, now or in the future under any other agreement or tariff as a result of, or otherwise associated with, the transmission capacity, if any, created by the Network Upgrades, including the right to obtain cash

reimbursements or transmission credits for transmission service that is not associated with the Large Generating Facility.

11.5 Provision of Security. At least thirty (30) Calendar Days prior to the commencement of the first of the following to occur: design, procurement, installation, or construction of a discrete portion of a Transmission Provider's Interconnection Facilities, Network Upgrades, or Distribution Upgrades, Interconnection Customer shall provide Transmission Provider, at Interconnection Customer's option, a guarantee, a surety bond, letter of credit or other form of security that is reasonably acceptable to Transmission Provider and is consistent with the Uniform Commercial Code of the jurisdiction identified in Article 14.2.1. Such security for payment shall be in an amount sufficient to cover the costs for constructing, designing, procuring, and installing the applicable portion of Transmission Provider's Interconnection Facilities, Network Upgrades, or Distribution Upgrades and shall be reduced on a dollar-for-dollar basis for payments made to Transmission Provider for these purposes.

In addition:

- 11.5.1** The guarantee must be made by an entity that meets the creditworthiness requirements of Transmission Provider, and contain terms and conditions that guarantee payment of any amount that may be due from Interconnection Customer, up to an agreed-to maximum amount.
- 11.5.2** The letter of credit must be issued by a financial institution reasonably acceptable to Transmission Provider and must indicate that it would only expire upon final payment made to Transmission Provider to cover all relevant costs for designing, procuring, installing, and constructing the applicable portion of Interconnection Facilities, Network Upgrades, or Distribution Upgrades for which the letter of credit was provided.
- 11.5.3** The surety bond must be issued by an insurer reasonably acceptable to Transmission Provider and must indicate that it would only expire upon final payment made to Transmission

Provider to cover all relevant costs for designing, procuring, installing, and constructing the applicable portion of Interconnection Facilities, Network Upgrades, or Distribution Upgrades for which the surety bond was provided.

11.6 Interconnection Customer Compensation. If Transmission Provider requests or directs Interconnection Customer to provide a service pursuant to Articles 9.6.3 (Payment for Reactive Power), or 13.5.1 of this LGIA, Transmission Provider shall compensate Interconnection Customer in accordance with Interconnection Customer's applicable rate schedule then in effect unless the provision of such service(s) is subject to an RTO or ISO FERC-approved rate schedule. Interconnection Customer shall serve Transmission Provider or RTO or ISO with any filing of a proposed rate schedule at the time of such filing with FERC. To the extent that no rate schedule is in effect at the time the Interconnection Customer is required to provide or absorb any Reactive Power under this LGIA, Transmission Provider agrees to compensate Interconnection Customer in such amount as would have been due Interconnection Customer had the rate schedule been in effect at the time service commenced; provided, however, that such rate schedule must be filed at FERC or other appropriate Governmental Authority within sixty (60) Calendar Days of the commencement of service.

11.6.1 Interconnection Customer Compensation for Actions During Emergency Condition. Transmission Provider or RTO or ISO shall compensate Interconnection Customer for its provision of real and reactive power and other Emergency Condition services that Interconnection Customer provides to support the Transmission System during an Emergency Condition in accordance with Article 11.6.

Article 12. Invoice

12.1 General. Each Party shall submit to the other Party, on a monthly basis, invoices of amounts due for the preceding month. Each invoice shall state the month to which the invoice applies and fully describe the services and equipment provided. The Parties may discharge mutual debts and payment obligations due and owing to each other

on the same date through netting, in which case all amounts a Party owes to the other Party under this LGIA, including interest payments or credits, shall be netted so that only the net amount remaining due shall be paid by the owing Party.

12.2 Final Invoice. Within six months after completion of the construction of Transmission Provider's Interconnection Facilities and the Network Upgrades, Transmission Provider shall provide an invoice of the final cost of the construction of Transmission Provider's Interconnection Facilities and the Network Upgrades and shall set forth such costs in sufficient detail to enable Interconnection Customer to compare the actual costs with the estimates and to ascertain deviations, if any, from the cost estimates. Transmission Provider shall refund to Interconnection Customer any amount by which the actual payment by Interconnection Customer for estimated costs exceeds the actual costs of construction within thirty (30) Calendar Days of the issuance of such final construction invoice.

12.3 Payment. Invoices shall be rendered to the paying Party at the address specified in Appendix F. The Party receiving the invoice shall pay the invoice within thirty (30) Calendar Days of receipt. All payments shall be made in immediately available funds payable to the other Party, or by wire transfer to a bank named and account designated by the invoicing Party. Payment of invoices by either Party will not constitute a waiver of any rights or claims either Party may have under this LGIA.

12.4 Disputes. In the event of a billing dispute between Transmission Provider and Interconnection Customer, Transmission Provider shall continue to provide Interconnection Service under this LGIA as long as Interconnection Customer: (i) continues to make all payments not in dispute; and (ii) pays to Transmission Provider or into an independent escrow account the portion of the invoice in dispute, pending resolution of such dispute. If Interconnection Customer fails to meet these two requirements for continuation of service, then Transmission Provider may provide notice to Interconnection Customer of a Default pursuant to Article 17. Within thirty (30) Calendar Days after the resolution of the dispute, the Party that owes money to the other Party shall pay the amount due with interest calculated in

accord with the methodology set forth in FERC's regulations at 18 CFR § 35.19a(a)(2)(iii).

Article 13. Emergencies

- 13.1 Definition.** "Emergency Condition" shall mean a condition or situation: (i) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (ii) that, in the case of Transmission Provider, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to the Transmission System, Transmission Provider's Interconnection Facilities or the Transmission Systems of others to which the Transmission System is directly connected; or (iii) that, in the case of Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Large Generating Facility or Interconnection Customer's Interconnection Facilities' System restoration and black start shall be considered Emergency Conditions; provided, that Interconnection Customer is not obligated by this LGIA to possess black start capability.
- 13.2 Obligations.** Each Party shall comply with the Emergency Condition procedures of the applicable ISO/RTO, NERC, the Applicable Reliability Council, Applicable Laws and Regulations, and any emergency procedures agreed to by the Joint Operating Committee.
- 13.3 Notice.** Transmission Provider shall notify Interconnection Customer promptly when it becomes aware of an Emergency Condition that affects Transmission Provider's Interconnection Facilities or the Transmission System that may reasonably be expected to affect Interconnection Customer's operation of the Large Generating Facility or Interconnection Customer's Interconnection Facilities. Interconnection Customer shall notify Transmission Provider promptly when it becomes aware of an Emergency Condition that affects the Large Generating Facility or Interconnection Customer's Interconnection Facilities that may reasonably be expected to affect the Transmission System or Transmission Provider's Interconnection Facilities. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of

Interconnection Customer's or Transmission Provider's facilities and operations, its anticipated duration and the corrective action taken and/or to be taken. The initial notice shall be followed as soon as practicable with written notice.

13.4 Immediate Action. Unless, in Interconnection Customer's reasonable judgment, immediate action is required, Interconnection Customer shall obtain the consent of Transmission Provider, such consent to not be unreasonably withheld, prior to performing any manual switching operations at the Large Generating Facility or Interconnection Customer's Interconnection Facilities in response to an Emergency Condition either declared by Transmission Provider or otherwise regarding the Transmission System.

13.5 Transmission Provider Authority.

13.5.1 General. Transmission Provider may take whatever actions or inactions with regard to the Transmission System or Transmission Provider's Interconnection Facilities it deems necessary during an Emergency Condition in order to (i) preserve public health and safety, (ii) preserve the reliability of the Transmission System or Transmission Provider's Interconnection Facilities, (iii) limit or prevent damage, and (iv) expedite restoration of service.

Transmission Provider shall use Reasonable Efforts to minimize the effect of such actions or inactions on the Large Generating Facility or Interconnection Customer's Interconnection Facilities. Transmission Provider may, on the basis of technical considerations, require the Large Generating Facility to mitigate an Emergency Condition by taking actions necessary and limited in scope to remedy the Emergency Condition, including, but not limited to, directing Interconnection Customer to shut-down, start-up, increase or decrease the real or reactive power output of the Large Generating Facility; implementing a reduction or disconnection pursuant to Article 13.5.2; directing Interconnection Customer to assist with blackstart (if available) or restoration efforts;

or altering the outage schedules of the Large Generating Facility and Interconnection Customer's Interconnection Facilities. Interconnection Customer shall comply with all of Transmission Provider's operating instructions concerning Large Generating Facility real power and reactive power output within the manufacturer's design limitations of the Large Generating Facility's equipment that is in service and physically available for operation at the time, in compliance with Applicable Laws and Regulations.

13.5.2 Reduction and Disconnection. Transmission Provider may reduce Interconnection Service or disconnect the Large Generating Facility or Interconnection Customer's Interconnection Facilities, when such, reduction or disconnection is necessary under Good Utility Practice due to Emergency Conditions. These rights are separate and distinct from any right of curtailment of Transmission Provider pursuant to Transmission Provider's Tariff. When Transmission Provider can schedule the reduction or disconnection in advance, Transmission Provider shall notify Interconnection Customer of the reasons, timing and expected duration of the reduction or disconnection. Transmission Provider shall coordinate with Interconnection Customer using Good Utility Practice to schedule the reduction or disconnection during periods of least impact to Interconnection Customer and Transmission Provider. Any reduction or disconnection shall continue only for so long as reasonably necessary under Good Utility Practice. The Parties shall cooperate with each other to restore the Large Generating Facility, the Interconnection Facilities, and the Transmission System to their normal operating state as soon as practicable consistent with Good Utility Practice.

13.6 Interconnection Customer Authority. Consistent with Good Utility Practice and the LGIA and the LGIP, Interconnection Customer may take actions or inactions with regard to the Large Generating Facility or Interconnection Customer's Interconnection Facilities during an Emergency Condition in order to (i) preserve

public health and safety, (ii) preserve the reliability of the Large Generating Facility or Interconnection Customer's Interconnection Facilities, (iii) limit or prevent damage, and (iv) expedite restoration of service. Interconnection Customer shall use Reasonable Efforts to minimize the effect of such actions or inactions on the Transmission System and Transmission Provider's Interconnection Facilities. Transmission Provider shall use Reasonable Efforts to assist Interconnection Customer in such actions.

- 13.7 Limited Liability.** Except as otherwise provided in Article 11.6.1 of this LGIA, neither Party shall be liable to the other for any action it takes in responding to an Emergency Condition so long as such action is made in good faith and is consistent with Good Utility Practice.

Article 14. Regulatory Requirements and Governing Law

- 14.1 Regulatory Requirements.** Each Party's obligations under this LGIA shall be subject to its receipt of any required approval or certificate from one or more Governmental Authorities in the form and substance satisfactory to the applying Party, or the Party making any required filings with, or providing notice to, such Governmental Authorities, and the expiration of any time period associated therewith. Each Party shall in good faith seek and use its Reasonable Efforts to obtain such other approvals. Nothing in this LGIA shall require Interconnection Customer to take any action that could result in its inability to obtain, or its loss of, status or exemption under the Federal Power Act, the Public Utility Holding Company Act of 1935, as amended, or the Public Utility Regulatory Policies Act of 1978.

14.2 Governing Law.

- 14.2.1** The validity, interpretation and performance of this LGIA and each of its provisions shall be governed by the laws of the state where the Point of Interconnection is located, without regard to its conflicts of law principles.
- 14.2.2** This LGIA is subject to all Applicable Laws and Regulations.
- 14.2.3** Each Party expressly reserves the right to seek

changes in, appeal, or otherwise contest any laws, orders, rules, or regulations of a Governmental Authority.

Article 15. Notices.

15.1 General. Unless otherwise provided in this LGIA, any notice, demand or request required or permitted to be given by either Party to the other and any instrument required or permitted to be tendered or delivered by either Party in writing to the other shall be effective when delivered and may be so given, tendered or delivered, by recognized national courier, or by depositing the same with the United States Postal Service with postage prepaid, for delivery by certified or registered mail, addressed to the Party, or personally delivered to the Party, at the address set out in Appendix F, Addresses for Delivery of Notices and Billings.

Either Party may change the notice information in this LGIA by giving five (5) Business Days written notice prior to the effective date of the change.

15.2 Billings and Payments. Billings and payments shall be sent to the addresses set out in Appendix F.

15.3 Alternative Forms of Notice. Any notice or request required or permitted to be given by a Party to the other and not required by this Agreement to be given in writing may be so given by telephone, facsimile or email to the telephone numbers and email addresses set out in Appendix F.

15.4 Operations and Maintenance Notice. Each Party shall notify the other Party in writing of the identity of the person(s) that it designates as the point(s) of contact with respect to the implementation of Articles 9 and 10.

Article 16. Force Majeure

16.1 Force Majeure.

16.1.1 Economic hardship is not considered a Force Majeure event.

16.1.2 Neither Party shall be considered to be in Default with respect to any obligation

hereunder, (including obligations under Article 4), other than the obligation to pay money when due, if prevented from fulfilling such obligation by Force Majeure. A Party unable to fulfill any obligation hereunder (other than an obligation to pay money when due) by reason of Force Majeure shall give notice and the full particulars of such Force Majeure to the other Party in writing or by telephone as soon as reasonably possible after the occurrence of the cause relied upon. Telephone notices given pursuant to this article shall be confirmed in writing as soon as reasonably possible and shall specifically state full particulars of the Force Majeure, the time and date when the Force Majeure occurred and when the Force Majeure is reasonably expected to cease. The Party affected shall exercise due diligence to remove such disability with reasonable dispatch, but shall not be required to accede or agree to any provision not satisfactory to it in order to settle and terminate a strike or other labor disturbance.

Article 17. Default

17.1 Default

17.1.1 General. No Default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of Force Majeure as defined in this LGIA or the result of an act of omission of the other Party. Upon a Breach, the non-breaching Party shall give written notice of such Breach to the breaching Party. Except as provided in Article 17.1.2, the breaching Party shall have thirty (30) Calendar Days from receipt of the Default notice within which to cure such Breach; provided however, if such Breach is not capable of cure within thirty (30) Calendar Days, the breaching Party shall commence such cure within thirty (30) Calendar Days after notice and continuously and diligently complete such cure within ninety (90) Calendar Days from receipt of the Default notice; and, if cured within such time, the Breach specified in such notice

shall cease to exist.

17.1.2 Right to Terminate. If a Breach is not cured as provided in this article, or if a Breach is not capable of being cured within the period provided for herein, the non-breaching Party shall have the right to declare a Default and terminate this LGIA by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not that Party terminates this LGIA, to recover from the breaching Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this article will survive termination of this LGIA.

Article 18. Indemnity, Consequential Damages and Insurance

18.1 Indemnity. The Parties shall at all times indemnify, defend, and hold the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or inactions of its obligations under this LGIA on behalf of the Indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the Indemnified Party.

18.1.1 Indemnified Person. If an Indemnified Person is entitled to indemnification under this Article 18 as a result of a claim by a third party, and the indemnifying Party fails, after notice and reasonable opportunity to proceed under Article 18.1, to assume the defense of such claim, such Indemnified Person may at the expense of the indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

18.1.2 Indemnifying Party. If an Indemnifying Party is obligated to indemnify and hold any Indemnified Person harmless under this Article 18, the amount owing to the Indemnified Person shall be the amount of such Indemnified

Person's actual Loss, net of any insurance or other recovery.

18.1.3 Indemnity Procedures. Promptly after receipt by an Indemnified Person of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in Article 18.1 may apply, the Indemnified Person shall notify the Indemnifying Party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying Party.

The Indemnifying Party shall have the right to assume the defense thereof with counsel designated by such Indemnifying Party and reasonably satisfactory to the Indemnified Person. If the defendants in any such action include one or more Indemnified Persons and the Indemnifying Party and if the Indemnified Person reasonably concludes that there may be legal defenses available to it and/or other Indemnified Persons which are different from or additional to those available to the Indemnifying Party, the Indemnified Person shall have the right to select separate counsel to assert such legal defenses and to otherwise participate in the defense of such action on its own behalf. In such instances, the Indemnifying Party shall only be required to pay the fees and expenses of one additional attorney to represent an Indemnified Person or Indemnified Persons having such differing or additional legal defenses.

The Indemnified Person shall be entitled, at its expense, to participate in any such action, suit or proceeding, the defense of which has been assumed by the Indemnifying Party. Notwithstanding the foregoing, the Indemnifying Party (i) shall not be entitled to assume and control the defense of any such action, suit or proceedings if and to the extent that, in the opinion of the Indemnified Person and its

counsel, such action, suit or proceeding involves the potential imposition of criminal liability on the Indemnified Person, or there exists a conflict or adversity of interest between the Indemnified Person and the Indemnifying Party, in such event the Indemnifying Party shall pay the reasonable expenses of the Indemnified Person, and (ii) shall not settle or consent to the entry of any judgment in any action, suit or proceeding without the consent of the Indemnified Person, which shall not be reasonably withheld, conditioned or delayed.

18.2 Consequential Damages. Other than the Liquidated Damages heretofore described, in no event shall either Party be liable under any provision of this LGIA for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to the other Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

18.3 Insurance. Each party shall, at its own expense, maintain in force throughout the period of this LGIA, and until released by the other Party, the following minimum insurance coverages, with insurers authorized to do business in the state where the Point of Interconnection is located:

18.3.1 Employers' Liability and Workers' Compensation Insurance providing statutory benefits in accordance with the laws and regulations of the state in which the Point of Interconnection is located.

18.3.2 Commercial General Liability Insurance including premises and operations, personal injury, broad form property damage, broad form blanket contractual liability coverage (including coverage for the contractual

indemnification) products and completed operations coverage, coverage for explosion, collapse and underground hazards, independent contractors coverage, coverage for pollution to the extent normally available and punitive damages to the extent normally available and a cross liability endorsement, with minimum limits of One Million Dollars (\$1,000,000) per occurrence/One Million Dollars (\$1,000,000) aggregate combined single limit for personal injury, bodily injury, including death and property damage.

- 18.3.3** Comprehensive Automobile Liability Insurance for coverage of owned and non-owned and hired vehicles, trailers or semi-trailers designed for travel on public roads, with a minimum, combined single limit of One Million Dollars (\$1,000,000) per occurrence for bodily injury, including death, and property damage.
- 18.3.4** Excess Public Liability Insurance over and above the Employers' Liability Commercial General Liability and Comprehensive Automobile Liability Insurance coverage, with a minimum combined single limit of Twenty Million Dollars (\$20,000,000) per occurrence/Twenty Million Dollars (\$20,000,000) aggregate.
- 18.3.5** The Commercial General Liability Insurance, Comprehensive Automobile Insurance and Excess Public Liability Insurance policies shall name the other Party, its parent, associated and Affiliate companies and their respective directors, officers, agents, servants and employees ("Other Party Group") as additional insured. All policies shall contain provisions whereby the insurers waive all rights of subrogation in accordance with the provisions of this LGIA against the Other Party Group and provide thirty (30) Calendar Days advance written notice to the Other Party Group prior to anniversary date of cancellation or any material change in coverage or condition.
- 18.3.6** The Commercial General Liability Insurance, Comprehensive Automobile Liability Insurance

and Excess Public Liability Insurance policies shall contain provisions that specify that the policies are primary and shall apply to such extent without consideration for other policies separately carried and shall state that each insured is provided coverage as though a separate policy had been issued to each, except the insurer's liability shall not be increased beyond the amount for which the insurer would have been liable had only one insured been covered. Each Party shall be responsible for its respective deductibles or retentions.

- 18.3.7** The Commercial General Liability Insurance, Comprehensive Automobile Liability Insurance and Excess Public Liability Insurance policies, if written on a Claims First Made Basis, shall be maintained in full force and effect for two (2) years after termination of this LGIA, which coverage may be in the form of tail coverage or extended reporting period coverage if agreed by the Parties.
- 18.3.8** The requirements contained herein as to the types and limits of all insurance to be maintained by the Parties are not intended to and shall not in any manner, limit or qualify the liabilities and obligations assumed by the Parties under this LGIA.
- 18.3.9** Within ten (10) days following execution of this LGIA, and as soon as practicable after the end of each fiscal year or at the renewal of the insurance policy and in any event within ninety (90) days thereafter, each Party shall provide certification of all insurance required in this LGIA, executed by each insurer or by an authorized representative of each insurer.
- 18.3.10** Notwithstanding the foregoing, each Party may self-insure to meet the minimum insurance requirements of Articles 18.3.2 through 18.3.8 to the extent it maintains a self-insurance program; provided that, such Party's senior secured debt is rated at investment grade or better by Standard & Poor's and that its self-insurance program meets the minimum insurance

requirements of Articles 18.3.2 through 18.3.8. For any period of time that a Party's senior secured debt is unrated by Standard & Poor's or is rated at less than investment grade by Standard & Poor's, such Party shall comply with the insurance requirements applicable to it under Articles 18.3.2 through 18.3.9. In the event that a Party is permitted to self-insure pursuant to this article, it shall notify the other Party that it meets the requirements to self-insure and that its self-insurance program meets the minimum insurance requirements in a manner consistent with that specified in Article 18.3.9.

18.3.11 The Parties agree to report to each other in writing as soon as practical all accidents or occurrences resulting in injuries to any person, including death, and any property damage arising out of this LGIA.

Article 19. Assignment

19.1 Assignment. This LGIA may be assigned by either Party only with the written consent of the other; provided that either Party may assign this LGIA without the consent of the other Party to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this LGIA; and provided further that Interconnection Customer shall have the right to assign this LGIA, without the consent of Transmission Provider, for collateral security purposes to aid in providing financing for the Large Generating Facility, provided that Interconnection Customer will promptly notify Transmission Provider of any such assignment. Any financing arrangement entered into by Interconnection Customer pursuant to this article will provide that prior to or upon the exercise of the secured Party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify Transmission Provider of the date and particulars of any such exercise of assignment right(s), including providing the Transmission Provider with proof that it meets the requirements of Articles 11.5 and 18.3. Any attempted assignment that violates this article is void and ineffective. Any

assignment under this LGIA shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

Article 20. Severability

- 20.1 Severability.** If any provision in this LGIA is finally determined to be invalid, void or unenforceable by any court or other Governmental Authority having jurisdiction, such determination shall not invalidate, void or make unenforceable any other provision, agreement or covenant of this LGIA; provided that if Interconnection Customer (or any third party, but only if such third party is not acting at the direction of Transmission Provider) seeks and obtains such a final determination with respect to any provision of the Alternate Option (Article 5.1.2), or the Negotiated Option (Article 5.1.4), then none of these provisions shall thereafter have any force or effect and the Parties' rights and obligations shall be governed solely by the Standard Option (Article 5.1.1).

Article 21. Comparability

- 21.1 Comparability.** The Parties will comply with all applicable comparability and code of conduct laws, rules and regulations, as amended from time to time.

Article 22. Confidentiality

- 22.1 Confidentiality.** Confidential Information shall include, without limitation, all information relating to a Party's technology, research and development, business affairs, and pricing, and any information supplied by either of the Parties to the other prior to the execution of this LGIA.

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Party receiving the information that the information is confidential.

If requested by either Party, the other Party shall provide in writing, the basis for asserting that the information referred to in this Article 22 warrants

confidential treatment, and the requesting Party may disclose such writing to the appropriate Governmental Authority. Each Party shall be responsible for the costs associated with affording confidential treatment to its information.

22.1.1 Term. During the term of this LGIA, and for a period of three (3) years after the expiration or termination of this LGIA, except as otherwise provided in this Article 22, each Party shall hold in confidence and shall not disclose to any person Confidential Information.

22.1.2 Scope. Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a result of a disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (4) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (5) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or Breach of this LGIA; or (6) is required, in accordance with Article 22.1.7 of the LGIA, Order of Disclosure, to be disclosed by any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under this LGIA. Information designated as Confidential Information will no longer be deemed confidential if the Party that designated the information as confidential notifies the other Party that it no longer is confidential.

22.1.3 Release of Confidential Information. Neither Party shall release or disclose Confidential

Information to any other person, except to its Affiliates (limited by the Standards of Conduct requirements), subcontractors, employees, consultants, or to parties who may be or considering providing financing to or equity participation with Interconnection Customer, or to potential purchasers or assignees of Interconnection Customer, on a need-to-know basis in connection with this LGIA, unless such person has first been advised of the confidentiality provisions of this Article 22 and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Article 22.

- 22.1.4 Rights.** Each Party retains all rights, title, and interest in the Confidential Information that each Party discloses to the other Party. The disclosure by each Party to the other Party of Confidential Information shall not be deemed a waiver by either Party or any other person or entity of the right to protect the Confidential Information from public disclosure.
- 22.1.5 No Warranties.** By providing Confidential Information, neither Party makes any warranties or representations as to its accuracy or completeness. In addition, by supplying Confidential Information, neither Party obligates itself to provide any particular information or Confidential Information to the other Party nor to enter into any further agreements or proceed with any other relationship or joint venture.
- 22.1.6 Standard of Care.** Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to the other Party under this LGIA or its regulatory requirements.

22.1.7 Order of Disclosure. If a court or a Government Authority or entity with the right, power, and apparent authority to do so requests or requires either Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Party with prompt notice of such request(s) or requirement(s) so that the other Party may seek an appropriate protective order or waive compliance with the terms of this LGIA.

Notwithstanding the absence of a protective order or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party will use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

22.1.8 Termination of Agreement. Upon termination of this LGIA for any reason, each Party shall, within ten (10) Calendar Days of receipt of a written request from the other Party, use Reasonable Efforts to destroy, erase, or delete (with such destruction, erasure, and deletion certified in writing to the other Party) or return to the other Party, without retaining copies thereof, any and all written or electronic Confidential Information received from the other Party.

22.1.9 Remedies. The Parties agree that monetary damages would be inadequate to compensate a Party for the other Party's Breach of its obligations under this Article 22. Each Party accordingly agrees that the other Party shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party Breaches or threatens to Breach its obligations under this Article 22, which equitable relief shall be granted without bond or proof of damages, and the receiving Party shall not plead in defense that there would be an

adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the Breach of this Article 22, but shall be in addition to all other remedies available at law or in equity. The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for indirect, incidental, or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Article 22.

22.1.10 Disclosure to FERC, its Staff, or a State. Notwithstanding anything in this Article 22 to the contrary, and pursuant to 18 CFR section 1b.20, if FERC or its staff, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to this LGIA, the Party shall provide the requested information to FERC or its staff, within the time provided for in the request for information. In providing the information to FERC or its staff, the Party must, consistent with 18 CFR section 388.112, request that the information be treated as confidential and non-public by FERC and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party to this LGIA prior to the release of the Confidential Information to FERC or its staff. The Party shall notify the other Party to the LGIA when it is notified by FERC or its staff that a request to release Confidential Information has been received by FERC, at which time either of the Parties may respond before such information would be made public, pursuant to 18 CFR section 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.

22.1.11 Subject to the exception in Article 22.1.10,

any information that a Party claims is competitively sensitive, commercial or financial information under this LGIA ("Confidential Information") shall not be disclosed by the other Party to any person not employed or retained by the other Party, except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the other Party, such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this LGIA or as a transmission service provider or a Control Area operator including disclosing the Confidential Information to an RTO or ISO or to a regional or national reliability organization. The Party asserting confidentiality shall notify the other Party in writing of the information it claims is confidential. Prior to any disclosures of the other Party's Confidential Information under this subparagraph, or if any third party or Governmental Authority makes any request or demand for any of the information described in this subparagraph, the disclosing Party agrees to promptly notify the other Party in writing and agrees to assert confidentiality and cooperate with the other Party in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

Article 23. Environmental Releases

- 23.1** Each Party shall notify the other Party, first orally and then in writing, of the release of any Hazardous Substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Large Generating Facility or the Interconnection Facilities, each of which may reasonably be expected to affect the other Party. The notifying Party shall: (i) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than twenty-four hours after such Party becomes aware of the occurrence; and (ii) promptly furnish to the other Party

copies of any publicly available reports filed with any Governmental Authorities addressing such events.

Article 24. Information Requirements

- 24.1 Information Acquisition.** Transmission Provider and Interconnection Customer shall submit specific information regarding the electrical characteristics of their respective facilities to each other as described below and in accordance with Applicable Reliability Standards.
- 24.2 Information Submission by Transmission Provider.** The initial information submission by Transmission Provider shall occur no later than one hundred eighty (180) Calendar Days prior to Trial Operation and shall include Transmission System information necessary to allow Interconnection Customer to select equipment and meet any system protection and stability requirements, unless otherwise agreed to by the Parties. On a monthly basis Transmission Provider shall provide Interconnection Customer a status report on the construction and installation of Transmission Provider's Interconnection Facilities and Network Upgrades, including, but not limited to, the following information: (1) progress to date; (2) a description of the activities since the last report; (3) a description of the action items for the next period; and (4) the delivery status of equipment ordered.
- 24.3 Updated Information Submission by Interconnection Customer.** The updated information submission by Interconnection Customer, including manufacturer information, shall occur no later than one hundred eighty (180) Calendar Days prior to the Trial Operation. Interconnection Customer shall submit a completed copy of the Large Generating Facility data requirements contained in Appendix 1 to the LGIP. It shall also include any additional information provided to Transmission Provider for the Cluster Study and Facilities Study. Information in this submission shall be the most current Large Generating Facility design or expected performance data. Information submitted for stability models shall be compatible with Transmission Provider standard models. If there is no compatible model, Interconnection Customer will work with a consultant mutually agreed to by the Parties to develop and supply a standard model and associated information.

If Interconnection Customer's data is materially different from what was originally provided to Transmission Provider pursuant to the Interconnection Study Agreement between Transmission Provider and Interconnection Customer, then Transmission Provider will conduct appropriate studies to determine the impact on Transmission Provider Transmission System based on the actual data submitted pursuant to this Article 24.3. The Interconnection Customer shall not begin Trial Operation until such studies are completed.

24.4 Information Supplementation. Prior to the Operation Date, the Parties shall supplement their information submissions described above in this Article 24 with any and all "as-built" Large Generating Facility information or "as-tested" performance information that differs from the initial submissions or, alternatively, written confirmation that no such differences exist. The Interconnection Customer shall conduct tests on the Large Generating Facility as required by Good Utility Practice such as an open circuit "step voltage" test on the Large Generating Facility to verify proper operation of the Large Generating Facility's automatic voltage regulator.

Unless otherwise agreed, the test conditions shall include: (1) Large Generating Facility at synchronous speed; (2) automatic voltage regulator on and in voltage control mode; and (3) a five percent change in Large Generating Facility terminal voltage initiated by a change in the voltage regulators reference voltage.

Interconnection Customer shall provide validated test recordings showing the responses of Large Generating Facility terminal and field voltages. In the event that direct recordings of these voltages is impractical, recordings of other voltages or currents that mirror the response of the Large Generating Facility's terminal or field voltage are acceptable if information necessary to translate these alternate quantities to actual Large Generating Facility terminal or field voltages is provided. Large Generating Facility testing shall be conducted and results provided to Transmission Provider for each individual generating unit in a station.

Subsequent to the Operation Date, Interconnection Customer shall provide Transmission Provider any information changes due to equipment replacement, repair, or adjustment. Transmission Provider shall provide Interconnection Customer any information changes due to

equipment replacement, repair or adjustment in the directly connected substation or any adjacent Transmission Provider-owned substation that may affect Interconnection Customer's Interconnection Facilities equipment ratings, protection or operating requirements. The Parties shall provide such information no later than thirty (30) Calendar Days after the date of the equipment replacement, repair or adjustment.

Article 25. Information Access and Audit Rights

- 25.1 Information Access.** Each Party (the "disclosing Party") shall make available to the other Party information that is in the possession of the disclosing Party and is necessary in order for the other Party to: (i) verify the costs incurred by the disclosing Party for which the other Party is responsible under this LGIA; and (ii) carry out its obligations and responsibilities under this LGIA. The Parties shall not use such information for purposes other than those set forth in this Article 25.1 and to enforce their rights under this LGIA.
- 25.2 Reporting of Non-Force Majeure Events.** Each Party (the "notifying Party") shall notify the other Party when the notifying Party becomes aware of its inability to comply with the provisions of this LGIA for a reason other than a Force Majeure event. The Parties agree to cooperate with each other and provide necessary information regarding such inability to comply, including the date, duration, reason for the inability to comply, and corrective actions taken or planned to be taken with respect to such inability to comply. Notwithstanding the foregoing, notification, cooperation or information provided under this article shall not entitle the Party receiving such notification to allege a cause for anticipatory breach of this LGIA.
- 25.3 Audit Rights.** Subject to the requirements of confidentiality under Article 22 of this LGIA, each Party shall have the right, during normal business hours, and upon prior reasonable notice to the other Party, to audit at its own expense the other Party's accounts and records pertaining to either Party's performance or either Party's satisfaction of obligations under this LGIA. Such audit rights shall include audits of the other Party's costs, calculation of invoiced amounts, Transmission Provider's efforts to allocate responsibility for the provision of

reactive support to the Transmission System, Transmission Provider's efforts to allocate responsibility for interruption or reduction of generation on the Transmission System, and each Party's actions in an Emergency Condition. Any audit authorized by this article shall be performed at the offices where such accounts and records are maintained and shall be limited to those portions of such accounts and records that relate to each Party's performance and satisfaction of obligations under this LGIA. Each Party shall keep such accounts and records for a period equivalent to the audit rights periods described in Article 25.4.

25.4 Audit Rights Periods.

25.4.1 Audit Rights Period for Construction-Related Accounts and Records. Accounts and records related to the design, engineering, procurement, and construction of Transmission Provider's Interconnection Facilities and Network Upgrades shall be subject to audit for a period of twenty-four months following Transmission Provider's issuance of a final invoice in accordance with Article 12.2.

25.4.2 Audit Rights Period for All Other Accounts and Records. Accounts and records related to either Party's performance or satisfaction of all obligations under this LGIA other than those described in Article 25.4.1 shall be subject to audit as follows: (i) for an audit relating to cost obligations, the applicable audit rights period shall be twenty-four months after the auditing Party's receipt of an invoice giving rise to such cost obligations; and (ii) for an audit relating to all other obligations, the applicable audit rights period shall be twenty-four months after the event for which the audit is sought.

25.5 Audit Results. If an audit by a Party determines that an overpayment or an underpayment has occurred, a notice of such overpayment or underpayment shall be given to the other Party together with those records from the audit which support such determination.

Article 26. Subcontractors

- 26.1 General.** Nothing in this LGIA shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this LGIA; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this LGIA in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.
- 26.2 Responsibility of Principal.** The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this LGIA. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall Transmission Provider be liable for the actions or inactions of Interconnection Customer or its subcontractors with respect to obligations of Interconnection Customer under Article 5 of this LGIA. Any applicable obligation imposed by this LGIA upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.
- 26.3 No Limitation by Insurance.** The obligations under this Article 26 will not be limited in any way by any limitation of subcontractor's insurance.

Article 27. Disputes

- 27.1 Submission.** In the event either Party has a dispute, or asserts a claim, that arises out of or in connection with this LGIA or its performance, such Party (the "disputing Party") shall provide the other Party with written notice of the dispute or claim ("Notice of Dispute"). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Party. In the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within thirty (30) Calendar Days of the other Party's receipt of the Notice of Dispute, such claim or dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the

Parties do not agree to submit such claim or dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of this LGIA.

27.2 External Arbitration Procedures. Any arbitration initiated under this LGIA shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) Calendar Days of the submission of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. The two arbitrators so chosen shall within twenty (20) Calendar Days select a third arbitrator to chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("Arbitration Rules") and any applicable FERC regulations or RTO rules; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Article 27, the terms of this Article 27 shall prevail.

27.3 Arbitration Decisions. Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision within ninety (90) Calendar Days of appointment and shall notify the Parties in writing of such decision and the reasons therefore. The arbitrator(s) shall be authorized only to interpret and apply the provisions of this LGIA and shall have no power to modify or change any provision of this Agreement in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed with FERC if it affects jurisdictional rates, terms and conditions of service, Interconnection Facilities, or Network Upgrades.

27.4 Costs. Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three member panel and one half of the cost of the third arbitrator chosen; or (2) one half the cost of the single arbitrator jointly chosen by the Parties.

Article 28. Representations, Warranties, and Covenants

28.1 General. Each Party makes the following representations, warranties and covenants:

28.1.1 Good Standing. Such Party is duly organized, validly existing and in good standing under the laws of the state in which it is organized, formed, or incorporated, as applicable; that it is qualified to do business in the state or states in which the Large Generating Facility, Interconnection Facilities and Network Upgrades owned by such Party, as applicable, are located; and that it has the corporate power and authority to own its properties, to carry on its business as now being conducted and to enter into this LGIA and carry out the transactions contemplated hereby and perform and carry out all covenants and obligations on its part to be performed under and pursuant to this LGIA.

28.1.2 Authority. Such Party has the right, power and authority to enter into this LGIA, to become a Party hereto and to perform its obligations hereunder. This LGIA is a legal, valid and binding obligation of such Party, enforceable against such Party in accordance with its terms, except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws affecting creditors' rights generally and by general equitable principles (regardless of whether enforceability is sought in a proceeding in equity or at law).

28.1.3 No Conflict. The execution, delivery and performance of this LGIA does not violate or

conflict with the organizational or formation documents, or bylaws or operating agreement, of such Party, or any judgment, license, permit, order, material agreement or instrument applicable to or binding upon such Party or any of its assets.

28.1.4 Consent and Approval. Such Party has sought or obtained, or, in accordance with this LGIA will seek or obtain, each consent, approval, authorization, order, or acceptance by any Governmental Authority in connection with the execution, delivery and performance of this LGIA, and it will provide to any Governmental Authority notice of any actions under this LGIA that are required by Applicable Laws and Regulations.

Article 29. Joint Operating Committee

29.1 Joint Operating Committee. Except in the case of ISOs and RTOs, Transmission Provider shall constitute a Joint Operating Committee to coordinate operating and technical considerations of Interconnection Service. At least six (6) months prior to the expected Initial Synchronization Date, Interconnection Customer and Transmission Provider shall each appoint one representative and one alternate to the Joint Operating Committee. Each Interconnection Customer shall notify Transmission Provider of its appointment in writing. Such appointments may be changed at any time by similar notice. The Joint Operating Committee shall meet as necessary, but not less than once each calendar year, to carry out the duties set forth herein. The Joint Operating Committee shall hold a meeting at the request of either Party, at a time and place agreed upon by the representatives. The Joint Operating Committee shall perform all of its duties consistent with the provisions of this LGIA. Each Party shall cooperate in providing to the Joint Operating Committee all information required in the performance of the Joint Operating Committee's duties. All decisions and agreements, if any, made by the Joint Operating Committee, shall be evidenced in writing. The duties of the Joint Operating Committee shall include the following:

29.1.1 Establish data requirements and operating record requirements.

- 29.1.2 Review the requirements, standards, and procedures for data acquisition equipment, protective equipment, and any other equipment or software.
- 29.1.3 Annually review the one (1) year forecast of maintenance and planned outage schedules of Transmission Provider's and Interconnection Customer's facilities at the Point of Interconnection.
- 29.1.4 Coordinate the scheduling of maintenance and planned outages on the Interconnection Facilities, the Large Generating Facility and other facilities that impact the normal operation of the interconnection of the Large Generating Facility to the Transmission System.
- 29.1.5 Ensure that information is being provided by each Party regarding equipment availability.
- 29.1.6 Perform such other duties as may be conferred upon it by mutual agreement of the Parties.

Article 30. Miscellaneous

- 30.1 **Binding Effect.** This LGIA and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.
- 30.2 **Conflicts.** In the event of a conflict between the body of this LGIA and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this LGIA shall prevail and be deemed the final intent of the Parties.
- 30.3 **Rules of Interpretation.** This LGIA, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this LGIA, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any

agreement (including this LGIA), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any Applicable Laws and Regulations means such Applicable Laws and Regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section or Appendix means such Article of this LGIA or such Appendix to this LGIA, or such Section to the LGIP or such Appendix to the LGIP, as the case may be; (6) "hereunder", "hereof", "herein", "hereto" and words of similar import shall be deemed references to this LGIA as a whole and not to any particular Article or other provision hereof or thereof; (7) "including" (and with correlative meaning "include") means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, "from" means "from and including", "to" means "to but excluding" and "through" means "through and including".

- 30.4 Entire Agreement.** This LGIA, including all Appendices and Schedules attached hereto, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this LGIA. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under this LGIA.
- 30.5 No Third Party Beneficiaries.** This LGIA is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.
- 30.6 Waiver.** The failure of a Party to this LGIA to insist, on any occasion, upon strict performance of any provision of this LGIA will not be considered a waiver of any

obligation, right, or duty of, or imposed upon, such Party. Any waiver at any time by either Party of its rights with respect to this LGIA shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this LGIA. Termination or Default of this LGIA for any reason by Interconnection Customer shall not constitute a waiver of Interconnection Customer's legal rights to obtain an interconnection from Transmission Provider. Any waiver of this LGIA shall, if requested, be provided in writing.

- 30.7 Headings.** The descriptive headings of the various Articles of this LGIA have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this LGIA.
- 30.8 Multiple Counterparts.** This LGIA may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.
- 30.9 Amendment.** The Parties may by mutual agreement amend this LGIA by a written instrument duly executed by the Parties.
- 30.10 Modification by the Parties.** The Parties may by mutual agreement amend the Appendices to this LGIA by a written instrument duly executed by the Parties. Such amendment shall become effective and a part of this LGIA upon satisfaction of all Applicable Laws and Regulations.
- 30.11 Reservation of Rights.** Transmission Provider shall have the right to make a unilateral filing with FERC to modify this LGIA with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this LGIA pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this LGIA shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to

the extent that the Parties otherwise mutually agree as provided herein.

30.12 No Partnership. This LGIA shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

IN WITNESS WHEREOF, the Parties have executed this LGIA in duplicate originals, each of which shall constitute and be an original effective Agreement between the Parties.

[Insert name of Transmission Provider or Transmission Owner, if applicable]

By: _____

Title: _____

Date: _____

[Insert name of Interconnection Customer]

By: _____

Title: _____

Date: _____

Appendix A to LGIA

Interconnection Facilities, Network Upgrades, Distribution
Upgrades, and Contingent Facilities

1. Interconnection Facilities:

(a) [insert Interconnection Customer's Interconnection
Facilities]:

(b) [insert Transmission Provider's Interconnection
Facilities]:

2. Network Upgrades:

(a) [insert Stand Alone Network Upgrades]:

(b) [insert Other Network Upgrades]:

3. Distribution Upgrades:

4. Contingent Facilities

Appendix B To LGIA

Milestones

Appendix C To LGIA
Interconnection Details

Appendix D To LGIA

Security Arrangements Details

Infrastructure security of Transmission System equipment and operations and control hardware and software is essential to ensure day-to-day Transmission System reliability and operational security. FERC will expect all Transmission Providers, market participants, and Interconnection Customers interconnected to the Transmission System to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and, eventually, best practice recommendations from the electric reliability authority. All public utilities will be expected to meet basic standards for system infrastructure and operational security, including physical, operational, and cyber-security practices.

Appendix E To LGIA

Commercial Operation Date

This Appendix E is a part of the LGIA between Transmission Provider and Interconnection Customer.

[Date]

[Transmission Provider Address]

Re: _____ Large Generating Facility

Dear _____:

On **[Date]** **[Interconnection Customer]** has completed Trial Operation of Unit No. _____. This letter confirms that **[Interconnection Customer]** commenced Commercial Operation of Unit No. _ at the Large Generating Facility, effective as of **[Date plus one day]**.

Thank you.

[Signature]

[Interconnection Customer Representative]

Appendix F to LGIA

Addresses for Delivery of Notices and Billings

Notices, Billings and Payments:

Transmission Provider:

US Mail Deliveries: PacifiCorp Transmission Services
Attn: Central Cashiers Office
PO Box 2757
Portland, OR 97208-2757

Other Deliveries: Central Cashiers Office
Attn: PacifiCorp Transmission Services
825 NE Multnomah Street, Suite 550
Portland OR 97232

Phone Number: [Add Central Cashiers Phone Number]

Interconnection Customer:

[To be supplied.]

Alternative Forms of Delivery of Notices (telephone, facsimile or email):

Transmission Provider:

Director, Transmission Services	[Add phone number]
Manager, Transmission Scheduling	[Add phone number]
Manager, Interconnection Services	[Add phone number]
Manager, Transmission Services	[Add phone number]
Transmission Business Facsimile	[Add facsimile number]

OASIS Address:

<<http://www.oasis.pacificorp.com/oasis/ppw/main.htmlx>>

Interconnection Customer:

[To be supplied.]

Appendix G to LGIA

INTERCONNECTION REQUIREMENTS FOR A WIND GENERATING PLANT

Appendix G sets forth requirements and provisions specific to a wind generating plant. All other requirements of this LGIA continue to apply to wind generating plant interconnections.

A. Technical Standards Applicable to a Wind Generating Plant

i. Low Voltage Ride-Through (LVRT) Capability

A wind generating plant shall be able to remain online during voltage disturbances up to the time periods and associated voltage levels set forth in the standard below. The LVRT standard provides for a transition period standard and a post-transition period standard.

Transition Period LVRT Standard

The transition period standard applies to wind generating plants subject to FERC Order 661 that have either: (i) interconnection agreements signed and filed with the Commission, filed with the Commission in unexecuted form, or filed with the Commission as non-conforming agreements between January 1, 2006 and December 31, 2006, with a scheduled in-service date no later than December 31, 2007, or (ii) wind generating turbines subject to a wind turbine procurement contract executed prior to December 31, 2005, for delivery through 2007.

1. Wind generating plants are required to remain in-service during three-phase faults with normal clearing (which is a time period of approximately 4 - 9 cycles) and single line to ground faults with delayed clearing, and subsequent post-fault voltage recovery to prefault voltage unless clearing the fault effectively disconnects the generator from the system. The clearing time requirement for a three-phase fault will be specific to the wind generating plant substation location, as determined by and documented by the transmission provider. The maximum clearing time the wind generating plant shall be required to withstand for a three-phase fault shall be 9 cycles at a voltage as low as 0.15 p.u., as measured at the high side of the wind generating plant step-up transformer (i.e. the transformer that steps the voltage up to the transmission

interconnection voltage or "GSU"), after which, if the fault remains following the location-specific normal clearing time for three-phase faults, the wind generating plant may disconnect from the transmission system.

2. This requirement does not apply to faults that would occur between the wind generator terminals and the high side of the GSU or to faults that would result in a voltage lower than 0.15 per unit on the high side of the GSU serving the facility.
3. Wind generating plants may be tripped after the fault period if this action is intended as part of a special protection system.
4. Wind generating plants may meet the LVRT requirements of this standard by the performance of the generators or by installing additional equipment (e.g., Static VAR Compensator, etc.) within the wind generating plant or by a combination of generator performance and additional equipment.
5. Existing individual generator units that are, or have been, interconnected to the network at the same location at the effective date of the Appendix G LVRT Standard are exempt from meeting the Appendix G LVRT Standard for the remaining life of the existing generation equipment. Existing individual generator units that are replaced are required to meet the Appendix G LVRT Standard.

Post-transition Period LVRT Standard

All wind generating plants subject to FERC Order No. 661 and not covered by the transition period described above must meet the following requirements:

1. Wind generating plants are required to remain in-service during three-phase faults with normal clearing (which is a time period of approximately 4 - 9 cycles) and single line to ground faults with delayed clearing, and subsequent post-fault voltage recovery to prefault voltage unless clearing the fault effectively disconnects the generator from the system. The clearing time requirement for a three-phase fault will be specific to the wind generating plant substation location, as determined by and documented by the transmission provider. The maximum clearing time the wind generating plant shall be required to withstand

for a three-phase fault shall be 9 cycles after which, if the fault remains following the location-specific normal clearing time for three-phase faults, the wind generating plant may disconnect from the transmission system. A wind generating plant shall remain interconnected during such a fault on the transmission system for a voltage level as low as zero volts, as measured at the high voltage side of the wind GSU.

2. This requirement does not apply to faults that would occur between the wind generator terminals and the high side of the GSU.
3. Wind generating plants may be tripped after the fault period if this action is intended as part of a special protection system.
4. Wind generating plants may meet the LVRT requirements of this standard by the performance of the generators or by installing additional equipment (e.g., Static VAR Compensator) within the wind generating plant or by a combination of generator performance and additional equipment.
5. Existing individual generator units that are, or have been, interconnected to the network at the same location at the effective date of the Appendix G LVRT Standard are exempt from meeting the Appendix G LVRT Standard for the remaining life of the existing generation equipment. Existing individual generator units that are replaced are required to meet the Appendix G LVRT Standard.

ii. Power Factor Design Criteria (Reactive Power)

The following reactive power requirements apply only to a newly interconnecting wind generating plant that has executed a Facilities Study Agreement as of the effective date of the Final Rule establishing the reactive power requirements for non-synchronous generators in section 9.6.1 of this LGIA (Order No. 827). A wind generating plant to which this provision applies shall maintain a power factor within the range of 0.95 leading to 0.95 lagging, measured at the Point of Interconnection as defined in this LGIA, if the Transmission Provider's System Impact Study shows that such a requirement is necessary to ensure safety or reliability. The power factor range standard can be met by using, for example, power electronics designed to supply this level of reactive capability (taking into account

any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors if agreed to by the Transmission Provider, or a combination of the two. The Interconnection Customer shall not disable power factor equipment while the wind plant is in operation. Wind plants shall also be able to provide sufficient dynamic voltage support in lieu of the power system stabilizer and automatic voltage regulation at the generator excitation system if the System Impact Study shows this to be required for system safety or reliability.

iii. Supervisory Control and Data Acquisition (SCADA) Capability

The wind plant shall provide SCADA capability to transmit data and receive instructions from the Transmission Provider to protect system reliability. The Transmission Provider and the wind plant Interconnection Customer shall determine what SCADA information is essential for the proposed wind plant, taking into account the size of the plant and its characteristics, location, and importance in maintaining generation resource adequacy and transmission system reliability in its area.

Appendix 7 to LGIP

INTERCONNECTION PROCEDURES FOR A

WIND GENERATING PLANT

Appendix 7 sets forth procedures specific to a wind generating plant. All other requirements of this LGIP continue to apply to wind generating plant interconnections.

A. Special Procedures Applicable to Wind Generators

The wind plant Interconnection Customer, in completing the Interconnection Request required by section 3.3 of this LGIP, may provide to the Transmission Provider a set of preliminary electrical design specifications depicting the wind plant as a single equivalent generator. Upon satisfying these and other applicable Interconnection Request conditions, the wind plant may enter the queue and receive the base case data as provided for in this LGIP.

No later than six months after submitting an Interconnection Request completed in this manner, the wind plant Interconnection Customer must submit completed detailed electrical design specifications and other data (including collector system layout data) needed to allow the Transmission Provider to complete the System Impact Study.

APPENDIX 8 TO THE LGIP

TECHNOLOGICAL ADVANCEMENT STUDY AGREEMENT

THIS AGREEMENT is made and entered into this ___ day of _____, 20__ by and between [Customer Name (Project Name, QXXXX)], a [Type of company] organized and existing under the laws of the State of _____, ("Interconnection Customer,") and PacifiCorp a Corporation existing under the laws of the State of Oregon ("Transmission Provider"). Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

RECITALS

WHEREAS, the Interconnection Customer submitted a generation interconnection request dated _____ requesting Interconnection Customer's Large Generating Facility to be connected to Transmission Provider's electrical system;

WHEREAS, Interconnection Customer is proposing to modify its generation interconnection request, as described in the Interconnection Customer's technological advancement request submitted by Interconnection Customer dated _____;

WHEREAS, Transmission Provider has determined that further study is required to conclude whether the technological advancement request is a Permissible Technological Advancement;

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Transmission Provider's FERC-approved Large Generator Interconnection Procedures ("LGIP");
- 2.0 Interconnection Customer elects and Transmission Provider shall cause to be performed a study ("Technological Advancement Study") consistent with Section 39.4.6 of the LGIP.
- 3.0 The scope of the Technological Advancement study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The Technological Advancement Study will be based on

the assumptions set forth in Attachment A to this Agreement, the results of the technical information provided by Interconnection Customer, applicable requirements in Transmission Provider's LGIP, and current Policy 138 or Policy 139, as applicable.

- 5.0 Transmission Provider reserves the right to request additional technical information from Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Technological Advancement Study. If Interconnection Customer modifies the technical information provided therein, the time to complete the modification assessment may be extended.
- 6.0 The Technological Advancement study report shall provide the following information:
- Summary of study conclusions;
 - Determination of whether the Interconnection Customer's proposed request a Permissible Technological Advancement; or
 - Determination and explanation of whether the Interconnection Customer's proposed request is a material modification, requiring a new application to be submitted;
- 7.0 Interconnection Customer shall provide a deposit of \$10,000 for the performance of the Technological Advancement Study. Transmission Provider's good faith estimate for the time of completion of the modification assessment is 30 calendar days from execution of this Agreement.

Upon receipt of the Technological Advancement Study, Transmission Provider shall charge and Interconnection Customer shall pay the actual costs of the Technological Advancement Study.

Any difference between the deposit and the actual cost of the study shall be paid by or refunded to Interconnection Customer, as appropriate.

- 8.0 Miscellaneous. The Technological Advancement Study Agreement shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing

law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, and that are consistent with regional practices, Applicable Laws and Regulations, and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of the LGIP and the LGIA.

IN WITNESS THEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

Transmission Provider

By: _____

Title: _____

Date: _____

[Customer Name (Project Name, QXXXX)]

By: _____

Title: _____

Date: _____

Attachment A

**ASSUMPTIONS USED IN CONDUCTING THE
TECHNOLOGICAL ADVANCEMENT STUDY**

The Technological Advancement Study will be based upon the following assumptions:

Designation of changes to the configuration or technical details of the generating facility.

Transmission Provider's good faith estimate for the cost of completion of the Technological Advancement Study is \$10,000. Transmission Provider's actual cost shall include all direct

costs plus applicable overheads.

ATTACHMENT O

**ATTACHMENTS TO SMALL GENERATOR INTERCONNECTION PROCEDURES
(Refer to Part V of the Tariff)**

- APPENDIX 1 Glossary of Terms
- APPENDIX 2 Small Generator Interconnection Request
- APPENDIX 3 Certification Codes and Standards
- APPENDIX 4 Certification of Small Generator Equipment Packages
- APPENDIX 5 Application, Procedures, and Terms and Conditions
for Interconnecting a Certified Inverter-Based
Small Generating Facility No Larger than 10 kW ("10
kW Inverter Process")
- APPENDIX 6 [RESERVED]
- APPENDIX 7 [RESERVED]
- APPENDIX 8 Facilities Study Agreement
- APPENDIX 9 Small Generator Interconnection Agreement (SGIA)

APPENDIX 1 TO SGIP

Glossary of Terms

10 kW Inverter Process - The procedure for evaluating an Interconnection Request for a certified inverter-based Small Generating Facility no larger than 10 kW that uses the section 50 screens. The application process uses an all-in-one document that includes a simplified Interconnection Request, simplified procedures, and a brief set of terms and conditions. See SGIP Appendix 5 to Attachment O of the Tariff.

Affected System - An electric system other than the Transmission Provider's Transmission System that may be affected by the proposed interconnection.

Business Day - Monday through Friday, excluding Federal Holidays.

Cluster - shall have the meaning set out in Section 36 of Transmission Provider's Tariff.

Cluster Request Window - shall have the meaning set out in Section 36 of Transmission Provider's Tariff.

Cluster Re-Study(ies) - shall have the meaning set out in Section 36 of Transmission Provider's Tariff.

Cluster Re-Study Report - shall have the meaning set out in Section 36 of Transmission Provider's Tariff.

Cluster Study - shall have the meaning set out in Section 36 of Transmission Provider's Tariff.

Cluster Study Agreement - shall have the meaning set out in Section 36 of Transmission Provider's Tariff.

Cluster Study Report - shall have the meaning set out in Section 36 of Transmission Provider's Tariff.

Distribution System - The Transmission Provider's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which Distribution Systems operate differ among areas.

Distribution Upgrades - The additions, modifications, and upgrades to the Transmission Provider's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Small Generating Facility and render the transmission service necessary to effect the Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

Fast Track Process - The procedure for evaluating an Interconnection Request for a certified Small Generating Facility that meets the eligibility requirements of section 50.1 and includes the section 50 screens, customer options meeting, and optional supplemental review.

Good Utility Practice - Any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

Informational Interconnection Study(ies) - shall have the meaning set out in Section 36 of Transmission Provider's Tariff.

Interconnection Customer - Any entity, including the Transmission Provider, the Transmission Owner or any of the affiliates or subsidiaries of either, that proposes to interconnect its Small Generating Facility with the Transmission Provider's Transmission System.

Interconnection Facilities - The Transmission Provider's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Small Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Small Generating Facility to the Transmission Provider's Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades or Network Upgrades.

Interconnection Request - The Interconnection Customer's request, in accordance with the Tariff, to interconnect a new Small Generating Facility, or to increase the capacity of, or make a Material Modification to the operating characteristics of, an existing Small Generating Facility that is interconnected with the Transmission Provider's Transmission System.

Material Modification - A modification that has a material impact on the cost or timing of any Interconnection Request with a later queue priority date.

Network Resource - Any designated generating resource owned, purchased, or leased by a Network Customer under the Network Integration Transmission Service Tariff. Network Resources do not include any resource, or any portion thereof, that is committed for sale to third parties or otherwise cannot be called upon to meet the Network Customer's Network Load on a non-interruptible basis.

Network Resource Interconnection Service - An Interconnection Service that allows the Interconnection Customer to integrate its Generating Facility with the Transmission Provider's System (1) in a manner comparable to that in which the Transmission Provider integrates its generating facilities to serve native load customers; or (2) in an RTO or ISO with market based congestion management, in the same manner as Network Resources. Network Resource Interconnection Service in and of itself does not convey transmission service.

Network Upgrades - Additions, modifications, and upgrades to the Transmission Provider's Transmission System required at or beyond the point at which the Small Generating Facility interconnects with the Transmission Provider's Transmission System to accommodate the interconnection with the Small Generating Facility to the Transmission Provider's Transmission System. Network Upgrades do not include Distribution Upgrades.

Party or Parties - The Transmission Provider, Transmission Owner, Interconnection Customer or any combination of the above.

Point of Interconnection - The point where the Interconnection Facilities connect with the Transmission Provider's Transmission System.

Queue Position - The order of a valid Interconnection Request, relative to all other pending valid Interconnection Requests, that is established based upon the date and time of receipt of

the valid Interconnection Request by the Transmission Provider.

Small Generating Facility - The Interconnection Customer's device for the production and/or storage of later injection of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

Study Process - The procedure for evaluating an Interconnection Request that includes the section 51 scoping meeting, Cluster Study, and facilities study.

Transition Cluster Study - shall have the meaning set forth in Attachment W to Transmission Provider's Tariff.

Transition Request - shall have the meaning set forth in Attachment W to Transmission Provider's Tariff.

Transmission Owner - The entity that owns, leases or otherwise possesses an interest in the portion of the Transmission System at the Point of Interconnection and may be a Party to the Small Generator Interconnection Agreement to the extent necessary.

Transmission Provider - The public utility (or its designated agent) that owns, controls, or operates transmission or distribution facilities used for the transmission of electricity in interstate commerce and provides transmission service under the Tariff. The term Transmission Provider should be read to include the Transmission Owner when the Transmission Owner is separate from the Transmission Provider.

Transmission System - The facilities owned, controlled or operated by the Transmission Provider or the Transmission Owner that are used to provide transmission service under the Tariff.

Upgrades - The required additions and modifications to the Transmission Provider's Transmission System at or beyond the Point of Interconnection. Upgrades may be Network Upgrades or Distribution Upgrades. Upgrades do not include Interconnection Facilities.

APPENDIX 2 TO SGIP

**SMALL GENERATOR INTERCONNECTION REQUEST
(Application Form)**

Transmission Provider: _____

Designated Contact Person: _____

Address: _____

Telephone Number: _____

Fax: _____

E-Mail Address: _____

An Interconnection Request is considered complete when it provides all applicable and correct information required below. Per SGIP section 49.5, documentation of site control must be submitted with the Interconnection Request.

Preamble and Instructions

An Interconnection Customer who requests a Federal Energy Regulatory Commission jurisdictional interconnection must submit this Interconnection Request by hand delivery, mail, e-mail, or fax to the Transmission Provider.

Processing Fee or Deposit:

If the Interconnection Request is submitted under the Fast Track Process, the non-refundable processing fee is \$500.

If the Interconnection Request is submitted under the Study Process, whether a new submission or an Interconnection Request that did not pass the Fast Track Process, the Interconnection Customer shall submit to the Transmission Provider a deposit not to exceed \$1,000 towards the cost of the Cluster Study.

Interconnection Customer Information

Legal Name of the Interconnection Customer (or, if an individual, individual's name)

Name: _____

Contact Person: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Facility Location (if different from above): _____

Telephone (Day): _____ Telephone (Evening): _____

Fax: _____ E-Mail Address: _____

Alternative Contact Information (if different from the Interconnection Customer)

Contact Name: _____

Title: _____

Address: _____

Telephone (Day): _____ Telephone (Evening): _____

Fax: _____ E-Mail Address: _____

Application is for: New Small Generating Facility
 Capacity addition to Existing Small Generating Facility

If capacity addition to existing facility, please describe: _____

Will the Small Generating Facility be used for any of the following?

Net Metering? Yes ___ No ___
To Supply Power to the Interconnection Customer? Yes ___ No ___
To Supply Power to Others? Yes ___ No ___

For installations at locations with existing electric service to which the proposed Small Generating Facility will interconnect, provide:

_____ (Local Electric Service Provider*) _____ (Existing Account Number*)

[*To be provided by the Interconnection Customer if the local electric service provider is different from the Transmission Provider]

Contact Name: _____

Title: _____

Address: _____

Telephone (Day): _____ Telephone (Evening): _____

Fax: _____ E-Mail Address: _____

Requested Point of Interconnection: _____

Interconnection Customer's Requested In-Service Date: _____

Small Generating Facility Information

Data apply only to the Small Generating Facility, not the Interconnection Facilities.

Energy Source: ___Solar ___Wind ___Hydro Hydro Type (e.g. Run-of-River): _____

___Diesel ___Natural Gas ___Fuel Oil ___Other (state type)

Prime Mover: ___Fuel Cell ___Recip Engine ___Gas Turb ___Steam Turb
___Microturbine ___PV ___Other

Type of Generator: ___Synchronous ___Induction ___Inverter

Generator Nameplate Rating: _____kW (Typical) Generator Nameplate kVAR: _____

Interconnection Customer or Customer-Site Load: _____kW (if none, so state)

Typical Reactive Load (if known): _____

Maximum Physical Export Capability Requested: _____ kW

Primary frequency response operating range for electric storage resources:

Minimum State of Charge: _____

Maximum State of Charge: _____

List components of the Small Generating Facility equipment package that are currently certified:

Equipment Type	Certifying Entity
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____

Is the prime mover compatible with the certified protective relay package? ____Yes
____No

Generator (or solar collector)

Manufacturer, Model Name & Number: _____

Version Number: _____

Nameplate Output Power Rating in kW: (Summer) _____ (Winter) _____

Nameplate Output Power Rating in kVA: (Summer) _____ (Winter) _____

Individual Generator Power Factor

Rated Power Factor: Leading: _____ Lagging: _____

Total Number of Generators in wind farm to be interconnected pursuant to this

Interconnection Request: _____ Elevation: _____ ____Single phase ____Three
phase

Inverter Manufacturer, Model Name & Number (if used):

List of adjustable set points for the protective equipment or software:

Note: A completed Power Systems Load Flow data sheet must be supplied with the
Interconnection Request.

Small Generating Facility Characteristic Data (for inverter-based machines)

Max design fault contribution current: _____ Instantaneous ____ or RMS? ____

Harmonics Characteristics: _____

Start-up requirements: _____

Small Generating Facility Characteristic Data (for rotating machines)

RPM Frequency: _____

(*) Neutral Grounding Resistor (If Applicable): _____

Synchronous Generators:

Direct Axis Synchronous Reactance, X_d : _____ P.U.

Direct Axis Transient Reactance, X'_d : _____ P.U.

Direct Axis Subtransient Reactance, X''_d : _____ P.U.

Negative Sequence Reactance, X_2 : _____ P.U.

Zero Sequence Reactance, X_0 : _____ P.U.

KVA Base: _____
Field Volts: _____
Field Amperes: _____

Induction Generators:

Motoring Power (kW): _____
 I_2^2t or K (Heating Time Constant): _____
Rotor Resistance, Rr: _____
Stator Resistance, Rs: _____
Stator Reactance, Xs: _____
Rotor Reactance, Xr: _____
Magnetizing Reactance, Xm: _____
Short Circuit Reactance, Xd'': _____
Exciting Current: _____
Temperature Rise: _____
Frame Size: _____
Design Letter: _____
Reactive Power Required In Vars (No Load): _____
Reactive Power Required In Vars (Full Load): _____
Total Rotating Inertia, H: _____ Per Unit on kVA Base

Note: Please contact the Transmission Provider prior to submitting the Interconnection Request to determine if the specified information above is required.

Excitation and Governor System Data for Synchronous Generators Only

Provide appropriate IEEE model block diagram of excitation system, governor system and power system stabilizer (PSS) in accordance with the regional reliability council criteria. A PSS may be determined to be required by applicable studies. A copy of the manufacturer's block diagram may not be substituted.

Interconnection Facilities Information

Will a transformer be used between the generator and the point of common coupling? ___ Yes
___ No

Will the transformer be provided by the Interconnection Customer? ___ Yes ___ No

Transformer Data (If Applicable, for Interconnection Customer-Owned Transformer):

Is the transformer: ___ single phase ___ three phase? Size:
_____ kVA

Transformer Impedance: _____% on _____ kVA Base

If Three Phase:

Transformer Primary: _____ Volts _____ Delta _____ Wye _____ Wye Grounded
 Transformer Secondary: _____ Volts _____ Delta _____ Wye _____ Wye Grounded
 Transformer Tertiary: _____ Volts _____ Delta _____ Wye _____ Wye Grounded

Transformer Fuse Data (If Applicable, for Interconnection Customer-Owned Fuse):

(Attach copy of fuse manufacturer's Minimum Melt and Total Clearing Time-Current Curves)

Manufacturer: _____ Type: _____ Size: _____ Speed:

Interconnecting Circuit Breaker (if applicable):

Manufacturer: _____ Type: _____
 Load Rating (Amps): _____ Interrupting Rating (Amps): _____ Trip Speed (Cycles):

Interconnection Protective Relays (If Applicable):

If Microprocessor-Controlled:

List of Functions and Adjustable Setpoints for the protective equipment or software:

Setpoint Function	Minimum	Maximum
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____
6. _____	_____	_____

If Discrete Components:

(Enclose Copy of any Proposed Time-Overcurrent Coordination Curves)

Manufacturer: _____ Type: _____ Style/Catalog No.: _____ Proposed Setting: _____
 Manufacturer: _____ Type: _____ Style/Catalog No.: _____ Proposed Setting: _____
 Manufacturer: _____ Type: _____ Style/Catalog No.: _____ Proposed Setting: _____
 Manufacturer: _____ Type: _____ Style/Catalog No.: _____ Proposed Setting: _____
 Manufacturer: _____ Type: _____ Style/Catalog No.: _____ Proposed Setting: _____

Current Transformer Data (If Applicable):

(Enclose Copy of Manufacturer's Excitation and Ratio Correction Curves)

Manufacturer: _____
Type: _____ Accuracy Class: _ Proposed Ratio Connection: _____

Manufacturer: _____
Type: _____ Accuracy Class: _ Proposed Ratio Connection: _____

Potential Transformer Data (If Applicable):

Manufacturer: _____
Type: _____ Accuracy Class: _ Proposed Ratio Connection: _____

Manufacturer: _____
Type: _____ Accuracy Class: _ Proposed Ratio Connection: _____

General Information

Enclose copy of site electrical one-line diagram showing the configuration of all Small Generating Facility equipment, current and potential circuits, and protection and control schemes. This one-line diagram must be signed and stamped by a licensed Professional Engineer if the Small Generating Facility is larger than 50 kW. Is One-Line Diagram Enclosed?
___ Yes ___ No

Enclose copy of any site documentation that indicates the precise physical location of the proposed Small Generating Facility (e.g., USGS topographic map or other diagram or documentation).

Proposed location of protective interface equipment on property (include address if different from the Interconnection Customer's address)

Enclose copy of any site documentation that describes and details the operation of the protection and control schemes. Is Available Documentation Enclosed? ___ Yes ___ No

Enclose copies of schematic drawings for all protection and control circuits, relay current circuits, relay potential circuits, and alarm/monitoring circuits (if applicable).
Are Schematic Drawings Enclosed? ___ Yes ___ No

Applicant Signature

I hereby certify that, to the best of my knowledge, all the information provided in this Interconnection Request is true and correct.

For Interconnection Customer: _____ Date: _____

APPENDIX 3 TO SGIP

Certification Codes and Standards

IEEE1547 Standard for Interconnecting Distributed Resources with Electric Power Systems (including use of IEEE 1547.1 testing protocols to establish conformity)

UL 1741 Inverters, Converters, and Controllers for Use in Independent Power Systems

IEEE Std 929-2000 IEEE Recommended Practice for Utility Interface of Photovoltaic (PV) Systems

NFPA 70 (2002), National Electrical Code

IEEE Std C37.90.1-1989 (R1994), IEEE Standard Surge Withstand Capability (SWC) Tests for Protective Relays and Relay Systems

IEEE Std C37.90.2 (1995), IEEE Standard Withstand Capability of Relay Systems to Radiated Electromagnetic Interference from Transceivers

IEEE Std C37.108-1989 (R2002), IEEE Guide for the Protection of Network Transformers

IEEE Std C57.12.44-2000, IEEE Standard Requirements for Secondary Network Protectors

IEEE Std C62.41.2-2002, IEEE Recommended Practice on Characterization of Surges in Low Voltage (1000V and Less) AC Power Circuits

IEEE Std C62.45-1992 (R2002), IEEE Recommended Practice on Surge Testing for Equipment Connected to Low-Voltage (1000V and Less) AC Power Circuits

ANSI C84.1-1995 Electric Power Systems and Equipment - Voltage Ratings (60 Hertz)

IEEE Std 100-2000, IEEE Standard Dictionary of Electrical and Electronic Terms

NEMA MG 1-1998, Motors and Small Resources, Revision 3

IEEE Std 519-1992, IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems

NEMA MG 1-2003 (Rev 2004), Motors and Generators, Revision 1

APPENDIX 4 TO SGIP

Certification of Small Generator Equipment Packages

- 1.0 Small Generating Facility equipment proposed for use separately or packaged with other equipment in an interconnection system shall be considered certified for interconnected operation if (1) it has been tested in accordance with industry standards for continuous utility interactive operation in compliance with the appropriate codes and standards referenced below by any Nationally Recognized Testing Laboratory (NRTL) recognized by the United States Occupational Safety and Health Administration to test and certify interconnection equipment pursuant to the relevant codes and standards listed in SGIP Appendix 3 to Attachment O of the Tariff, (2) it has been labeled and is publicly listed by such NRTL at the time of the interconnection application, and (3) such NRTL makes readily available for verification all test standards and procedures it utilized in performing such equipment certification, and, with consumer approval, the test data itself. The NRTL may make such information available on its website and by encouraging such information to be included in the manufacturer's literature accompanying the equipment.
- 2.0 The Interconnection Customer must verify that the intended use of the equipment falls within the use or uses for which the equipment was tested, labeled, and listed by the NRTL.
- 3.0 Certified equipment shall not require further type-test review, testing, or additional equipment to meet the requirements of this interconnection procedure; however, nothing herein shall preclude the need for an on-site commissioning test by the parties to the interconnection nor follow-up production testing by the NRTL.
- 4.0 If the certified equipment package includes only interface components (switchgear, inverters, or other interface devices), then an Interconnection Customer must show that the generator or other electric source being utilized with the equipment package is compatible with the equipment package and is consistent with the testing and listing specified for this type of interconnection equipment.
- 5.0 Provided the generator or electric source, when combined with the equipment package, is within the range of

capabilities for which it was tested by the NRTL, and does not violate the interface components' labeling and listing performed by the NRTL, no further design review, testing or additional equipment on the customer side of the point of common coupling shall be required to meet the requirements of this interconnection procedure.

- 6.0 An equipment package does not include equipment provided by the utility.
- 7.0 Any equipment package approved and listed in a state by that state's regulatory body for interconnected operation in that state prior to the effective date of these small generator interconnection procedures shall be considered certified under these procedures for use in that state.

APPENDIX 5 TO SGIP

Application, Procedures, and Terms and Conditions for Interconnecting a Certified Inverter-Based Small Generating Facility No Larger than 10 kW ("10 kW Inverter Process")

- 1.0 The Interconnection Customer ("Customer") completes the Interconnection Request ("Application") and submits it to the Transmission Provider ("Company").
- 2.0 The Company acknowledges to the Customer receipt of the Application within three Business Days of receipt.
- 3.0 The Company evaluates the Application for completeness and notifies the Customer within ten Business Days of receipt that the Application is or is not complete and, if not, advises what material is missing.
- 4.0 The Company verifies that the Small Generating Facility can be interconnected safely and reliably using the screens contained in the Fast Track Process in the Small Generator Interconnection Procedures (SGIP). The Company has 15 Business Days to complete this process. Unless the Company determines and demonstrates that the Small Generating Facility cannot be interconnected safely and reliably, the Company approves the Application and returns it to the Customer. Note to Customer: Please check with the Company before submitting the Application if disconnection equipment is required.
- 5.0 After installation, the Customer returns the Certificate of Completion to the Company. Prior to parallel operation, the Company may inspect the Small Generating Facility for compliance with standards which may include a witness test, and may schedule appropriate metering replacement, if necessary.
- 6.0 The Company notifies the Customer in writing that interconnection of the Small Generating Facility is authorized. If the witness test is not satisfactory, the Company has the right to disconnect the Small Generating Facility. The Customer has no right to operate in parallel until a witness test has been performed, or previously waived on the Application. The Company is obligated to complete this witness test within ten Business Days of the receipt of the Certificate of Completion. If the Company does not inspect within ten Business Days or by mutual

agreement of the Parties, the witness test is deemed waived.

- 7.0 Contact Information - The Customer must provide the contact information for the legal applicant (i.e., the Interconnection Customer). If another entity is responsible for interfacing with the Company, that contact information must be provided on the Application.
- 8.0 Ownership Information - Enter the legal names of the owner(s) of the Small Generating Facility. Include the percentage ownership (if any) by any utility or public utility holding company, or by any entity owned by either.
- 9.0 UL1741 Listed - This standard ("Inverters, Converters, and Controllers for Use in Independent Power Systems") addresses the electrical interconnection design of various forms of generating equipment. Many manufacturers submit their equipment to a Nationally Recognized Testing Laboratory (NRTL) that verifies compliance with UL1741. This "listing" is then marked on the equipment and supporting documentation.

Application for Interconnecting a Certified Inverter-Based Small Generating Facility No Larger than 10kW

This Application is considered complete when it provides all applicable and correct information required below. Per SGIP section 49.5, documentation of site control must be submitted with the Interconnection Request. Additional information to evaluate the Application may be required.

Processing Fee

A non-refundable processing fee of \$100 must accompany this Application.

Interconnection Customer

Name: _____
Contact Person: _____
Address: _____
City: _____ State: _____ Zip: _____
Telephone (Day): _____ (Evening): _____
Fax: _____ E-Mail Address: _____

Contact (if different from Interconnection Customer)

Name: _____
Address: _____
City: _____ State: _____ Zip: _____
Telephone (Day): _____ (Evening): _____
Fax: _____ E-Mail Address: _____

Owner of the facility (include % ownership by any electric utility): _____

Small Generating Facility Information

Location (if different from above): _____
Electric Service Company: _____
Account Number: _____
Inverter Manufacturer: _____ Model _____
Nameplate Rating: _____ (kW) _____ (kVA) _____ (AC Volts)
Single Phase _____ Three Phase _____
System Design Capacity: _____ (kW) _____ (kVA)
Prime Mover: Photovoltaic Reciprocating Engine Fuel Cell
Turbine Other _____
Energy Source: Solar Wind Hydro Diesel Natural Gas
Fuel Oil Other (describe) _____
Is the equipment UL1741 Listed? Yes__ No __
If Yes, attach manufacturer's cut-sheet showing UL1741 listing

Estimated Installation Date: _____ Estimated In-Service Date: _____

The 10 kW Inverter Process is available only for inverter-based Small Generating Facilities no

larger than 10 kW that meet the codes, standards, and certification requirements of Appendices 3 and 4 to Attachment O of the Tariff, or the Transmission Provider has reviewed the design or tested the proposed Small Generating Facility and is satisfied that it is safe to operate.

List components of the Small Generating Facility equipment package that are currently certified:

Equipment Type	Certifying Entity
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____

Interconnection Customer Signature

I hereby certify that, to the best of my knowledge, the information provided in this Application is true. I agree to abide by the Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10kW and return the Certificate of Completion when the Small Generating Facility has been installed.

Signed: _____

Title: _____ Date: _____

Contingent Approval to Interconnect the Small Generating Facility

(For Company use only)

Interconnection of the Small Generating Facility is approved contingent upon the Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10kW and return of the Certificate of Completion.

Company Signature: _____

Title: _____ Date: _____

Application ID number: _____

Company waives inspection/witness test? Yes___ No___

Small Generating Facility Certificate of Completion

Is the Small Generating Facility owner-installed? Yes _____ No _____

Interconnection Customer: _____

Contact Person: _____

Address: _____

Location of the Small Generating Facility (if different from above):

City: _____ State: _____ Zip Code: _____

Telephone (Day): _____ (Evening): _____

Fax: _____ E-Mail Address: _____

Electrician:

Name: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Telephone (Day): _____ (Evening): _____

Fax: _____ E-Mail Address: _____

License number: _____

Date Approval to Install Facility granted by the Company: _____

Application ID number: _____

Inspection:

The Small Generating Facility has been installed and inspected in compliance with the local building/electrical code of _____

Signed (Local electrical wiring inspector, or attach signed electrical inspection):

Print Name: _____

Date: _____

As a condition of interconnection, you are required to send/fax a copy of this form along with a copy of the signed electrical permit to (insert Company information below):

Name: _____

Company: _____

Address: _____

City, State ZIP: _____

Fax: _____

Approval to Energize the Small Generating Facility (For Company use only)

Energizing the Small Generating Facility is approved contingent upon the Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10kW

Company Signature: _____

Title: _____ Date: _____

**Terms and Conditions for Interconnecting an Inverter-Based
Small Generating Facility No Larger than 10kW**

1.0 Construction of the Facility

The Interconnection Customer (the "Customer") may proceed to construct (including operational testing not to exceed two hours) the Small Generating Facility when the Transmission Provider (the "Company") approves the Interconnection Request (the "Application") and returns it to the Customer.

2.0 Interconnection and Operation

The Customer may operate Small Generating Facility and interconnect with the Company's electric system once all of the following have occurred:

2.1 Upon completing construction, the Customer will cause the Small Generating Facility to be inspected or otherwise certified by the appropriate local electrical wiring inspector with jurisdiction, and

2.2 The Customer returns the Certificate of Completion to the Company, and

2.3 The Company has either:

2.3.1 Completed its inspection of the Small Generating Facility to ensure that all equipment has been appropriately installed and that all electrical connections have been made in accordance with applicable codes. All inspections must be conducted by the Company, at its own expense, within ten Business Days after receipt of the Certificate of Completion and shall take place at a time agreeable to the Parties. The Company shall provide a written statement that the Small Generating Facility has passed inspection or shall notify the Customer of what steps it must take to pass inspection as soon as practicable after the inspection takes place; or

2.3.2 If the Company does not schedule an inspection of the Small Generating Facility within ten business days after receiving the Certificate of Completion, the witness test is deemed waived (unless the Parties agree otherwise); or

2.3.3 The Company waives the right to inspect the Small Generating Facility.

2.4 The Company has the right to disconnect the Small Generating Facility in the event of improper installation or failure to return the Certificate of Completion.

2.5 Revenue quality metering equipment must be installed and tested in accordance with applicable ANSI standards.

3.0 **Safe Operations and Maintenance**

The Customer shall be fully responsible to operate, maintain, and repair the Small Generating Facility as required to ensure that it complies at all times with the interconnection standards to which it has been certified.

4.0 **Access**

The Company shall have access to the disconnect switch (if the disconnect switch is required) and metering equipment of the Small Generating Facility at all times. The Company shall provide reasonable notice to the Customer when possible prior to using its right of access.

5.0 **Disconnection**

The Company may temporarily disconnect the Small Generating Facility upon the following conditions:

5.1 For scheduled outages upon reasonable notice.

5.2 For unscheduled outages or emergency conditions.

5.3 If the Small Generating Facility does not operate in the manner consistent with these Terms and Conditions.

5.4 The Company shall inform the Customer in advance of any scheduled disconnection, or as is reasonable after an unscheduled disconnection.

6.0 **Indemnification**

The Parties shall at all times indemnify, defend, and save the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third

parties, arising out of or resulting from the other Party's action or inactions of its obligations under this agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.

7. 0 Insurance

The Parties agree to follow all applicable insurance requirements imposed by the state in which the Point of Interconnection is located. All insurance policies must be maintained with insurers authorized to do business in that state.

8.0 Limitation of Liability

Each party's liability to the other party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either party be liable to the other party for any indirect, incidental, special, consequential, or punitive damages of any kind whatsoever, except as allowed under paragraph 6.0.

9.0 Termination

The agreement to operate in parallel may be terminated under the following conditions:

9.1 By the Customer

By providing written notice to the Company.

9.2 By the Company

If the Small Generating Facility fails to operate for any consecutive 12 month period or the Customer fails to remedy a violation of these Terms and Conditions.

9.3 Permanent Disconnection

In the event this Agreement is terminated, the Company shall have the right to disconnect its facilities or direct the Customer to disconnect its Small Generating Facility.

9.4 Survival Rights

This Agreement shall continue in effect after termination to the extent necessary to allow or require either Party to fulfill rights or

obligations that arose under the Agreement.

10.0 **Assignment/Transfer of Ownership of the Facility**

This Agreement shall survive the transfer of ownership of the Small Generating Facility to a new owner when the new owner agrees in writing to comply with the terms of this Agreement and so notifies the Company.

APPENDIX 6 TO SGIP

[Reserved]

APPENDIX 7 TO SGIP

[Reserved]

APPENDIX 8 TO SGIP

Facilities Study Agreement

THIS AGREEMENT is made and entered into this _____ day of _____ 20____ by and between _____, a _____ organized and existing under the laws of the State of _____, ("Interconnection Customer,") and _____, a _____ existing under the laws of the State of _____, ("Transmission Provider"). Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

RECITALS

WHEREAS, the Interconnection Customer is proposing to develop a Small Generating Facility or generating capacity addition to an existing Small Generating Facility consistent with the Interconnection Request completed by the Interconnection Customer on _____; and

WHEREAS, the Interconnection Customer desires to interconnect the Small Generating Facility with the Transmission Provider's Transmission System;

WHEREAS, the Transmission Provider has completed a Cluster Study and provided the results of said study to the Interconnection Customer; and

WHEREAS, the Interconnection Customer has requested the Transmission Provider to perform a facilities study to specify and estimate the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the system impact study in accordance with Good Utility Practice to physically and electrically connect the Small Generating Facility with the Transmission Provider's Transmission System.

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated or the meanings specified in the standard Small Generator Interconnection Procedures.

- 2.0 The Interconnection Customer elects and the Transmission Provider shall cause a facilities study consistent with the standard Small Generator Interconnection Procedures to be performed in accordance with the Open Access Transmission Tariff.
- 3.0 The scope of the facilities study shall be subject to data provided in Attachment A to this Agreement and Section 51 of Transmission Provider's Tariff.
- 4.0 The facilities study shall specify and estimate the cost of the equipment, engineering, procurement and construction work (including overheads) needed to implement the conclusions of the system impact study(s). The facilities study shall also identify (1) the electrical switching configuration of the equipment, including, without limitation, transformer, switchgear, meters, and other station equipment, (2) the nature and estimated cost of the Transmission Provider's Interconnection Facilities and Upgrades necessary to accomplish the interconnection, and (3) an estimate of the time required to complete the construction and installation of such facilities.
- 5.0 The Transmission Provider may propose to group facilities required for more than one Interconnection Customer in order to minimize facilities costs through economies of scale, but any Interconnection Customer may require the installation of facilities required for its own Small Generating Facility if it is willing to pay the costs of those facilities.
- 6.0 A deposit of the good faith estimated facilities study costs may be required from the Interconnection Customer.
- 7.0 In cases where Upgrades are required, the facilities study must be completed within 45 Business Days of the receipt of this Agreement. In cases where no Upgrades are necessary, and the required facilities are limited to Interconnection Facilities, the facilities study must be completed within 30 Business Days.
- 8.0 Once the facilities study is completed, a draft facilities study report shall be prepared and transmitted to the Interconnection Customer. Barring unusual circumstances, the facilities study must be completed and the draft facilities study report transmitted within 30 Business Days

of the Interconnection Customer's agreement to conduct a facilities study.

- 9.0 Interconnection Customer may, within 30 Calendar Days after receipt of the draft report, provide written comments to Transmission Provider, which Transmission Provider shall include in the final report. Transmission Provider shall issue the final Interconnection Facilities Study report within 15 Business Days of receiving Interconnection Customer's comments or promptly upon receiving Interconnection Customer's statement that it will not provide comments. Transmission Provider may reasonably extend such fifteen-day period upon notice to Interconnection Customer if Interconnection Customer's comments require Transmission Provider to perform additional analyses or make other significant modifications prior to the issuance of the final Interconnection Facilities Report. Upon request, Transmission Provider shall provide Interconnection Customer supporting documentation, workpapers, and databases or data developed in the preparation of the Interconnection Facilities Study, subject to confidentiality arrangements consistent with Section 4.5 of the standard Small Generator Interconnection Procedures.
- 10.0 Within ten Business Days of providing a draft Interconnection Facilities Study report to Interconnection Customer, Transmission Provider and Interconnection Customer shall meet to discuss the results of the Interconnection Facilities Study.
- 11.0 Any study fees shall be based on the Transmission Provider's actual costs and will be invoiced to the Interconnection Customer after the study is completed and delivered and will include a summary of professional time.
- 12.0 The Interconnection Customer must pay any study costs that exceed the deposit without interest within 30 calendar days on receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the Transmission Provider shall refund such excess within 30 calendar days of the invoice without interest.
- 13.0 Governing Law, Regulatory Authority, and Rules

The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by

the laws of the state of _____ (where the Point of Interconnection is located), without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

14.0 Amendment

The Parties may amend this Agreement by a written instrument duly executed by both Parties.

15.0 No Third-Party Beneficiaries

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

16.0 Waiver

16.1 The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

16.2 Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Transmission Provider. Any waiver of this Agreement shall, if requested, be provided in writing.

17.0 Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

18.0 No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

19.0 Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

20.0 Subcontractors

Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.

20.1 The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the Transmission Provider be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

20.2 The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

21.0 Reservation of Rights

The Transmission Provider shall have the right to make a unilateral filing with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and the Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Agreement under any applicable provision of the Federal Power Act and FERC's rules and regulations; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations, except to the extent that the Parties otherwise agree as provided herein.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**[Insert name of
Transmission Provider]**

**[Insert name of
Interconnection Customer]**

Signed _____

Signed _____

Name (Printed): _____

Name (Printed): _____

Title: _____

Title: _____

**Attachment A to
Facilities Study Agreement**

**Data to Be Provided by the Interconnection Customer
with the Facilities Study Agreement**

Provide location plan and simplified one-line diagram of the plant and station facilities. For staged projects, please indicate future generation, transmission circuits, etc.

On the one-line diagram, indicate the generation capacity attached at each metering location. (Maximum load on CT/PT)

On the one-line diagram, indicate the location of auxiliary power. (Minimum load on CT/PT) Amps

One set of metering is required for each generation connection to the new ring bus or existing Transmission Provider station. Number of generation connections: _____

Will an alternate source of auxiliary power be available during CT/PT maintenance?

Yes _____ No _____

Will a transfer bus on the generation side of the metering require that each meter set be designed for the total plant generation? Yes _____ No _____

(Please indicate on the one-line diagram).

What type of control system or PLC will be located at the Small Generating Facility?

What protocol does the control system or PLC use?

Please provide a 7.5-minute quadrangle map of the site. Indicate the plant, station, transmission line, and property lines.

Physical dimensions of the proposed interconnection station:

Bus length from generation to interconnection station:

Line length from interconnection station to Transmission Provider's Transmission System.

Tower number observed in the field. (Painted on tower leg)*:

Number of third party easements required for transmission lines*:

* To be completed in coordination with Transmission Provider.

Is the Small Generating Facility located in Transmission Provider's service area?

Yes _____ No _____ If No, please provide name of local provider:

Please provide the following proposed schedule dates:

Begin Construction Date: _____

Generator step-up transformers receive back feed power Date: _____

Generation Testing Date: _____

Commercial Operation Date: _____

APPENDIX 9 TO SGIP

SMALL GENERATOR INTERCONNECTION AGREEMENT (SGIA)

(For Generating Facilities No Larger Than 20 MW)

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This Interconnection Agreement ("Agreement") is made and entered into this ____ day of _____, 20_, by _____ ("Transmission Provider"), and _____ ("Interconnection Customer") each hereinafter sometimes referred to individually as "Party" or both referred to collectively as the "Parties."

Transmission Provider Information

Transmission Provider: _____
Attention: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone: _____ Fax: _____

Interconnection Customer Information

Interconnection Customer: _____
Attention: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone: _____ Fax: _____

Interconnection Customer Application No: _____

In consideration of the mutual covenants set forth herein, the Parties agree as follows:

Article 1. Scope and Limitations of Agreement

- 1.1 This Agreement shall be used for all Interconnection Requests submitted under the Small Generator Interconnection Procedures (SGIP) except for those submitted under the 10 kW Inverter Process contained in SGIP Appendix 5 to Attachment 0 of the Tariff.
- 1.2 This Agreement governs the terms and conditions under which the Interconnection Customer's Small Generating Facility will interconnect with, and operate in parallel with, the Transmission Provider's Transmission System.
- 1.3 This Agreement does not constitute an agreement to purchase or deliver the Interconnection Customer's power. The purchase or delivery of power and other services that the Interconnection Customer may require will be covered under separate agreements, if any. The Interconnection Customer

will be responsible for separately making all necessary arrangements (including scheduling) for delivery of electricity with the applicable Transmission Provider.

1.4 Nothing in this Agreement is intended to affect any other agreement between the Transmission Provider and the Interconnection Customer.

1.5 Responsibilities of the Parties

1.5.1 The Parties shall perform all obligations of this Agreement in accordance with all Applicable Laws and Regulations, Operating Requirements, and Good Utility Practice.

1.5.2 The Interconnection Customer shall construct, interconnect, operate and maintain its Small Generating Facility and construct, operate, and maintain its Interconnection Facilities in accordance with the applicable manufacturer's recommended maintenance schedule, and in accordance with this Agreement, and with Good Utility Practice.

1.5.3 The Transmission Provider shall construct, operate, and maintain its Transmission System and Interconnection Facilities in accordance with this Agreement, and with Good Utility Practice.

1.5.4 The Interconnection Customer agrees to construct its facilities or systems in accordance with applicable specifications that meet or exceed those provided by the National Electrical Safety Code, the American National Standards Institute, IEEE, Underwriter's Laboratory, and Operating Requirements in effect at the time of construction and other applicable national and state codes and standards. The Interconnection Customer agrees to design, install, maintain, and operate its Small Generating Facility so as to reasonably minimize the likelihood of a disturbance adversely affecting or impairing the system or equipment of the Transmission Provider and any Affected Systems.

1.5.5 Each Party shall operate, maintain, repair, and inspect, and shall be fully responsible for the

facilities that it now or subsequently may own unless otherwise specified in the Attachments to this Agreement. Each Party shall be responsible for the safe installation, maintenance, repair and condition of their respective lines and appurtenances on their respective sides of the point of change of ownership. The Transmission Provider and the Interconnection Customer, as appropriate, shall provide Interconnection Facilities that adequately protect the Transmission Provider's Transmission System, personnel, and other persons from damage and injury. The allocation of responsibility for the design, installation, operation, maintenance and ownership of Interconnection Facilities shall be delineated in the Attachments to this Agreement.

- 1.5.6 The Transmission Provider shall coordinate with all Affected Systems to support the interconnection.

- 1.5.7 The Interconnection Customer shall ensure "frequency ride through" capability and "voltage ride through" capability of its Small Generating Facility. The Interconnection Customer shall enable these capabilities such that its Small Generating Facility shall not disconnect automatically or instantaneously from the system or equipment of the Transmission Provider and any Affected Systems for a defined under-frequency or over-frequency condition, or an under-voltage or over-voltage condition as tested pursuant to section 2.1 of this agreement. The defined conditions shall be in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other generating facilities in the Balancing Authority Area on a comparable basis. The Small Generating Facility's protective equipment settings shall comply with the Transmission Provider's automatic load-shed program. The Transmission Provider shall review the protective equipment settings to confirm compliance with the automatic load-shed program. The term "ride through" as used herein shall mean the ability of a Small Generating Facility to stay connected to and synchronized with the system or equipment of

the Transmission Provider and any Affected Systems during system disturbances within a range of conditions, in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other generating facilities in the Balancing Authority on a comparable basis. The term "frequency ride through" as used herein shall mean the ability of a Small Generating Facility to stay connected to and synchronized with the system or equipment of the Transmission Provider and any Affected Systems during system disturbances within a range of under-frequency and over-frequency conditions, in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other generating facilities in the Balancing Authority Area on a comparable basis. The term "voltage ride through" as used herein shall mean the ability of a Small Generating Facility to stay connected to and synchronized with the system or equipment of the Transmission Provider and any Affected Systems during system disturbances within a range of under-voltage and over-voltage conditions, in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other generating facilities in the Balancing Authority Area on a comparable basis.

1.6 Parallel Operation Obligations

Once the Small Generating Facility has been authorized to commence parallel operation, the Interconnection Customer shall abide by all rules and procedures pertaining to the parallel operation of the Small Generating Facility in the applicable control area, including, but not limited to; 1) the rules and procedures concerning the operation of generation set forth in the Tariff or by the applicable system operator(s) for the Transmission Provider's Transmission System and; 2) the Operating Requirements set forth in Attachment 5 of this Agreement.

1.7 Metering

The Interconnection Customer shall be responsible for the Transmission Provider's reasonable and necessary cost for the purchase, installation, operation, maintenance, testing, repair,

and replacement of metering and data acquisition equipment specified in Attachments 2 and 3 of this Agreement. The Interconnection Customer's metering (and data acquisition, as required) equipment shall conform to applicable industry rules and Operating Requirements.

1.8 Reactive Power and Primary Frequency Response

1.8.1 Power Factor Design Criteria

1.8.1.1 Synchronous Generation

The Interconnection Customer shall design its Small Generating Facility to maintain a composite power delivery at continuous rated power output at the Point of Interconnection at a power factor within the range of 0.95 leading to 0.95 lagging, unless the Transmission Provider has established different requirements that apply to all similarly situated synchronous generators in the control area on a comparable basis.

1.8.1.2 Non-Synchronous Generation

The Interconnection Customer shall design its Small Generating Facility to maintain a composite power delivery at continuous rated power output at the high-side of the generator substation at a power factor within the range of 0.95 leading to 0.95 lagging, unless the Transmission Provider has established a different power factor range that applies to all similarly situated non-synchronous generators in the control area on a comparable basis. This power factor range standard shall be dynamic and can be met using, for example, power electronics designed to supply this level of reactive capability (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors, or a combination

of the two. This requirement shall only apply to newly interconnecting non-synchronous generators that have not yet executed a Facilities Study Agreement as of the effective date of the Final Rule establishing this requirement (Order No. 827).

1.8.2 The Transmission Provider is required to pay the Interconnection Customer for reactive power that the Interconnection Customer provides or absorbs from the Small Generating Facility when the Transmission Provider requests the Interconnection Customer to operate its Small Generating Facility outside the range specified in article 1.8.1. In addition, if the Transmission Provider pays its own or affiliated generators for reactive power service within the specified range, it must also pay the Interconnection Customer.

1.8.3 Payments shall be in accordance with the Interconnection Customer's applicable rate schedule then in effect unless the provision of such service(s) is subject to a regional transmission organization or independent system operator FERC-approved rate schedule. To the extent that no rate schedule is in effect at the time the Interconnection Customer is required to provide or absorb reactive power under this Agreement, the Parties agree to expeditiously file such rate schedule and agree to support any request for waiver of the Commission's prior notice requirement in order to compensate the Interconnection Customer from the time service commenced.

1.8.4 Primary Frequency Response

Interconnection Customer shall ensure the primary frequency response capability of its Small Generating Facility by installing, maintaining, and operating a functioning governor or equivalent controls. The term "functioning governor or equivalent controls" as used herein shall mean the required hardware and/or software that provides frequency responsive real power

control with the ability to sense changes in system frequency and autonomously adjust the Small Generating Facility's real power output in accordance with the droop and deadband parameters and in the direction needed to correct frequency deviations. Interconnection Customer is required to install a governor or equivalent controls with the capability of operating: (1) with a maximum 5 percent droop and ± 0.036 Hz deadband; or (2) in accordance with the relevant droop, deadband, and timely and sustained response settings from an approved NERC Reliability Standard providing for equivalent or more stringent parameters. The droop characteristic shall be: (1) based on the nameplate capacity of the Small Generating Facility, and shall be linear in the range of frequencies between 59 to 61 Hz that are outside of the deadband parameter; or (2) based on an approved NERC Reliability Standard providing for an equivalent or more stringent parameter. The deadband parameter shall be: the range of frequencies above and below nominal (60 Hz) in which the governor or equivalent controls is not expected to adjust the Small Generating Facility's real power output in response to frequency deviations. The deadband shall be implemented: (1) without a step to the droop curve, that is, once the frequency deviation exceeds the deadband parameter, the expected change in the Small Generating Facility's real power output in response to frequency deviations shall start from zero and then increase (for under-frequency deviations) or decrease (for over-frequency deviations) linearly in proportion to the magnitude of the frequency deviation; or (2) in accordance with an approved NERC Reliability Standard providing for an equivalent or more stringent parameter. Interconnection Customer shall notify Transmission Provider that the primary frequency response capability of the Small Generating Facility has been tested and confirmed during commissioning. Once Interconnection Customer has synchronized the Small Generating Facility with the Transmission System, Interconnection Customer shall operate the Small Generating Facility consistent with the provisions specified in Sections 1.8.4.1 and

1.8.4.2 of this Agreement. The primary frequency response requirements contained herein shall apply to both synchronous and non-synchronous Small Generating Facilities.

1.8.4.1 Governor or Equivalent Controls.

Whenever the Small Generating Facility is operated in parallel with the Transmission System, Interconnection Customer shall operate the Small Generating Facility with its governor or equivalent controls in service and responsive to frequency.

Interconnection Customer shall: (1) in coordination with Transmission Provider and/or the relevant balancing authority, set the deadband parameter to: (1) a maximum of ± 0.036 Hz and set the droop parameter to a maximum of 5 percent; or (2) implement the relevant droop and deadband settings from an approved NERC Reliability Standard that provides for equivalent or more stringent parameters. Interconnection Customer shall be required to provide the status and settings of the governor or equivalent controls to Transmission Provider and/or the relevant balancing authority upon request. If

Interconnection Customer needs to operate the Small Generating Facility with its governor or equivalent controls not in service,

Interconnection Customer shall immediately notify Transmission Provider and the relevant balancing authority, and provide both with the following information: (1) the operating status of the governor or equivalent controls (i.e., whether it is currently out of service or when it will be taken out of service); (2) the reasons for removing the governor or equivalent controls from service; and (3) a reasonable estimate of when the governor or equivalent controls will be

returned to service. Interconnection Customer shall make Reasonable Efforts to return its governor or equivalent controls into service as soon as practicable. Interconnection Customer shall make Reasonable Efforts to keep outages of the Small Generating Facility's governor or equivalent controls to a minimum whenever the Small Generating Facility is operated in parallel with the Transmission System.

1.8.4.2 Timely and Sustained Response.

Interconnection Customer shall ensure that the Small Generating Facility's real power response to sustained frequency deviations outside of the deadband setting is automatically provided and shall begin immediately after frequency deviates outside of the deadband, and to the extent the Small Generating Facility has operating capability in the direction needed to correct the frequency deviation. Interconnection Customer shall not block or otherwise inhibit the ability of the governor or equivalent controls to respond and shall ensure that the response is not inhibited, except under certain operational constraints including, but not limited to, ambient temperature limitations, physical energy limitations, outages of mechanical equipment, or regulatory requirements. The Small Generating Facility shall sustain the real power response at least until system frequency returns to a value within the deadband setting of the governor or equivalent controls. A Commission-approved Reliability Standard with equivalent or more stringent requirements shall supersede the above requirements.

1.8.4.3 Exemptions.

Small Generating Facilities that are regulated by the United States Nuclear Regulatory Commission shall be exempt from Sections 1.8.4, 1.8.4.1, and 1.8.4.2 of this Agreement. Small Generating Facilities that are behind the meter generation that is sized-to-load (i.e., the thermal load and the generation are near-balanced in real-time operation and the generation is primarily controlled to maintain the unique thermal, chemical, or mechanical output necessary for the operating requirements of its host facility) shall be required to install primary frequency response capability in accordance with the droop and deadband capability requirements specified in Section 1.8.4, but shall be otherwise exempt from the operating requirements in Sections 1.8.4, 1.8.4.1, 1.8.4.2, and 1.8.4.4 of this Agreement.

1.8.4.4 Electric Storage Resources.

Interconnection Customer interconnecting an electric storage resource shall establish an operating range in Attachment 5 of its SGIA that specifies a minimum state of charge and a maximum state of charge between which the electric storage resource will be required to provide primary frequency response consistent with the conditions set forth in Sections 1.8.4, 1.8.4.1, 1.8.4.2 and 1.8.4.3 of this Agreement. Attachment 5 shall specify whether the operating range is static or dynamic, and shall consider: (1) the expected magnitude of frequency deviations in the interconnection; (2) the expected duration that system frequency will remain outside of the deadband

parameter in the interconnection; (3) the expected incidence of frequency deviations outside of the deadband parameter in the interconnection; (4) the physical capabilities of the electric storage resource; (5) operational limitations of the electric storage resource due to manufacturer specifications; and (6) any other relevant factors agreed to by Transmission Provider and Interconnection Customer, and in consultation with the relevant transmission owner or balancing authority as appropriate. If the operating range is dynamic, then Attachment 5 must establish how frequently the operating range will be reevaluated and the factors that may be considered during its reevaluation.

Interconnection Customer's electric storage resource is required to provide timely and sustained primary frequency response consistent with Section 1.8.4.2 of this Agreement when it is online and dispatched to inject electricity to the Transmission System and/or receive electricity from the Transmission System. This excludes circumstances when the electric storage resource is not dispatched to inject electricity to the Transmission System and/or dispatched to receive electricity from the Transmission System. If Interconnection Customer's electric storage resource is charging at the time of a frequency deviation outside of its deadband parameter, it is to increase (for over-frequency deviations) or decrease (for under-frequency deviations) the rate at which it is charging in accordance with its droop parameter. Interconnection Customer's electric storage resource is not required to change from charging to discharging, or vice versa, unless the

response necessitated by the droop and deadband settings requires it to do so and it is technically capable of making such a transition.

- 1.9 Capitalized Terms. Capitalized terms used herein shall have the meanings specified in the Glossary of Terms in Attachment 1 or the body of this Agreement.

Article 2. Inspection, Testing, Authorization, and Right of Access

2.1 Equipment Testing and Inspection

2.1.1 The Interconnection Customer shall test and inspect its Small Generating Facility and Interconnection Facilities prior to interconnection. The Interconnection Customer shall notify the Transmission Provider of such activities no fewer than five Business Days (or as may be agreed to by the Parties) prior to such testing and inspection. Testing and inspection shall occur on a Business Day. The Transmission Provider may, at its own expense, send qualified personnel to the Small Generating Facility site to inspect the interconnection and observe the testing. The Interconnection Customer shall provide the Transmission Provider a written test report when such testing and inspection is completed.

2.1.2 The Transmission Provider shall provide the Interconnection Customer written acknowledgment that it has received the Interconnection Customer's written test report. Such written acknowledgment shall not be deemed to be or construed as any representation, assurance, guarantee, or warranty by the Transmission Provider of the safety, durability, suitability, or reliability of the Small Generating Facility or any associated control, protective, and safety devices owned or controlled by the Interconnection Customer or the quality of power produced by the Small Generating Facility.

2.2 Authorization Required Prior to Parallel Operation

2.2.1 The Transmission Provider shall use Reasonable Efforts to list applicable parallel operation requirements in Attachment 5 of this Agreement. Additionally, the Transmission Provider shall notify the Interconnection Customer of any changes to these requirements as soon as they are known. The Transmission Provider shall make Reasonable Efforts to cooperate with the Interconnection Customer in meeting requirements necessary for the Interconnection Customer to commence parallel operations by the in-service date.

2.2.2 The Interconnection Customer shall not operate its Small Generating Facility in parallel with the Transmission Provider's Transmission System without prior written authorization of the Transmission Provider. The Transmission Provider will provide such authorization once the Transmission Provider receives notification that the Interconnection Customer has complied with all applicable parallel operation requirements. Such authorization shall not be unreasonably withheld, conditioned, or delayed.

2.3 Right of Access

2.3.1 Upon reasonable notice, the Transmission Provider may send a qualified person to the premises of the Interconnection Customer at or immediately before the time the Small Generating Facility first produces energy to inspect the interconnection, and observe the commissioning of the Small Generating Facility (including any required testing), startup, and operation for a period of up to three Business Days after initial start-up of the unit. In addition, the Interconnection Customer shall notify the Transmission Provider at least five Business Days prior to conducting any on-site verification testing of the Small Generating Facility.

2.3.2 Following the initial inspection process described above, at reasonable hours, and upon reasonable notice, or at any time without notice in the event of an emergency or hazardous condition, the Transmission Provider shall have

access to the Interconnection Customer's premises for any reasonable purpose in connection with the performance of the obligations imposed on it by this Agreement or if necessary to meet its legal obligation to provide service to its customers.

- 2.3.3 Each Party shall be responsible for its own costs associated with following this article.

Article 3. Effective Date, Term, Termination, and Disconnection

3.1 Effective Date

This Agreement shall become effective upon execution by the Parties subject to acceptance by FERC (if applicable), or if filed unexecuted, upon the date specified by the FERC. The Transmission Provider shall promptly file this Agreement with the FERC upon execution, if required.

3.2 Term of Agreement

This Agreement shall become effective on the Effective Date and shall remain in effect for a period of ten years from the Effective Date or such other longer period as the Interconnection Customer may request and shall be automatically renewed for each successive one-year period thereafter, unless terminated earlier in accordance with article 3.3 of this Agreement.

3.3 Termination

No termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination, including the filing with FERC of a notice of termination of this Agreement (if required), which notice has been accepted for filing by FERC.

- 3.3.1 The Interconnection Customer may terminate this Agreement at any time by giving the Transmission Provider 20 Business Days written notice.
- 3.3.2 Either Party may terminate this Agreement after Default pursuant to article 7.6.
- 3.3.3 Upon termination of this Agreement, the Small Generating Facility will be disconnected from the Transmission Provider's Transmission System. All

costs required to effectuate such disconnection shall be borne by the terminating Party, unless such termination resulted from the non-terminating Party's Default of this SGIA or such non-terminating Party otherwise is responsible for these costs under this SGIA.

3.3.4 The termination of this Agreement shall not relieve either Party of its liabilities and obligations, owed or continuing at the time of the termination.

3.3.5 The provisions of this article shall survive termination or expiration of this Agreement.

3.4 Temporary Disconnection

Temporary disconnection shall continue only for so long as reasonably necessary under Good Utility Practice.

3.4.1 Emergency Conditions -- "Emergency Condition" shall mean a condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (2) that, in the case of the Transmission Provider, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to the Transmission System, the Transmission Provider's Interconnection Facilities or the Transmission Systems of others to which the Transmission System is directly connected; or (3) that, in the case of the Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Small Generating Facility or the Interconnection Customer's Interconnection Facilities. Under Emergency Conditions, the Transmission Provider may immediately suspend interconnection service and temporarily disconnect the Small Generating Facility. The Transmission Provider shall notify the Interconnection Customer promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the Interconnection Customer's operation of the Small

Generating Facility. The Interconnection Customer shall notify the Transmission Provider promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the Transmission Provider's Transmission System or any Affected Systems. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of both Parties' facilities and operations, its anticipated duration, and the necessary corrective action.

3.4.2 Routine Maintenance, Construction, and Repair

The Transmission Provider may interrupt interconnection service or curtail the output of the Small Generating Facility and temporarily disconnect the Small Generating Facility from the Transmission Provider's Transmission System when necessary for routine maintenance, construction, and repairs on the Transmission Provider's Transmission System. The Transmission Provider shall provide the Interconnection Customer with five Business Days notice prior to such interruption. The Transmission Provider shall use Reasonable Efforts to coordinate such reduction or temporary disconnection with the Interconnection Customer.

3.4.3 Forced Outages

During any forced outage, the Transmission Provider may suspend interconnection service to effect immediate repairs on the Transmission Provider's Transmission System. The Transmission Provider shall use Reasonable Efforts to provide the Interconnection Customer with prior notice. If prior notice is not given, the Transmission Provider shall, upon request, provide the Interconnection Customer written documentation after the fact explaining the circumstances of the disconnection.

3.4.4 Adverse Operating Effects

The Transmission Provider shall notify the

Interconnection Customer as soon as practicable if, based on Good Utility Practice, operation of the Small Generating Facility may cause disruption or deterioration of service to other customers served from the same electric system, or if operating the Small Generating Facility could cause damage to the Transmission Provider's Transmission System or Affected Systems. Supporting documentation used to reach the decision to disconnect shall be provided to the Interconnection Customer upon request. If, after notice, the Interconnection Customer fails to remedy the adverse operating effect within a reasonable time, the Transmission Provider may disconnect the Small Generating Facility. The Transmission Provider shall provide the Interconnection Customer with five Business Day notice of such disconnection, unless the provisions of article 3.4.1 apply.

3.4.5 Modification of the Small Generating Facility

The Interconnection Customer must receive written authorization from the Transmission Provider before making any change to the Small Generating Facility that may have a material impact on the safety or reliability of the Transmission System. Such authorization shall not be unreasonably withheld. Modifications shall be done in accordance with Good Utility Practice. If the Interconnection Customer makes such modification without the Transmission Provider's prior written authorization, the latter shall have the right to temporarily disconnect the Small Generating Facility.

3.4.6 Reconnection

The Parties shall cooperate with each other to restore the Small Generating Facility, Interconnection Facilities, and the Transmission Provider's Transmission System to their normal operating state as soon as reasonably practicable following a temporary disconnection.

Article 4. Cost Responsibility for Interconnection Facilities and Distribution Upgrades

4.1 Interconnection Facilities

4.1.1 The Interconnection Customer shall pay for the cost of the Interconnection Facilities itemized in Attachment 2 of this Agreement. The Transmission Provider shall provide a best estimate cost, including overheads, for the purchase and construction of its Interconnection Facilities and provide a detailed itemization of such costs. Costs associated with Interconnection Facilities may be shared with other entities that may benefit from such facilities by agreement of the Interconnection Customer, such other entities, and the Transmission Provider.

4.1.2 The Interconnection Customer shall be responsible for its share of all reasonable expenses, including overheads, associated with (1) owning, operating, maintaining, repairing, and replacing its own Interconnection Facilities, and (2) operating, maintaining, repairing, and replacing the Transmission Provider's Interconnection Facilities.

4.2 Distribution Upgrades

The Transmission Provider shall design, procure, construct, install, and own the Distribution Upgrades described in Attachment 6 of this Agreement. If the Transmission Provider and the Interconnection Customer agree, the Interconnection Customer may construct Distribution Upgrades that are located on land owned by the Interconnection Customer. The actual cost of the Distribution Upgrades, including overheads, shall be directly assigned to the Interconnection Customer.

Article 5. Cost Responsibility for Network Upgrades

5.1 Applicability

No portion of this article 5 shall apply unless the interconnection of the Small Generating Facility requires Network Upgrades.

5.2 Network Upgrades

The Transmission Provider or the Transmission Owner shall design, procure, construct, install, and own the Network Upgrades described in Attachment 6 of this Agreement. If the Transmission Provider and the Interconnection Customer agree, the Interconnection Customer may construct Network Upgrades that are located on land owned by the Interconnection Customer. Unless the Transmission Provider elects to pay for Network Upgrades, the actual cost of the Network Upgrades, including overheads, shall be borne initially by the Interconnection Customer.

5.2.1 Repayment of Amounts Advanced for Network Upgrades

The Interconnection Customer shall be entitled to a cash repayment, equal to the total amount paid to the Transmission Provider and Affected System operator, if any, for Network Upgrades, including any tax gross-up or other tax-related payments associated with the Network Upgrades, and not otherwise refunded to the Interconnection Customer, to be paid to the Interconnection Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, as payments are made under the Transmission Provider's Tariff and Affected System's Tariff for transmission services with respect to the Small Generating Facility. Any repayment shall include interest calculated in accordance with the methodology set forth in FERC's regulations at 18 C.F.R. § 35.19 a(a)(2)(iii) from the date of any payment for Network Upgrades through the date on which the Interconnection Customer receives a repayment of such payment pursuant to this subparagraph. The Interconnection Customer may assign such repayment rights to any person.

5.2.1.1 Notwithstanding the foregoing, the Interconnection Customer, the Transmission Provider, and any applicable Affected System operators may adopt any alternative payment schedule that is mutually agreeable so

long as the Transmission Provider and said Affected System operators take one of the following actions no later than five years from the Commercial Operation Date: (1) return to the Interconnection Customer any amounts advanced for Network Upgrades not previously repaid, or (2) declare in writing that the Transmission Provider or any applicable Affected System operators will continue to provide payments to the Interconnection Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, or develop an alternative schedule that is mutually agreeable and provides for the return of all amounts advanced for Network Upgrades not previously repaid; however, full reimbursement shall not extend beyond twenty (20) years from the commercial operation date.

5.2.1.2 If the Small Generating Facility fails to achieve commercial operation, but it or another generating facility is later constructed and requires use of the Network Upgrades, the Transmission Provider and Affected System operator shall at that time reimburse the Interconnection Customer for the amounts advanced for the Network Upgrades. Before any such reimbursement can occur, the Interconnection Customer, or the entity that ultimately constructs the generating facility, if different, is responsible for identifying the entity to which reimbursement must be made.

5.3 Special Provisions for Affected Systems

Unless the Transmission Provider provides, under this Agreement, for the repayment of amounts advanced to any applicable Affected System operators for Network Upgrades, the Interconnection Customer and Affected System operator shall enter into an agreement that provides for such repayment. The agreement shall

specify the terms governing payments to be made by the Interconnection Customer to Affected System operator as well as the repayment by Affected System operator.

5.4 Rights Under Other Agreements

Notwithstanding any other provision of this Agreement, nothing herein shall be construed as relinquishing or foreclosing any rights, including but not limited to firm transmission rights, capacity rights, transmission congestion rights, or transmission credits, that the Interconnection Customer shall be entitled to, now or in the future, under any other agreement or tariff as a result of, or otherwise associated with, the transmission capacity, if any, created by the Network Upgrades, including the right to obtain cash reimbursements or transmission credits for transmission service that is not associated with the Small Generating Facility.

Article 6. Billing, Payment, Milestones, and Financial Security

6.1 Billing and Payment Procedures and Final Accounting

- 6.1.1 The Transmission Provider shall bill the Interconnection Customer for the design, engineering, construction, and procurement costs of Interconnection Facilities and Upgrades contemplated by this Agreement on a monthly basis, or as otherwise agreed by the Parties. The Interconnection Customer shall pay each bill within 30 calendar days of receipt, or as otherwise agreed to by the Parties.
- 6.1.2 Within three months of completing the construction and installation of the Transmission Provider's Interconnection Facilities and/or Upgrades described in the Attachments to this Agreement, the Transmission Provider shall provide the Interconnection Customer with a final accounting report of any difference between (1) the Interconnection Customer's cost responsibility for the actual cost of such facilities or Upgrades, and (2) the Interconnection Customer's previous aggregate payments to the Transmission Provider for such facilities or Upgrades. If the Interconnection Customer's cost responsibility exceeds its previous aggregate payments, the Transmission

Provider shall invoice the Interconnection Customer for the amount due and the Interconnection Customer shall make payment to the Transmission Provider within 30 calendar days. If the Interconnection Customer's previous aggregate payments exceed its cost responsibility under this Agreement, the Transmission Provider shall refund to the Interconnection Customer an amount equal to the difference within 30 calendar days of the final accounting report.

6.2 Milestones

The Parties shall agree on milestones for which each Party is responsible and list them in Attachment 4 of this Agreement. A Party's obligations under this provision may be extended by agreement. If a Party anticipates that it will be unable to meet a milestone for any reason other than a Force Majeure Event, it shall immediately notify the other Party of the reason(s) for not meeting the milestone and (1) propose the earliest reasonable alternate date by which it can attain this and future milestones, and (2) requesting appropriate amendments to Attachment 4. The Party affected by the failure to meet a milestone shall not unreasonably withhold agreement to such an amendment unless it will suffer significant uncompensated economic or operational harm from the delay, (2) attainment of the same milestone has previously been delayed, or (3) it has reason to believe that the delay in meeting the milestone is intentional or unwarranted notwithstanding the circumstances explained by the Party proposing the amendment.

6.3 Financial Security Arrangements

At least 20 Business Days prior to the commencement of the design, procurement, installation, or construction of a discrete portion of the Transmission Provider's Interconnection Facilities and Upgrades, the Interconnection Customer shall provide the Transmission Provider, at the Interconnection Customer's option, a guarantee, a surety bond, letter of credit or other form of security that is reasonably acceptable to the Transmission Provider and is consistent with the Uniform Commercial Code of the jurisdiction where the Point of Interconnection is located. Such security for payment shall be in an amount sufficient to cover the costs for constructing, designing, procuring, and installing the applicable portion of the Transmission Provider's Interconnection Facilities and Upgrades and shall be reduced on a dollar-for-dollar basis for

payments made to the Transmission Provider under this Agreement during its term. In addition:

- 6.3.1 The guarantee must be made by an entity that meets the creditworthiness requirements of the Transmission Provider, and contain terms and conditions that guarantee payment of any amount that may be due from the Interconnection Customer, up to an agreed-to maximum amount.
- 6.3.2 The letter of credit or surety bond must be issued by a financial institution or insurer reasonably acceptable to the Transmission Provider and must specify a reasonable expiration date.

Article 7. Assignment, Liability, Indemnity, Force Majeure, Consequential Damages, and Default

7.1 Assignment

This Agreement may be assigned by either Party upon 15 Business Days prior written notice and opportunity to object by the other Party; provided that:

- 7.1.1 Either Party may assign this Agreement without the consent of the other Party to any affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement, provided that the Interconnection Customer promptly notifies the Transmission Provider of any such assignment;
- 7.1.2 The Interconnection Customer shall have the right to assign this Agreement, without the consent of the Transmission Provider, for collateral security purposes to aid in providing financing for the Small Generating Facility, provided that the Interconnection Customer will promptly notify the Transmission Provider of any such assignment.
- 7.1.3 Any attempted assignment that violates this article is void and ineffective. Assignment shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in

part, by reason thereof. An assignee is responsible for meeting the same financial, credit, and insurance obligations as the Interconnection Customer. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

7.2 Limitation of Liability

Each Party's liability to the other Party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either Party be liable to the other Party for any indirect, special, consequential, or punitive damages, except as authorized by this Agreement.

7.3 Indemnity

7.3.1 This provision protects each Party from liability incurred to third parties as a result of carrying out the provisions of this Agreement. Liability under this provision is exempt from the general limitations on liability found in article 7.2.

7.3.2 The Parties shall at all times indemnify, defend, and hold the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or failure to meet its obligations under this Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.

7.3.3 If an indemnified person is entitled to indemnification under this article as a result of a claim by a third party, and the indemnifying Party fails, after notice and reasonable opportunity to proceed under this article, to assume the defense of such claim, such indemnified person may at the expense of the

indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

7.3.4 If an indemnifying party is obligated to indemnify and hold any indemnified person harmless under this article, the amount owing to the indemnified person shall be the amount of such indemnified person's actual loss, net of any insurance or other recovery.

7.3.5 Promptly after receipt by an indemnified person of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in this article may apply, the indemnified person shall notify the indemnifying party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying party.

7.4 Consequential Damages

Other than as expressly provided for in this Agreement, neither Party shall be liable under any provision of this Agreement for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to the other Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

7.5 Force Majeure

7.5.1 As used in this article, a Force Majeure Event shall mean "any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established

civilian authorities, or any other cause beyond a Party's control. A Force Majeure Event does not include an act of negligence or intentional wrongdoing."

7.5.2 If a Force Majeure Event prevents a Party from fulfilling any obligations under this Agreement, the Party affected by the Force Majeure Event (Affected Party) shall promptly notify the other Party, either in writing or via the telephone, of the existence of the Force Majeure Event. The notification must specify in reasonable detail the circumstances of the Force Majeure Event, its expected duration, and the steps that the Affected Party is taking to mitigate the effects of the event on its performance. The Affected Party shall keep the other Party informed on a continuing basis of developments relating to the Force Majeure Event until the event ends. The Affected Party will be entitled to suspend or modify its performance of obligations under this Agreement (other than the obligation to make payments) only to the extent that the effect of the Force Majeure Event cannot be mitigated by the use of Reasonable Efforts. The Affected Party will use Reasonable Efforts to resume its performance as soon as possible.

7.6 Default

7.6.1 No Default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of a Force Majeure Event as defined in this Agreement or the result of an act or omission of the other Party. Upon a Default, the non-defaulting Party shall give written notice of such Default to the defaulting Party. Except as provided in article 7.6.2, the defaulting Party shall have 60 calendar days from receipt of the Default notice within which to cure such Default; provided however, if such Default is not capable of cure within 60 calendar days, the defaulting Party shall commence such cure within 20 calendar days after notice and continuously and diligently complete such cure within six months from receipt of the Default notice; and, if cured within such time, the

Default specified in such notice shall cease to exist.

7.6.2 If a Default is not cured as provided in this article, or if a Default is not capable of being cured within the period provided for herein, the non-defaulting Party shall have the right to terminate this Agreement by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not that Party terminates this Agreement, to recover from the defaulting Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this article will survive termination of this Agreement.

Article 8. Insurance

8.1 The Interconnection Customer shall, at its own expense, maintain in force general liability insurance without any exclusion for liabilities related to the interconnection undertaken pursuant to this Agreement. The amount of such insurance shall be sufficient to insure against all reasonably foreseeable direct liabilities given the size and nature of the generating equipment being interconnected, the interconnection itself, and the characteristics of the system to which the interconnection is made. The Interconnection Customer shall obtain additional insurance only if necessary as a function of owning and operating a generating facility. Such insurance shall be obtained from an insurance provider authorized to do business in the State where the interconnection is located. Certification that such insurance is in effect shall be provided upon request of the Transmission Provider, except that the Interconnection Customer shall show proof of insurance to the Transmission Provider no later than ten Business Days prior to the anticipated commercial operation date. An Interconnection Customer of sufficient credit-worthiness may propose to self-insure for such liabilities, and such a proposal shall not be unreasonably rejected.

8.2 The Transmission Provider agrees to maintain general liability insurance or self-insurance consistent with the Transmission Provider's commercial practice. Such insurance or self-insurance shall not exclude coverage for the Transmission Provider's liabilities undertaken pursuant to this Agreement.

8.3 The Parties further agree to notify each other whenever an accident or incident occurs resulting in any injuries or damages that are included within the scope of coverage of such insurance, whether or not such coverage is sought.

Article 9. Confidentiality

9.1 Confidential Information shall mean any confidential and/or proprietary information provided by one Party to the other Party that is clearly marked or otherwise designated "Confidential." For purposes of this Agreement all design, operating specifications, and metering data provided by the Interconnection Customer shall be deemed Confidential Information regardless of whether it is clearly marked or otherwise designated as such.

9.2 Confidential Information does not include information previously in the public domain, required to be publicly submitted or divulged by Governmental Authorities (after notice to the other Party and after exhausting any opportunity to oppose such publication or release), or necessary to be divulged in an action to enforce this Agreement. Each Party receiving Confidential Information shall hold such information in confidence and shall not disclose it to any third party nor to the public without the prior written authorization from the Party providing that information, except to fulfill obligations under this Agreement, or to fulfill legal or regulatory requirements.

9.2.1 Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party as it employs to protect its own Confidential Information.

9.2.2 Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.

9.3 Notwithstanding anything in this article to the contrary, and pursuant to 18 CFR § 1b.20, if FERC, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to this Agreement, the Party shall provide

the requested information to FERC, within the time provided for in the request for information. In providing the information to FERC, the Party may, consistent with 18 CFR § 388.112, request that the information be treated as confidential and non-public by FERC and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party to this Agreement prior to the release of the Confidential Information to FERC. The Party shall notify the other Party to this Agreement when it is notified by FERC that a request to release Confidential Information has been received by FERC, at which time either of the Parties may respond before such information would be made public, pursuant to 18 CFR § 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.

Article 10. Disputes

10.1 The Parties agree to attempt to resolve all disputes arising out of the interconnection process according to the provisions of this article.

10.2 In the event of a dispute, either Party shall provide the other Party with a written Notice of Dispute. Such Notice shall describe in detail the nature of the dispute.

10.3 If the dispute has not been resolved within two Business Days after receipt of the Notice, either Party may contact FERC's Dispute Resolution Service (DRS) for assistance in resolving the dispute.

10.4 The DRS will assist the Parties in either resolving their dispute or in selecting an appropriate dispute resolution venue (e.g., mediation, settlement judge, early neutral evaluation, or technical expert) to assist the Parties in resolving their dispute. DRS can be reached at 1-877-337-2237 or via the internet at <http://www.ferc.gov/legal/adr.asp>.

10.5 Each Party agrees to conduct all negotiations in good faith and will be responsible for one-half of any costs paid to neutral third-parties.

10.6 If neither Party elects to seek assistance from the DRS, or if the attempted dispute resolution fails, then either Party may exercise whatever rights and remedies it may have in equity or law consistent with the terms of this Agreement.

Article 11. Taxes

11.1 The Parties agree to follow all applicable tax laws and regulations, consistent with FERC policy and Internal Revenue Service requirements.

11.2 Each Party shall cooperate with the other to maintain the other Party's tax status. Nothing in this Agreement is intended to adversely affect the Transmission Provider's tax exempt status with respect to the issuance of bonds including, but not limited to, local furnishing bonds.

Article 12. Miscellaneous

12.1 Governing Law, Regulatory Authority, and Rules

The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state of _____ (where the Point of Interconnection is located), without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

12.2 Amendment

The Parties may amend this Agreement by a written instrument duly executed by both Parties, or under article 12.12 of this Agreement.

12.3 No Third-Party Beneficiaries

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

12.4 Waiver

- 12.4.1 The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

12.4.2 Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Transmission Provider. Any waiver of this Agreement shall, if requested, be provided in writing.

12.5 Entire Agreement

This Agreement, including all Attachments, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under this Agreement.

12.6 Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

12.7 No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

12.8 Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or

unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

12.9 Security Arrangements

Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. FERC expects all Transmission Providers, market participants, and Interconnection Customers interconnected to electric systems to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and, eventually, best practice recommendations from the electric reliability authority. All public utilities are expected to meet basic standards for system infrastructure and operational security, including physical, operational, and cyber-security practices.

12.10 Environmental Releases

Each Party shall notify the other Party, first orally and then in writing, of the release of any hazardous substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Small Generating Facility or the Interconnection Facilities, each of which may reasonably be expected to affect the other Party. The notifying Party shall (1) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than 24 hours after such Party becomes aware of the occurrence, and (2) promptly furnish to the other Party copies of any publicly available reports filed with any governmental authorities addressing such events.

12.11 Subcontractors

Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.

- 12.11.1 The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the Transmission Provider be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.
- 12.11.2 The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

12.12 Reservation of Rights

The Transmission Provider shall have the right to make a unilateral filing with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and the Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Agreement under any applicable provision of the Federal Power Act and FERC's rules and regulations; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations, except to the extent that the Parties otherwise agree as provided herein.

Article 13. Notices

13.1 General

Unless otherwise provided in this Agreement, any written notice, demand, or request required or authorized in connection with

this Agreement ("Notice") shall be deemed properly given if delivered in person, delivered by recognized national carrier service, or sent by first class mail, postage prepaid, to the person specified below:

If to the Interconnection Customer:

Interconnection Customer: _____
Attention: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone: _____ Fax: _____

If to the Transmission Provider:

Transmission Provider: _____
Attention: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone: _____ Fax: _____

13.2 Billing and Payment

Billings and payments shall be sent to the addresses set out below:

Interconnection Customer: _____
Attention: _____
Address: _____
City: _____ State: _____ Zip: _____

Transmission Provider: _____
Attention: _____
Address: _____
City: _____ State: _____ Zip: _____

13.3 Alternative Forms of Notice

Any notice or request required or permitted to be given by either Party to the other and not required by this Agreement to be given in writing may be so given by telephone, facsimile or e-mail to the telephone numbers and e-mail addresses set out below:

If to the Interconnection Customer:

Interconnection Customer: _____

Attention: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone: _____ Fax: _____

If to the Transmission Provider:

Transmission Provider: _____
Attention: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone: _____ Fax: _____

13.4 Designated Operating Representative

The Parties may also designate operating representatives to conduct the communications which may be necessary or convenient for the administration of this Agreement. This person will also serve as the point of contact with respect to operations and maintenance of the Party's facilities.

Interconnection Customer's Operating Representative:

Interconnection Customer: _____
Attention: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone: _____ Fax: _____

Transmission Provider's Operating Representative:

Transmission Provider: _____
Attention: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone: _____ Fax: _____

13.5 Changes to the Notice Information

Either Party may change this information by giving five Business Days written notice prior to the effective date of the change.

Article 14. Signatures

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their respective duly authorized representatives.

For the Transmission Provider

Name: _____

Title: _____

Date: _____

For the Interconnection Customer

Name: _____

Title: _____

Date: _____

Glossary of Terms

Affected System - An electric system other than the Transmission Provider's Transmission System that may be affected by the proposed interconnection.

Applicable Laws and Regulations - All duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

Business Day - Monday through Friday, excluding Federal Holidays.

Default - The failure of a breaching Party to cure its breach under the Small Generator Interconnection Agreement.

Distribution System - The Transmission Provider's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which Distribution Systems operate differ among areas.

Distribution Upgrades - The additions, modifications, and upgrades to the Transmission Provider's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Small Generating Facility and render the transmission service necessary to effect the Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

Good Utility Practice - Any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

Governmental Authority - Any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the Interconnection Customer, the Interconnection Provider, or any Affiliate thereof.

Interconnection Customer - Any entity, including the Transmission Provider, the Transmission Owner or any of the affiliates or subsidiaries of either, that proposes to interconnect its Small Generating Facility with the Transmission Provider's Transmission System.

Interconnection Facilities - The Transmission Provider's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Small Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Small Generating Facility to the Transmission Provider's Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades or Network Upgrades.

Interconnection Request - The Interconnection Customer's request, in accordance with the Tariff, to interconnect a new Small Generating Facility, or to increase the capacity of, or make a Material Modification to the operating characteristics of, an existing Small Generating Facility that is interconnected with the Transmission Provider's Transmission System.

Material Modification - A modification that has a material impact on the cost or timing of any Interconnection Request with a later queue priority date.

Network Upgrades - Additions, modifications, and upgrades to the Transmission Provider's Transmission System required at or beyond the point at which the Small Generating Facility interconnects with the Transmission Provider's Transmission System to accommodate the interconnection of the Small Generating Facility with the Transmission Provider's

Transmission System. Network Upgrades do not include Distribution Upgrades.

Operating Requirements - Any operating and technical requirements that may be applicable due to Regional Transmission Organization, Independent System Operator, control area, or the Transmission Provider's requirements, including those set forth in the Small Generator Interconnection Agreement.

Party or Parties - The Transmission Provider, Transmission Owner, Interconnection Customer or any combination of the above.

Point of Interconnection - The point where the Interconnection Facilities connect with the Transmission Provider's Transmission System.

Reasonable Efforts - With respect to an action required to be attempted or taken by a Party under the Small Generator Interconnection Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

Small Generating Facility - The Interconnection Customer's device for the production and/or storage for later injection of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

Tariff - The Transmission Provider or Affected System's Tariff through which open access transmission service and Interconnection Service are offered, as filed with the FERC, and as amended or supplemented from time to time, or any successor tariff.

Transmission Owner - The entity that owns, leases or otherwise possesses an interest in the portion of the Transmission System at the Point of Interconnection and may be a Party to the Small Generator Interconnection Agreement to the extent necessary.

Transmission Provider - The public utility (or its designated agent) that owns, controls, or operates transmission or distribution facilities used for the transmission of electricity in interstate commerce and provides transmission service under the Tariff. The term Transmission Provider should be read to include the Transmission Owner when the Transmission Owner is separate from the Transmission Provider.

Transmission System - The facilities owned, controlled or operated by the Transmission Provider or the Transmission Owner that are used to provide transmission service under the Tariff.

Upgrades - The required additions and modifications to the Transmission Provider's Transmission System at or beyond the Point of Interconnection. Upgrades may be Network Upgrades or Distribution Upgrades. Upgrades do not include Interconnection Facilities.

**Description and Costs of the Small Generating Facility,
Interconnection Facilities, and Metering Equipment**

Equipment, including the Small Generating Facility, Interconnection Facilities, and metering equipment shall be itemized and identified as being owned by the Interconnection Customer, the Transmission Provider, or the Transmission Owner. The Transmission Provider will provide a best estimate itemized cost, including overheads, of its Interconnection Facilities and metering equipment, and a best estimate itemized cost of the annual operation and maintenance expenses associated with its Interconnection Facilities and metering equipment.

Attachment 3 to SGIA

One-line Diagram Depicting the Small Generating Facility,
Interconnection Facilities, Metering Equipment, and Upgrades

Milestones

In-Service Date: _____

Critical milestones and responsibility as agreed to by the Parties:

	Milestone/Date	Responsible Party
(1)	_____	_____
(2)	_____	_____
(3)	_____	_____
(4)	_____	_____
(5)	_____	_____
(6)	_____	_____
(7)	_____	_____
(8)	_____	_____
(9)	_____	_____
(10)	_____	_____

Agreed to by:

For the Transmission Provider _____
Date _____

For the Transmission Owner (If Applicable) _____ Date _____

For the Interconnection Customer _____ Date _____

**Additional Operating Requirements for the Transmission
Provider's Transmission System and Affected Systems Needed to
Support the Interconnection Customer's Needs**

The Transmission Provider shall also provide requirements that must be met by the Interconnection Customer prior to initiating parallel operation with the Transmission Provider's Transmission System.

**Transmission Provider's Description of its Upgrades
and Best Estimate of Upgrade Costs**

The Transmission Provider shall describe Upgrades and provide an itemized best estimate of the cost, including overheads, of the Upgrades and annual operation and maintenance expenses associated with such Upgrades. The Transmission Provider shall functionalize Upgrade costs and annual expenses as either transmission or distribution related.

ATTACHMENT W

**Process for Transitioning to "First-Ready, First-Served"
Interconnection Queue Procedures**

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1. SCOPE AND APPLICATION OF ATTACHMENT W

Section 1.1. Scope of Transition Process

All Small Generating Facility Interconnection Requests and Large Generating Facility Interconnection Requests received and pending by January 31, 2020 (the "Transition Close Date") will be processed under this Attachment W. This Attachment W sets forth the procedures by which Transmission Provider will process, including in a cluster study ("Transition Cluster Study") or cluster re-study ("Transition Cluster Re-Study"), any Interconnection Request from a Small Generating Facility Interconnection Request subject to study under Section 51 of Transmission Provider's OATT or Large Generating Facility Interconnection Request received by the Transition Close Date (collectively, "Transition Requests"). Small Generating Facility Interconnection Requests or Large Generating Facility Interconnection Requests received between the Transition Close Date and the effective date of this Attachment W ("Effective Date") shall be deemed submitted within the first Cluster Request Window following completion of the Transition Cluster Study process in this Attachment W, and shall be processed pursuant to Sections 36 - 48 or Sections 49 - 52 of the OATT, as applicable. Small Generating Facility and Large Generating Facility Interconnection Requests received after the Effective Date shall be processed pursuant to Sections 36 - 48 or Sections 49 - 52 of the OATT, as applicable.

Section 1.2. Transition Cluster Study Eligibility

All Transition Requests shall be subject to the provisions of this Attachment W.

Section 1.2.1. Late-Stage Transition Requests

An Interconnection Customer with a Transition Request that, as of April 1, 2020, is at or beyond the point in the interconnection process when it has been tendered a Facilities Study Agreement but has not executed an LGIA or, as applicable, SGIA, ("Late-Stage Transition Request") shall not be required to enter the Transition Cluster process conducted pursuant to Sections 2 - 4 of this Attachment W. Late-Stage Transition Requests may either: (a) continue through the remaining Facilities Study and interconnection agreement execution phases of this Attachment W; or

(b) opt in to the Transition Cluster process performed under Sections 2 - 4 of this Attachment W by notifying Transmission Provider in writing by August 15, 2020 and meeting the requirements in Section 2. Late-Stage Transition Requests electing to opt in to the Transition Cluster process shall forfeit and/or terminate as appropriate any previous interconnection study results or interconnection study agreements, or previously tendered but unexecuted LGIA or SGIA. For Late-Stage Transition Requests that elect to continue through the remaining Facilities Study and interconnection agreement execution phases of this Attachment W, i.e., elect not to join the Transition Cluster, the Interconnection Customer must provide: (a) a demonstration of Site Control pursuant to Section 2.1.2 of this Attachment W; and, in the case of a Large Generator Interconnection Request only, (b) a demonstration of a Readiness Milestone option in Sections 2.1.1(b) or 2.1.1(c) of this Attachment W. Each demonstration required by the previous sentence for a Late-Stage Transition Request must be made before Transmission Provider will tender an LGIA for execution, but made in no event later than October 15, 2020. Any Late-Stage Transition Requests that fail to meet the requirements of this Section 1.2.1 shall be deemed withdrawn.

Section 1.3. Relationship to LGIP and SGIP

Except as otherwise provided in, or modified by, this Attachment W, Sections 36 - 48 and, in the case of Small Generating Facilities, Sections 49 - 52 of Transmission Provider's OATT, shall apply to Transition Requests.

Section 1.4. Defined Terms

Unless otherwise indicated in this Attachment W, capitalized terms used in this Attachment W shall have the definitions set forth in OATT Section 36 and, in the case of Small Generating Facilities, the definitions set forth in OATT Attachment O, Appendix 1.

2. PROCESSING OF TRANSITION REQUESTS

Section 2.1. Transition Cluster Study Eligibility: Readiness Milestones, Site Control, and Additional Study Deposit

To be eligible for inclusion in a Transition Cluster Study, a Transition Request must: (a) satisfy the requirements of this Section 2.1 (except Section 2.1.1) by August 15, 2020, subject to the Interconnection Customer's opportunity to correct identified deficiencies pursuant to Section 2.2; and (b) satisfy all requirements of Section 2.1 (including Section 2.1.1) no later than October 15, 2020 ("the Transition Readiness Deadline").

Notwithstanding Section 38.4.1, Interconnection Customer shall promptly inform Transmission Provider of any material change to Interconnection Customer's demonstration, or continuing demonstration, of Site Control under Section 2.1.2 or satisfaction of a Readiness Milestone Option under Section 2.1.1 that has already been previously demonstrated. Upon Transmission Provider determining separately that Interconnection Customer fails to continue demonstrating Site Control once initially demonstrated, or fails to meet a previously demonstrated Readiness Milestone Option under Section 2.1.1, Transmission Provider shall give Interconnection Customer ten (10) Business Days to demonstrate satisfaction with the applicable requirement to Transmission Provider's satisfaction. Absent such demonstration, Transmission Provider will deem the subject Interconnection Request withdrawn.

Section 2.1.1. Readiness Criteria Applicable to Transition Requests for Large Generating Facilities

By no later than the Transition Readiness Deadline, Interconnection Customer with a Large Generating Facility Transition Request eligible for inclusion in a Transition Cluster Study must submit to the Transmission Provider sufficient evidence of one of the following Readiness Milestone Options totaling the entire capacity of the Generating Facility (or requested Interconnection Service amount if the requested Interconnection Service is less than the Generating Facility Capacity in the case of Large Generating Facility Transition Requests only) that is the subject of the Transition Request:

(a) Executed term sheet (or comparable evidence) related to a contract for sale of (i) the constructed Generating Facility to a load-serving entity or to a commercial, industrial, or other large end-use customer, (ii) the Generating Facility's energy where the term of sale is not less than five (5) years, or (iii) the Generating Facility's ancillary services if the Generating Facility is an electric storage resource where the term of sale is not less than five (5) years;

(b) Executed contract binding upon the parties for sale of (i) the constructed Generating Facility to a load-serving entity or to a commercial, industrial, or other large end-use customer, (ii) the Generating Facility's energy where the term of sale is not less than five (5) years, or (iii) the Generating Facility's ancillary services if the Generating Facility is an electric storage resource where the term of sale is not less than five (5) years; or

(c) Reasonable evidence that the Generating Facility has been selected in a Resource Plan or Resource Solicitation Process by or for a load-serving entity, or is being developed for purposes of a sale to a commercial, industrial, or other large end-use customer.

For the avoidance of doubt, the additional readiness criteria under Section 38.4.1(v) of the OATT do not apply to Transition Requests under this Attachment W.

Section 2.1.2. Site Control

Interconnection Customers with Transition Requests for Small Generating Facilities shall demonstrate Site Control pursuant to Section 49.5 of the OATT.

Interconnection Customers with Transition Requests for Large Generating Facilities shall either:

(a) post a deposit of \$10,000, or

(b) demonstrate Site Control as defined in Section 36 of the OATT. Specifications for acceptable site size

for the purposes of demonstrating Site Control are posted on Transmission Provider's OASIS website. Interconnection Customer may propose alternative specifications for site size to those posted on OASIS for Transmission Provider approval. In the event Transmission Provider and Interconnection Customer cannot reach agreement related to adequacy of site size, Transmission Provider will accept a Professional Engineer (licensed in the state of the Point of Interconnection) stamped site plan drawing that depicts the proposed generation arrangement and specifies the maximum facility output for that arrangement. Deposits posted in accordance with this Section 2.1.2 shall be applied toward any Interconnection Studies for the Transition Request.

Section 2.1.3. No Additional Cluster Study Deposits

Other than deposits provided in accordance with Section 2.1.2 of this Attachment W, Transmission Provider shall not assess any additional study deposits for Transition Requests entering the Transition Cluster Studies. Consistent with Section 3.2, Interconnection Customer with a Transition Request shall be responsible for its allocable share of actual Transition Cluster Study costs, and restudy costs if applicable.

Section 2.1.4. Definitive Point(s) of Interconnection Designation

If not designated already, Interconnection Customer with a Transition Request must designate a definitive Point of Interconnection to be studied in the Transition Cluster study.

Section 2.1.5. Interconnection Service Type Designation

If not designated already, Interconnection Customer with a Transition Request must designate either Energy Resource Interconnection Service or Network Resource Interconnection Service to be studied in the Transition Cluster Study.

Section 2.1.6. Completed and Updated Interconnection Request Form

Interconnection Customer with a Transition Request must provide the applicable Interconnection Request form, such as Appendix 1 to the LGIP, with all information updated as of the submittal.

Section 2.2. Deficiencies Curable by Transition Readiness Deadline

If an Interconnection Request fails to meet the requirements set forth in Sections 2.1.2, 2.1.4, 2.1.5 or 2.1.6 by August 15, 2020, Transmission Provider shall notify the Interconnection Customer within fifteen (15) Business Days of such failure. Interconnection Customer shall provide Transmission Provider the additional requested information needed to satisfy the requirements of Section 2.1 by no later than the Transition Readiness Deadline. Transition Requests that do not meet the requirements in Section 2.1 of this Attachment W by the Transition Readiness Deadline shall be deemed withdrawn.

3. TRANSITION REQUEST CLUSTER STUDIES

Section 3.1. Transition Cluster Preparation

Within five (5) Business Days following the Transition Readiness Deadline, Transmission Provider shall post on its OASIS site a list of all Transition Requests to be included in the Transition Cluster Study.

Within ten (10) Business Days of the Transition Readiness Deadline, Transmission Provider shall hold a scoping meeting, consistent with the process described in Section 38.4.4 of the OATT, with all Transition Requests to be studied in the Transition Cluster.

All Transition Requests that meet the requirements of Section 2.1 of this Attachment W by the Transition Readiness Deadline and that have executed a Cluster Study Agreement in the form of Appendix 3 to the Transmission Provider's LGIP shall be included in that Transition Cluster Study. Any Transition Requests that do not meet the requirements of Section 2 to be eligible to enter the Transition Cluster Study or that are undergoing Dispute Resolution as of the Transition Readiness Deadline shall not be included in the Transition Cluster.

Section 3.2. Transition Request Cluster Study Agreement

Unless otherwise agreed, by no later than five (5) Business Days following the Transition Readiness Deadline, Transmission Provider shall provide to Interconnection Customer a Cluster Study Agreement in the form of Appendix 3 to Transmission Provider's LGIP. Pursuant to the Cluster Study Agreement, the Interconnection Customer shall compensate Transmission Provider for the actual costs of the Transition Cluster Study in accordance with the Study Cost Allocation methodology in Section 39.2.2 of the Transmission Provider's OATT, net of any remaining study deposits already provided by the applicable Interconnection Customer prior to the Effective Date. Along with the Cluster Study Agreement, Transmission Provider shall provide to Interconnection Customer a non-binding updated good faith estimate of the cost for completing the Transition Cluster Study.

Section 3.3. Execution of Transition Cluster Study Agreement

Interconnection Customer shall execute and return the Cluster Study Agreement to Transmission Provider no later than fifteen (15) Business Days after the Transition Readiness Deadline. If the Interconnection Customer elects not to execute the Transition Cluster Study Agreement, its Interconnection Request shall be deemed withdrawn.

Section 3.4. Conducting the Transition Cluster Studies

Transmission Provider may conduct separate Transition Cluster Studies for different electrically relevant areas as set forth in this Section 3.4 and its subsections. After all Interconnection Customers in the Transition Cluster that have met the requirements of Section 2.1 of this Attachment W have executed Cluster Study Agreements or the time period for such execution under Section 3.3 has lapsed, the Transmission Provider will commence the Transition Cluster Studies and perform such Transition Cluster Studies pursuant to the procedures in Sections 42.4 and 42.5 of the OATT.

Section 3.4.1. Use of Cluster Areas

Transmission Provider may segment and perform the Transition Cluster Studies according to geographically and electrically relevant areas on the Transmission

Provider's Transmission System ("Cluster Area") in the manner described in Section 42.4 of the OATT.

Section 3.4.2. Scope of Transition Request Cluster Study

The Transition Cluster Study shall have the same scope as the scope of the Cluster System Impact Study, as set forth in Section 42.3 of the Transmission Provider's OATT.

Transmission Provider shall use Reasonable Efforts to complete the Transition Cluster Study no later than one hundred-fifty (150) Calendar Days after the Transition Readiness Deadline.

Section 3.5. Allocation of Transmission Provider's Interconnection Facilities and Network Upgrade Costs Within Transition Cluster Studies

Except as may be modified in Section 3.7 in this Attachment W, for Transmission Provider's Interconnection Facilities and Network Upgrades identified in Transition Cluster Study, Transmission Provider shall calculate the share of costs for each Interconnection Customer within the Transition Cluster in accordance with the allocation methodology in Section 39.2.3 of the Transmission Provider's OATT. Interconnection Customer funding of Network Upgrades are eligible for credits as provided in Article 11.4 of the LGIA.

Section 3.6. Transition Request Cluster Study Report and Meeting with Transmission Provider

Transmission Provider will publish a report following the completion of the Transition Cluster Study ("Transition Cluster Study Report"). Within ten (10) Business Days of furnishing Transition Cluster Study Report or, if a Transition Re-Study was required pursuant to the procedures in Section 42.5(c) a re-study report ("Cluster Re-Study Report"), to Interconnection Customers and posting such report on OASIS, Transmission Provider shall convene an open meeting to discuss the study results ("Cluster Study Report Meeting" or "Cluster Re-Study Report Meeting"). Transmission Provider shall, upon request, also make itself available to meet with individual Interconnection Customers after the report is provided.

Section 3.7. Gateway South-Dependent Transition Cluster Study

This Section 3.7 shall apply only to the Transition Cluster Study conducted for the eastern Wyoming region that will be dependent in part on the physical limitations of the planned Gateway South transmission line project (the planned 500 kV line from the planned Aeolus substation in southeastern Wyoming into the Clover substation near Mona, Utah) ("Gateway South"). The Gateway South-dependent Transition Cluster Study will be conducted in accordance with Sections 3.4 and Section 4 of this Attachment W and, after taking into account executed interconnection agreements as of the Effective Date of this Attachment W that require Gateway South, will further determine the number of Gateway South-dependent Transition Requests that can receive interconnection service on the Gateway South project and which Transition Requests, if any, will require additional upgrades to be granted interconnection service due to the finite interconnection capacity available on the Gateway South project. If the Gateway South-dependent Transition Cluster Study determines that not all Gateway South-dependent Transition Requests can be accommodated by the Gateway South project, Transmission Provider shall allocate the remaining Gateway South project interconnection capacity according to the preexisting Queue Position of each Gateway South-dependent Transition Request. For Gateway South-dependent Transition Requests that are not allocated Gateway South interconnection capacity, Transmission Provider shall identify the incremental Network Upgrades that are required to grant the requested interconnection service to such remaining Gateway South-dependent Transition Requests. To the extent Transmission Provider does not elect to fund the remaining required Network Upgrades identified in the Transition Cluster Study report, the funding responsibility for such incremental upgrades beyond Gateway South shall be allocated to each member of the Transition Cluster according to the methodology in Section 3.5 of this Attachment W.

4. RE-STUDIES

If Re-Study of the Transition Cluster Study is required due to a project from Transition Cluster dropping out, or a modification of a higher queued project subject to Section 39.4 of the OATT, Transmission Provider shall notify

Interconnection Customer(s) in writing. The Transmission Provider shall make Reasonable Efforts to ensure such Re-Study takes no longer than one hundred fifty (150) Calendar Days from the date of notice. Any cost of Re-Study shall be borne by Interconnection Customer(s) being re-studied in accordance with Section 3 of this Attachment W.

5. INTERCONNECTION FACILITIES STUDIES FOR TRANSITION REQUESTS

Section 5.1. Increased Readiness Showing

Except for Late-Stage Transition Requests electing not to enter a Transition Cluster, which are subject to separate readiness requirements under Section 1.2.1 of this Attachment W, before a Transition Request can proceed to the Facilities Study phase, the applicable Interconnection Customer must make an enhanced readiness showing as set forth in Section 5.2 of this Attachment W.

Section 5.2. Facilities Studies

Transmission Provider will conduct a separate Facilities Study for each Transition Request. Simultaneously with the issuance of the Transition Cluster Study Report, or Transition Cluster Re-Study Report if any, Transmission Provider shall provide to Interconnection Customer an Interconnection Facilities Study Agreement in the form of Appendix 4 to the LGIP, or Appendix 8 to Attachment O of Transmission Provider's OATT, as applicable. The Interconnection Facilities Study Agreement shall provide that Interconnection Customer shall compensate Transmission Provider for the actual cost of the Interconnection Facilities Study. Within ten (10) Business Days following the Cluster Study Report Meeting or, as applicable Cluster Re-Study Report meeting, Transmission Provider shall provide to Interconnection Customer a non-binding good faith estimate of the cost and timeframe for completing the Interconnection Facilities Study. Interconnection Customer shall execute the Interconnection Facilities Study Agreement and deliver the executed Interconnection Facilities Study Agreement to Transmission Provider within thirty (30) Calendar Days after its receipt, together with:

- a. any required technical data;
- b. a demonstration of Site Control pursuant to Section 2.1.2(b) of this Attachment W (for Large Generating Facility Transition Requests only); and

c. demonstration of a Readiness Milestone option in Section 2.1.1(b) or (c) of this Attachment W (for Large Generating Facility Transition Requests only).

Interconnection Customers that fail to timely return an executed Interconnection Facilities Study Agreement or fail to satisfy the requirements of this Section 5.2 and its subparts will be deemed withdrawn. Withdrawal of Interconnection Requests at this stage may trigger a Cluster Re-Study.

Section 5.3. Other Facility Study Procedures

Except as otherwise provided in this Section 5, Interconnection Customer and Transmission Provider shall follow the procedures governing Facility Studies in Section 43 of Transmission Provider's OATT for Large Generating Facilities, or, in the case of Small Generating Facilities, Section 51.5 of Transmission Provider's OATT.

6. LARGE GENERATOR INTERCONNECTION AGREEMENT (LGIA) AND SMALL GENERATOR INTERCONNECTION AGREEMENT (SGIA)

Interconnection Customer and Transmission Provider shall follow the procedures governing Large Generator Interconnection Agreements in Section 46 of Transmission Provider's OATT or, in the case of Small Generating Facilities, Section 51.5.7 of Transmission Provider's OATT.

7. WITHDRAWAL

Interconnection Customer may withdraw its Transition Request at any time by written notice of such withdrawal to Transmission Provider. In addition, if Interconnection Customer fails to adhere to all requirements of this Attachment W or the LGIP (as applicable), except as provided in Section 48.5 (Disputes) of the OATT, Transmission Provider shall deem the Transition Request to be withdrawn and shall provide written notice to Interconnection Customer of the deemed withdrawal and an explanation of the reasons for such deemed withdrawal. Upon receipt of such written notice, Interconnection Customer shall have fifteen (15) Business Days in which to either respond with information or actions that cures the deficiency or to notify Transmission Provider of its intent to pursue Dispute Resolution.

An Interconnection Customer that withdraws or is deemed to have withdrawn its Transition Request shall pay to Transmission Provider all costs that Transmission Provider prudently incurs with respect to that Transition Request prior to Transmission Provider's receipt of notice described above. Interconnection Customer must pay all monies due to Transmission Provider before it is allowed to obtain any Interconnection Study data or results. The additional Withdrawal Penalties under Section 38.7 of the OATT will not apply to withdrawn Transition Requests.

PACIFICORP

FERC ELECTRIC TARIFF

VOLUME NO. 11

PRO FORMA OPEN ACCESS

TRANSMISSION TARIFF

I. COMMON SERVICE PROVISIONS

1 Definitions

- 1.1 Affiliate
- 1.2 Ancillary Services
- 1.3 Annual Transmission Costs
- 1.3A Annual Transmission Revenue Requirement (ATRR)
- 1.4 Application
- 1.4A Balancing Authority (BA)
- 1.4B Balancing Authority Area (BAA)
- 1.4B1 Balancing Authority Area Resource
- 1.4C Bid Cost Recovery (BCR)
- 1.4D California Independent System Operator (CAISO)
- 1.4E CAISO Controlled Grid or CAISO BAA
- 1.5 Commission
- 1.6 Completed Application
- 1.7 Control Area
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- 1.10 Designated Agent
- 1.11 Direct Assignment Facilities
- 1.11A Dispatch Instruction
- 1.11B Dispatch Operating Point
- 1.11C Disturbance Recovery Event
- 1.11D Dynamic Transfer
- 1.11E Energy Imbalance Market (EIM)
- 1.11F EIM Area
- 1.11F1 EIM Available Balancing Capacity
- 1.11G EIM Entity
- 1.11H EIM Transfer
- 1.12 Eligible Customer
- 1.12A e-Tag
- 1.13 Facilities Study
- 1.14 Firm Point-To-Point Transmission Service
- 1.14A Flexible Ramping Requirement (or Flexible Ramping Product)
- 1.14A1 Flexible Ramping Forecasted Movement
- 1.14A2 Flexible Ramping Uncertainty Award
- 1.14A3 Flexible Ramping Uncertainty Requirement
- 1.14B Forecast Data
- 1.15 Good Utility Practice
- 1.15A Hourly Pricing Proxy

1.15B Interconnection Customer
1.15C Imbalance Energy
1.15D Instructed Imbalance Energy (IIE)
1.15E Interchange
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1.17A Locational Marginal Price (LMP)
1.18 Load Shedding
1.19 Long-Term Firm Point-To-Point Transmission
Service
1.19A Manual Dispatch
1.19B Market Operator (MO)
1.19C Measured Demand
1.19D Metered Demand
1.19E MO Tariff
1.20 Native Load Customers
1.21 Network Customer
1.22 Network Integration Transmission
Service
1.23 Network Load
1.24 Network Operating Agreement
1.25 Network Operating Committee
1.26 Network Resource
1.27 Network Upgrades
1.28 Non-Firm Point-To-Point Transmission
Service
1.29 Non-Firm Sale
1.29A Non-Participating Resource
1.30 Open Access Same-Time Information System
(OASIS)
1.30A Operating Hour
1.30B PacifiCorp COI Segment
1.30C PacifiCorp's BAAs
1.30D PacifiCorp BAA Transmission Owner
1.30E PacifiCorp EIM Business Practice
(PacifiCorp EIM BP)
1.30F PacifiCorp EIM Entity
1.30G PacifiCorp EIM Entity Scheduling
Coordinator
1.30H PacifiCorp EIM Participating Resource
1.30I PacifiCorp EIM Participating Resource
Scheduling Coordinator
1.30J PacifiCorp Interchange Rights Holder
1.31 Part I

- 1.32 Part II
 - 1.33 Part III
 - 1.34 Part IV
 - 1.35 Part V
 - 1.36 Parties
 - 1.37 Point(s) of Delivery
 - 1.38 Point(s) of Receipt
 - 1.39 Point-To-Point Transmission Service
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IV. **LARGE GENERATION INTERCONNECTION**
SERVICE

36 Definitions

Adverse System Impact shall mean the negative effects due to technical or operational limits on conductors or equipment being exceeded that may compromise the safety and reliability of the electric system.

Affected System shall mean an electric system other than the Transmission Provider's Transmission System that may be affected by the proposed interconnection.

Affected System Operator shall mean the entity that operates an Affected System.

Affiliate shall mean, with respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

Ancillary Services shall mean those services that are necessary to support the transmission of capacity and energy from resources to loads while maintaining reliable operation of the Transmission Provider's Transmission System in accordance with Good Utility Practice.

Applicable Laws and Regulations shall mean all duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

Applicable Reliability Council shall mean the reliability council applicable to the Transmission System to which the Generating Facility is directly interconnected.

Applicable Reliability Standards shall mean the requirements and guidelines of NERC, the Applicable

Reliability Council, and the Control Area of the Transmission System to which the Generating Facility is directly interconnected.

Base Case shall mean the base case power flow, short circuit, and stability data bases used for the Interconnection Studies by the Transmission Provider or Interconnection Customer.

Breach shall mean the failure of a Party to perform or observe any material term or condition of the Standard Large Generator Interconnection Agreement.

Breaching Party shall mean a Party that is in Breach of the Standard Large Generator Interconnection Agreement.

Business Day shall mean Monday through Friday, excluding Federal Holidays.

Calendar Day shall mean any day including Saturday, Sunday or a Federal Holiday.

Cluster shall mean a group of Interconnection Requests (one or more) that are studied together for the purpose of conducting the Cluster Study.

Cluster Area shall mean the areas of the Transmission Provider's Transmission System that are included together in a Cluster, as described further in Section 42.4 of this LGIP.

Cluster Request Window shall have the meaning set forth in Section 39.2.1 of this LGIP.

Cluster Re-Study shall mean a re-study of a Cluster Study conducted pursuant to Section 42.4 of this LGIP.

Cluster Re-Study Report shall mean the report issued following completion of a Cluster Re-Study pursuant to Section 42.4 of this LGIP.

Cluster Re-Study Meeting shall mean the meeting held to discuss the results of a Cluster Re-Study pursuant to Section 42.4 of this LGIP.

Cluster Study shall mean an Interconnection Study evaluating one or more Interconnection Requests within a Cluster as described in more detail in Section 42.4 of this LGIP.

Cluster Study Agreement shall mean the form of agreement contained in Appendix 3 to the Standard Large Generator Interconnection Procedures for conducting the Cluster Study.

Cluster Study Report shall mean the report issued following completion of a Cluster Study pursuant to Section 42.4 of this LGIP.

Cluster Study Report Meeting shall mean the meeting held to discuss the results of a Cluster Study pursuant to Section 42.4 of this LGIP.

Clustering shall mean the process whereby a group of Interconnection Requests is studied together, instead of serially, ~~for the purpose of conducting the Interconnection System Impact Study as described in more detail in Section 42.~~

Commercial Operation shall mean the status of a Generating Facility that has commenced generating electricity for sale, excluding electricity generated during Trial Operation.

Commercial Operation Date of a unit shall mean the date on which the Generating Facility commences Commercial Operation as agreed to by the Parties pursuant to Appendix E to the Standard Large Generator Interconnection Agreement.

Confidential Information shall mean any confidential, proprietary or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy or compilation relating to the present or planned business of a Party, which is designated as confidential by the Party supplying the information, whether conveyed orally, electronically, in writing, through inspection, or otherwise.

Contingent Facilities shall mean those unbuilt Interconnection Facilities and Network Upgrades upon which the Interconnection Request's costs, timing, and study findings are dependent, and if delayed or not built, could cause a need for Re-Studies of the Interconnection Request or a reassessment of the Interconnection Facilities and/or Network Upgrades and/or costs and timing.

Control Area shall mean an electrical system or systems bounded by interconnection metering and telemetry, capable of controlling generation to maintain its interchange schedule with other Control Areas and contributing to frequency regulation of the interconnection. A Control Area must be certified by an Applicable Reliability Council.

[Customer Engagement Window shall have the meaning set forth in Section 42.2 of this LGIP.](#)

Default shall mean the failure of a Breaching Party to cure its Breach in accordance with Article 17 of the Standard Large Generator Interconnection Agreement.

Dispute Resolution shall mean the procedure for resolution of a dispute between the Parties in which they will first attempt to resolve the dispute on an informal basis.

Distribution System shall mean the Transmission Provider's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which distribution systems operate differ among areas.

Distribution Upgrades shall mean the additions, modifications, and upgrades to the Transmission Provider's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Generating Facility and render the transmission service necessary to effect Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

Effective Date shall mean the date on which the Standard

Large Generator Interconnection Agreement becomes effective upon execution by the Parties subject to acceptance by FERC, or if filed unexecuted, upon the date specified by FERC.

Emergency Condition shall mean a condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (2) that, in the case of a Transmission Provider, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to Transmission Provider's Transmission System, Transmission Provider's Interconnection Facilities or the electric systems of others to which the Transmission Provider's Transmission System is directly connected; or (3) that, in the case of Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Generating Facility or Interconnection Customer's Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions; provided that Interconnection Customer is not obligated by the Standard Large Generator Interconnection Agreement to possess black start capability.

Energy Resource Interconnection Service shall mean an Interconnection Service that allows the Interconnection Customer to connect its Generating Facility to the Transmission Provider's Transmission System to be eligible to deliver the Generating Facility's electric output using the existing firm or nonfirm capacity of the Transmission Provider's Transmission System on an as available basis. Energy Resource Interconnection Service in and of itself does not convey transmission service.

Engineering & Procurement (E&P) Agreement shall mean an agreement that authorizes the Transmission Provider to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection in order to advance the implementation of the Interconnection Request.

Environmental Law shall mean Applicable Laws or Regulations relating to pollution or protection of the environment or

natural resources.

Federal Power Act shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a et seq.

FERC shall mean the Federal Energy Regulatory Commission (Commission) or its successor.

[Financial Security shall mean any of the forms of collateral or security listed in Section 2 of the Creditworthiness Procedures included in Attachment L to this Tariff.](#)

Force Majeure shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure event does not include acts of negligence or intentional wrongdoing by the Party claiming Force Majeure.

Generating Facility shall mean Interconnection Customer's device for the production and/or storage for later injection of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

Generating Facility Capacity shall mean the net capacity of the Generating Facility and the aggregate net capacity of the Generating Facility where it includes multiple energy production devices.

Good Utility Practice shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be

acceptable practices, methods, or acts generally accepted in the region.

Governmental Authority shall mean any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include Interconnection Customer, Transmission Provider, or any Affiliate thereof.

Hazardous Substances shall mean any chemicals, materials or substances defined as or included in the definition of "hazardous substances," "hazardous wastes," "hazardous materials," "hazardous constituents," "restricted hazardous materials," "extremely hazardous substances," "toxic substances," "radioactive substances," "contaminants," "pollutants," "toxic pollutants" or words of similar meaning and regulatory effect under any applicable Environmental Law, or any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law.

[Informational Interconnection Study shall mean an analysis based on assumptions specified by Interconnection Customer in the Informational Interconnection Study Agreement and conducted pursuant to Section 41 of this LGIP.](#)

[Informational Interconnection Study Agreement shall mean the form of agreement contained in Appendix 2A to the Standard Large Generator Interconnection Procedures for conducting the Informational Interconnection Study.](#)

[Informational Interconnection Study Request shall mean an Interconnection Customer's request in the form of Appendix 2 to the Standard Large Generator Interconnection Procedures.](#)

Initial Synchronization Date shall mean the date upon which the Generating Facility is initially synchronized and upon which Trial Operation begins.

In-Service Date shall mean the date upon which the Interconnection Customer reasonably expects it will be ready to begin use of the Transmission Provider's Interconnection Facilities to obtain back feed power.

Interconnection Customer shall mean any entity, including the Transmission Provider, Transmission Owner or any of the Affiliates or subsidiaries of either, that proposes to interconnect its Generating Facility with the Transmission Provider's Transmission System. For purposes of the Transmission Provider's Cluster Study process conducted pursuant to Section 42 of this LGIP, and except as modified by Section 51 of Transmission Provider's OATT, "Interconnection Customer" shall also mean any Small Generating Facility that is participating in a Cluster.

Interconnection Customer's Interconnection Facilities shall mean all facilities and equipment, as identified in Appendix A of the Standard Large Generator Interconnection Agreement, that are located between the Generating Facility and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Generating Facility to the Transmission Provider's Transmission System. Interconnection Customer's Interconnection Facilities are sole use facilities.

Interconnection Facilities shall mean the Transmission Provider's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Generating Facility to the Transmission Provider's Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades. Interconnection Facilities may be shared by more than one Generating Facility in a Cluster.

Interconnection Facilities Study shall mean a study conducted by the Transmission Provider or a third party

consultant for the Interconnection Customer to determine a list of facilities (including Transmission Provider's Interconnection Facilities and Network Upgrades as identified in the ~~Interconnection System Impact~~Cluster Study), the cost of those facilities, and the time required to interconnect the Generating Facility with the Transmission Provider's Transmission System. The scope of the study is defined in Section 43 of the Standard Large Generator Interconnection Procedures.

Interconnection Facilities Study Agreement shall mean the form of agreement contained in Appendix 4 of the Standard Large Generator Interconnection Procedures for conducting the Interconnection Facilities Study.

~~Interconnection Feasibility Study shall mean a preliminary evaluation of the system impact and cost of interconnecting the Generating Facility to the Transmission Provider's Transmission System, the scope of which is described in Section 41 of the Standard Large Generator Interconnection Procedures.~~

~~Interconnection Feasibility Study Agreement shall mean the form of agreement contained in Appendix 2 of the Standard Large Generator Interconnection Procedures for conducting the Interconnection Feasibility Study.~~

Interconnection Request shall mean an Interconnection Customer's request, in the form of Appendix 1 to the Standard Large Generator Interconnection Procedures, in accordance with the Tariff, to interconnect a new Generating Facility, or to increase the capacity of, or make a Material Modification to the operating characteristics of, an existing Generating Facility that is interconnected with the Transmission Provider's Transmission System. For purposes of the Transmission Provider's Cluster Study process conducted pursuant to Section 42 of this LGIP, and except as modified by Section 51 of Transmission Provider's OATT, "Interconnection Request" shall also mean any interconnection request from a Small Generating Facility that is participating in a Cluster.

Interconnection Service shall mean the service provided by the Transmission Provider associated with interconnecting

the Interconnection Customer's Generating Facility to the Transmission Provider's Transmission System and enabling it to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Standard Large Generator Interconnection Agreement and, if applicable, the Transmission Provider's Tariff.

Interconnection Study shall mean any of the following studies: the Informational Interconnection-~~Feasibility~~ Study, the Cluster Study, the Surplus Interconnection Service System Impact Study, and the Interconnection Facilities Study described in the Standard Large Generator Interconnection Procedures.

~~Interconnection System Impact Study shall mean an engineering study that evaluates the impact of the proposed interconnection on the safety and reliability of Transmission Provider's Transmission System and, if applicable, an Affected System. The study shall identify and detail the system impacts that would result if the Generating Facility were interconnected without project modifications or system modifications, focusing on the Adverse System Impacts identified in the Interconnection Feasibility Study, or to study potential impacts, including but not limited to those identified in the Scoping Meeting as described in the Standard Large Generator Interconnection Procedures.~~

~~Interconnection System Impact Study Agreement shall mean the form of agreement contained in Appendix 3 of the Standard Large Generator Interconnection Procedures for conducting the Interconnection System Impact Study.~~

IRS shall mean the Internal Revenue Service.

Joint Operating Committee shall be a group made up of representatives from Interconnection Customers and the Transmission Provider to coordinate operating and technical considerations of Interconnection Service.

Large Generating Facility shall mean a Generating Facility having a Generating Facility Capacity of more than 20 MW.

Loss shall mean any and all losses relating to injury to or

death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's performance, or non-performance of its obligations under the Standard Large Generator Interconnection Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnifying Party.

Material Modification shall mean those modifications that have a material impact on the cost or timing of any Interconnection Request with a later queue priority date.

Metering Equipment shall mean all metering equipment installed or to be installed at the Generating Facility pursuant to the Standard Large Generator Interconnection Agreement at the metering points, including but not limited to instrument transformers, MWh-meters, data acquisition equipment, transducers, remote terminal unit, communications equipment, phone lines, and fiber optics.

NERC shall mean the North American Electric Reliability Corporation or its successor organization.

Network Resource shall mean any designated generating resource owned, purchased, or leased by a Network Customer under the Network Integration Transmission Service Tariff. Network Resources do not include any resource, or any portion thereof, that is committed for sale to third parties or otherwise cannot be called upon to meet the Network Customer's Network Load on a non-interruptible basis.

Network Resource Interconnection Service shall mean an Interconnection Service that allows the Interconnection Customer to integrate its Large Generating Facility with the Transmission Provider's Transmission System (1) in a manner comparable to that in which the Transmission Provider integrates its generating facilities to serve native load customers; or (2) in an RTO or ISO with market based congestion management, in the same manner as Network Resources. Network Resource Interconnection Service in and of itself does not convey transmission service.

Network Upgrades shall mean the additions, modifications,

and upgrades to the Transmission Provider's Transmission System required at or beyond the point at which the Interconnection Facilities connect to the Transmission Provider's Transmission System to accommodate the interconnection of the Large Generating Facility to the Transmission Provider's Transmission System.

Notice of Dispute shall mean a written notice of a dispute or claim that arises out of or in connection with the Standard Large Generator Interconnection Agreement or its performance.

~~Optional Interconnection Study shall mean a sensitivity analysis based on assumptions specified by the Interconnection Customer in the Optional Interconnection Study Agreement.~~

~~Optional Interconnection Study Agreement shall mean the form of agreement contained in Appendix 5 of the Standard Large Generator Interconnection Procedures for conducting the Optional Interconnection Study.~~

Party or Parties shall mean Transmission Provider, Transmission Owner, Interconnection Customer or any combination of the above.

Permissible Technological Advancement shall mean a technological advancement requested by the Interconnection Customer to the components of the Large Generating Facility described in the Interconnection Customer's Interconnection Request that (a) would result in electrical performance that is equal to or better than the electrical performance expected prior to the change; (b) would not increase the interconnection customer's requested interconnection service, and (c) would not cause any reliability concerns (i.e., material impacts to the transmission system, including impacts to short circuit capability limits, steady-state thermal and voltage limits, or dynamic system stability and response). Technological advancements that do not degrade the electrical characteristics of the generating equipment (e.g., the ratings, impedances, efficiencies, capabilities, and performance of the equipment under steady state and dynamic conditions) qualify as having performance that is equal to or better than the performance expected prior to the change.

Proposed technological advancements that generally can be considered Permissible Technological Advancements without extensive or additional studies include, without limitation, advancements to turbines, inverters, plant supervisory equipment or other proposed modifications that may affect a Large Generating Facility's ability to provide ancillary services. Proposed technological advancements that entail changes to the generation technology or fuel type (for example, and without limitation, a change from wind to solar generation technology) are not Permissible Technological Advancements.

Point of Change of Ownership shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Customer's Interconnection Facilities connect to the Transmission Provider's Interconnection Facilities.

Point of Interconnection shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Facilities connect to the Transmission Provider's Transmission System.

Provisional Interconnection Service shall mean Interconnection Service provided by Transmission Provider associated with interconnecting the Interconnection Customer's Generating Facility to Transmission Provider's Transmission System and enabling that Transmission System to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Provisional Large Generator Interconnection Agreement and, if applicable, the Tariff.

Provisional Large Generator Interconnection Agreement shall mean the interconnection agreement for Provisional Interconnection Service established between Transmission Provider and/or the Transmission Owner and the Interconnection Customer. This agreement shall take the form of the Large Generator Interconnection Agreement, modified for provisional purposes.

Queue Position shall mean the order of a valid Interconnection Request, relative to all other pending valid Interconnection Requests, that is established based

upon the date and time ~~of receipt of the valid~~that
Interconnection ~~Request by the Transmission~~
~~Provider.~~Customer satisfies all of the requirements of
Sections 38, 39, and 42 to enter the Cluster Study Process.

Reasonable Efforts shall mean, with respect to an action required to be attempted or taken by a Party under the Standard Large Generator Interconnection Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

Readiness Milestone Options shall mean the options set forth in Section 38.4.1(v) of the LGIP.

Resource Plan shall mean any process authorized or required by Applicable Laws and Regulations for, inter alia, the selection of Generating Facilities.

Resource Solicitation Process shall mean any process authorized or required by Applicable Laws and Regulations for the acquisition of Network Resources.

Scoping Meeting shall mean the meeting between representatives of the Interconnection Customer and Transmission Provider conducted for the purpose of discussing the proposed interconnection request, alternative interconnection options, to exchange information including any transmission data and earlier study evaluations that would be reasonably expected to ~~impact~~affect such interconnection options, to analyze such information, and to determine the potential feasible Points of Interconnection.

Site Control shall mean ~~documentation reasonably demonstrating~~the exclusive land right to develop, construct, operate, and maintain the Generating Facility over the term of expected operation of the Generating Facility. Site Control may be demonstrated by documentation establishing: (1) ownership of, a leasehold interest in, or a right to develop a site ~~for the purpose of constructing~~of sufficient size to construct and operate the Generating Facility; (2) an option to purchase or acquire a leasehold ~~site for such purpose; or (3) an exclusivity or other business relationship between~~interest in a site of

sufficient size to construct and operate the Generating Facility; or (3) any other documentation that clearly demonstrates the right of the Interconnection Customer and the entity having the right to sell, lease or grant Interconnection Customer the right to possess or to exclusively occupy a site for such purpose of sufficient size to construct and operate the Generating Facility. Site Control for any co-located project is demonstrated by a contract or other agreement demonstrating shared land use for all co-located projects that meet the aforementioned provisions of this Site Control definition.

Small Generating Facility shall mean a Generating Facility that has a Generating Facility Capacity of no more than 20 MW.

Stand Alone Network Upgrades shall mean Network Upgrades that are not part of an Affected System that an Interconnection Customer may construct without affecting day-to-day operations of the Transmission System during their construction. Both the Transmission Provider and the Interconnection Customer must agree as to what constitutes Stand Alone Network Upgrades and identify them in Appendix A to the Standard Large Generator Interconnection Agreement. If the Transmission Provider and Interconnection Customer disagree about whether a particular Network Upgrade is a Stand Alone Network Upgrade, the Transmission Provider must provide the Interconnection Customer a written technical explanation outlining why the Transmission Provider does not consider the Network Upgrade to be a Stand Alone Network Upgrade within 15 days of its determination.

Standard Large Generator Interconnection Agreement (LGIA) shall mean the form of interconnection agreement applicable to an Interconnection Request pertaining to a Large Generating Facility that is included in the Transmission Provider's Tariff.

Standard Large Generator Interconnection Procedures (LGIP) shall mean the interconnection procedures applicable to an Interconnection Request pertaining to a Large Generating Facility that are included in the Transmission Provider's Tariff.

Surplus Interconnection Service shall mean any unneeded portion of Interconnection Service established in a Large Generator Interconnection Agreement, such that if Surplus Interconnection Service is utilized, the total amount of Interconnection Service at the Point of Interconnection would remain the same.

Surplus Interconnection Service System Impact Study shall mean an engineering study that evaluates the impact of a proposed request for Surplus Interconnection Service on the safety and reliability of Transmission Provider's Transmission System and, if applicable, an Affected System. The study shall identify and detail the system impacts that would result if the Generating Facility were interconnected without project modifications or system modifications, focusing on the Adverse System Impacts, or to study potential impacts, including but not limited to those identified in the Scoping Meeting as described in the Standard Large Generator Interconnection Procedures.

Surplus Interconnection Service System Impact Study Agreement shall mean the form of agreement contained in Appendix 5 of the Standard Large Generator Interconnection Procedures for conducting a system impact study for purposes of evaluating a request for Surplus Interconnection Service pursuant to Section 38.3 of this LGIP.

System Protection Facilities shall mean the equipment, including necessary protection signal communications equipment, required to protect (1) the Transmission Provider's Transmission System from faults or other electrical disturbances occurring at the Generating Facility and (2) the Generating Facility from faults or other electrical system disturbances occurring on the Transmission Provider's Transmission System or on other delivery systems or other generating systems to which the Transmission Provider's Transmission System is directly connected.

Tariff shall mean the Transmission Provider's Tariff through which open access transmission service and Interconnection Service are offered, as filed with FERC, and as amended or supplemented from time to time, or any successor tariff.

Technological Advancement Request shall mean an Interconnection Customer's request, in the form provided on the Transmission Provider's OASIS to be completed and submitted before executing a Facility Study Agreement, to incorporate a proposed technological advancement pursuant to the Transmission Provider's Technological Change Procedures.

Technological Advancement Study shall mean the study performed by the Transmission Provider, as necessary, to determine whether a proposed Technological Advancement constitutes a Permissible Technological Advancement.

Technological Advancement Study Agreement shall mean the form of agreement contained in Appendix 8 of the Standard Large Generator Interconnection Procedures for conducting the study to determine whether a proposed technological change is a Permissible Technological Advancement.

Transmission Owner shall mean an entity that owns, leases or otherwise possesses an interest in the portion of the Transmission System at the Point of Interconnection and may be a Party to the Standard Large Generator Interconnection Agreement to the extent necessary.

Transmission Provider shall mean the public utility (or its designated agent) that owns, controls, or operates transmission or distribution facilities used for the transmission of electricity in interstate commerce and provides transmission service under the Tariff. The term Transmission Provider should be read to include the Transmission Owner when the Transmission Owner is separate from the Transmission Provider.

Transmission Provider's Interconnection Facilities shall mean all facilities and equipment owned, controlled, or operated by the Transmission Provider from the Point of Change of Ownership to the Point of Interconnection as identified in Appendix A to the Standard Large Generator Interconnection Agreement, including any modifications, additions or upgrades to such facilities and equipment. Transmission Provider's Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

Transmission Provider's Interconnection Facilities may be shared by more than one Generating Facility in a given Cluster Study.

Transmission System shall mean the facilities owned, controlled or operated by the Transmission Provider or Transmission Owner that are used to provide transmission service under the Tariff.

Trial Operation shall mean the period during which Interconnection Customer is engaged in on-site test operations and commissioning of the Generating Facility prior to Commercial Operation.

Withdrawal Penalty shall have the meaning set forth in Section 38.7.1 of this LGIP.

IV. LARGE GENERATION INTERCONNECTION SERVICE

37 Scope and Application

37.1 Application of Standard Large Generator

Interconnection Procedures: Sections 37 through 48 apply to processing an Interconnection Request pertaining to a Large Generating Facility. As provided in Section 49.6 to the Tariff, Small Generating Facilities that are not eligible for the fast track or inverter process will be processed in a single study process with Large Generating Facilities. Additionally, Small Generating Facilities requesting Network Resource Interconnection Service shall be processed under this LGIP. As provided for in Section 51, interconnection requests for Small Generating Facilities may be studied together in Clusters with Interconnection Requests for Large Generating Facilities.

37.2 Comparability: Transmission Provider shall receive, process and analyze all Interconnection Requests in a timely manner as set forth in this LGIP. Transmission Provider will use the same Reasonable Efforts in processing and analyzing Interconnection Requests from all Interconnection Customers, whether the Generating Facilities are owned by Transmission Provider, its subsidiaries or Affiliates or others.

37.3 Base Case Data: Transmission Provider shall maintain base power flow, short circuit and stability databases, including all underlying assumptions, and contingency list on either its OASIS site or a password-protected website, subject to confidentiality provisions in LGIP Section 48.1. In addition, Transmission Provider shall maintain network models and underlying assumptions on either its OASIS site or a password-protected website. Such network models and underlying assumptions should reasonably represent those used during the most recent

interconnection study and be representative of current system conditions. If Transmission Provider posts this information on a password-protected website, a link to the information must be provided on Transmission Provider's OASIS site. Transmission Provider is permitted to require that Interconnection Customers, OASIS site users and password-protected website users sign a confidentiality agreement before the release of commercially sensitive information or Critical Energy Infrastructure Information in the Base Case data. Such databases and lists, hereinafter referred to as Base Cases, shall include all (i) generation projects and (ii) transmission projects, including merchant transmission projects that are proposed for the Transmission System for which a transmission expansion plan has been submitted and approved by the applicable authority.

37.4 No Applicability to Transmission Service: Nothing in this LGIP shall constitute a request for transmission service or confer upon an Interconnection Customer any right to receive transmission service.

37.5 EIM Requirements:

The Interconnection Customer shall have a continuing duty to comply with Attachment T of this Tariff, as applicable.

IV. LARGE GENERATION INTERCONNECTION SERVICE

38 Interconnection Requests and Informational Interconnection Study Requests

38.1 ~~General~~Interconnection Requests: An Interconnection Customer shall submit to Transmission Provider, during a Cluster Request Window, an Interconnection Request in the form of Appendix 1 to this LGIP and a refundable deposit of ~~-\$10,000.~~:

- a. \$75,000 for requests of less than 50 MW;
- b. \$150,000 for requests of 50 MW and greater, but less than 200 MW; or
- c. \$250,000 for requests of 200 MW and greater.

Pursuant to Section 39.2.2, Transmission Provider shall apply the deposit toward the cost of ~~an Interconnection Feasibility Study~~a Cluster Study into which Interconnection Customer is admitted including such Interconnection Customer's individual Facilities Study, and shall be used to process Interconnection Customer's request. For Small Generating Facilities, the appropriate application fee or deposit shall be determined pursuant to Section 49.3 of Transmission Provider's OATT. Interconnection Customer shall submit a separate Interconnection Request for each site and may submit multiple Interconnection Requests for a single site. Interconnection Customer must submit a deposit with each Interconnection Request even when more than one request is submitted for a single site. An Interconnection Request to evaluate one site at two different voltage levels shall be treated as two Interconnection Requests.

At Interconnection Customer's option, Transmission Provider and Interconnection Customer will identify alternative Point(s) of

Interconnection and configurations at the Scoping Meeting to evaluate in this process and attempt to eliminate alternatives in a reasonable fashion given resources and information available. Interconnection Customer will select the definitive Point~~(s)~~ of Interconnection to be studied no later than the execution of the ~~Interconnection Feasibility Study Agreement~~. Cluster Study Agreement. For purposes of clustering Interconnection Service requests, Transmission Provider may make reasonable changes to the requested Point of Interconnection to facilitate efficient interconnection of Interconnection Customers at common points of interconnection. Transmission Provider shall notify Interconnection Customers in writing of any intended changes to the requested Point of Interconnection and the Point of Interconnection shall only change upon mutual agreement.

Transmission Provider shall have a process in place to consider requests for Interconnection Service below the Generating Facility Capacity. These requests for Interconnection Service shall be studied at the level of Interconnection Service requested for purposes of Interconnection Facilities, and Network Upgrades, but may be subject to other studies at the full Generating Facility Capacity to ensure safety and reliability of the system, with the study costs borne by the Interconnection Customer. If after the additional studies are complete, Transmission Provider determines that additional Network Upgrades are necessary, then Transmission Provider must: (1) specify which additional Network Upgrade costs are based on which studies; and (2) provide a detailed explanation of why the additional Network Upgrades are necessary. Any Interconnection Facility and/or Network Upgrade costs required for safety and reliability also will be borne by the Interconnection Customer. Interconnection Customers may be subject to additional control technologies as well as testing and validation of those technologies consistent with Article 6 of the LGIA. The

necessary control technologies and protection systems shall be established in Appendix C of the executed, or requested to be filed unexecuted, LGIA.

38.2 Identification of Types of Interconnection

Services: At the time the Interconnection Request is submitted, Interconnection Customer must request either Energy Resource Interconnection Service or Network Resource Interconnection Service, as described; ~~provided, however, any~~ below. ~~An~~ An Interconnection Customer ~~requesting~~ requesting ~~Network Resource Interconnection Service may also~~ request that it be concurrently studied for ~~Energy Resource Interconnection Service, up to~~ the point when an Interconnection Facility Study Agreement is executed. Interconnection Customer ~~may then elect to proceed with Network Resource~~ Interconnection Service or to proceed under a ~~lower level of interconnection service to the~~ extent that only certain upgrades will be ~~completed.~~ may designate only one type of Interconnection Service for each separate Interconnection Service request. The type of Interconnection Service must be finalized upon submission of the appropriate executed Cluster Study Agreement and may not be changed after the start of the Cluster Study process.

38.2.1 Energy Resource Interconnection Service.

38.2.1.1 The Product. Energy Resource Interconnection Service allows Interconnection Customer to connect the Large Generating Facility to the Transmission System and be eligible to deliver the Large Generating Facility's output using the existing firm or non-firm capacity of the Transmission System on an "as available" basis. Energy Resource Interconnection Service does not in and of itself convey any

right to deliver electricity to any specific customer or Point of Delivery.

38.2.1.2 The Study. The study consists of short circuit/fault duty, steady state (thermal and voltage) and stability analyses. The short circuit/fault duty analysis would identify direct Interconnection Facilities required and the Network Upgrades necessary to address short circuit issues associated with the Interconnection Facilities. The stability and steady state studies would identify necessary upgrades to allow full output of the proposed Large Generating Facility and would also identify the maximum allowed output, at the time the study is performed, of the interconnecting Large Generating Facility without requiring additional Network Upgrades.

38.2.2 Network Resource Interconnection Service.

38.2.2.1 The Product. Transmission Provider must conduct the necessary studies and construct the Network Upgrades needed to integrate the Large Generating Facility (1) in a manner comparable to that in which Transmission Provider integrates its generating facilities to serve native load customers; or (2) in an ISO or RTO with market based congestion management, in the same manner as Network Resources. Network Resource Interconnection Service Allows

Interconnection Customer's Large Generating Facility to be designated as a Network Resource, up to the Large Generating Facility's full output, on the same basis as existing Network Resources interconnected to Transmission Provider's Transmission System, and to be studied as a Network Resource on the assumption that such a designation will occur.

38.2.2.2 The Study. The Interconnection Study for Network Resource Interconnection Service shall assure that Interconnection Customer's Large Generating Facility meets the requirements for Network Resource Interconnection Service and as a general matter, that such Large Generating Facility's interconnection is also studied with Transmission Provider's Transmission System at peak load, under a variety of severely stressed conditions, to determine whether, with the Large Generating Facility at full output, the aggregate of generation in the local area can be delivered to the aggregate of load on Transmission Provider's Transmission System, consistent with Transmission Provider's reliability criteria and procedures. This approach assumes that some portion of existing Network Resources are displaced by the output of Interconnection Customer's Large Generating Facility. Network Resource Interconnection Service in and of itself does not convey

any right to deliver electricity to any specific customer or Point of Delivery. The Transmission Provider may also study the Transmission System under non-peak load conditions. However, upon request by the Interconnection Customer, the Transmission Provider must explain in writing to the Interconnection Customer why the study of non-peak load conditions is required for reliability purposes.

38.3 Utilization of Surplus Interconnection Service.

Transmission Provider must provide a process that allows an Interconnection Customer to utilize or transfer Surplus Interconnection Service at an existing Point of Interconnection. The original Interconnection Customer or one of its affiliates shall have priority to utilize Surplus Interconnection Service. If the existing Interconnection Customer or one of its affiliates does not exercise its priority, then that service may be made available to other potential Interconnection Customers.

38.3.1 Surplus Interconnection Service Requests.

Surplus Interconnection Service requests may be made by the existing Interconnection Customer whose Generating Facility is already interconnected or one of its affiliates. Surplus Interconnection Service requests also may be made by another Interconnection Customer. Transmission Provider shall provide a process for evaluating Interconnection Requests for Surplus Interconnection Service. Studies for Surplus Interconnection Service shall consist of reactive power, short circuit/fault duty, stability analyses, and any other appropriate studies. Steady-state

(thermal/voltage) analyses may be performed as necessary to ensure that all required reliability conditions are studied. If the Surplus Interconnection Service was not studied under off-peak conditions, off-peak steady state analyses shall be performed to the required level necessary to demonstrate reliable operation of the Surplus Interconnection Service. If the original ~~System~~ Impact system impact study or Cluster Study is not available for the Surplus Interconnection Service, both off-peak and peak analysis may need to be performed for the existing Generating Facility associated with the request for Surplus Interconnection Service. The reactive power, short circuit/fault duty, stability, and steady-state analyses for Surplus Interconnection Service will identify any additional Interconnection Facilities and/or Network Upgrades necessary.

Interconnection Customers shall request Surplus Interconnection Service by submitting to the Transmission Provider a completed request in the form of, and in accordance with, Appendix 1 of this LGIP. Surplus Interconnection Service requests shall be processed outside of the interconnection queue. In order to deem a request for Surplus Interconnection Service valid and complete, a deposit of \$10,000 must also be received by the Transmission Provider. After a request for Surplus Interconnection Service has been deemed valid and complete by the Transmission Provider, the Transmission Provider will notify the Interconnection Customer(s) and schedule a scoping meeting within five (5) Business Days.

38.3.2 Surplus Interconnection Service System Impact Study.

38.3.2.1 Within five (5) Business Days following the scoping meeting, Interconnection Customer shall notify the Transmission Provider in writing that the Interconnection Customer wants to proceed with the process for requesting Surplus Interconnection Service. Within five (5) days of the notification that Interconnection Customer wants to proceed with the process for requesting Surplus Interconnection Service, Transmission Provider shall tender to Interconnection Customer the Surplus Interconnection Service System Impact Study Agreement in the form of Appendix ~~35~~ of this LGIP, which includes a good faith estimate of the estimated timeframe for completing the Surplus Interconnection Service System Impact Study. The Surplus Interconnection Service System Impact Study Agreement shall specify that Interconnection Customer is responsible for the actual cost of the Surplus Interconnection Service System Impact Study.

38.3.2.2 Interconnection Customer shall execute the Surplus Interconnection Service System Impact Study Agreement and deliver the executed Surplus Interconnection Service System Impact Study Agreement to Transmission Provider no later than thirty (30) Calendar Days after its receipt.

38.3.2.3 As part of its Surplus Interconnection Service System Impact Study process, the Transmission Provider will evaluate the original ~~Interconnection System Impact Study~~interconnection system impact study, if any, or applicable Cluster Studies, to determine ~~its~~their suitability for use in the evaluation of the request for Surplus Interconnection Service. Inclusive of

any Surplus Interconnection Service System Impact Study(ies) performed to evaluate the existing Interconnection Service and deemed suitable for use in the evaluation of the request for Surplus Interconnection Service, studies for Surplus Interconnection Service shall consist of reactive power, short circuit/fault duty, stability analyses, and any other appropriate studies. Steady-state (thermal/voltage) analyses may be performed as necessary to ensure that all required reliability conditions are studied. If the existing Interconnection Service was not studied under off-peak conditions or such study was not deemed suitable, off-peak steady state analyses shall be performed to the required level necessary to demonstrate reliable operation of the Surplus Interconnection Service. If ~~thean~~ existing ~~Interconnection System Impact~~interconnection system impact study or Cluster Study is not available or deemed suitable for the Surplus Interconnection Service, both off-peak and peak analysis may need to be performed for the existing Generating Facility associated with the request for Surplus Interconnection Service. The studies performed to evaluate a request for Surplus Interconnection Service will identify if any additional Interconnection Facilities and/or Network Upgrades are necessary. If any additional Network Upgrades are necessary, the Surplus Interconnection Request will be denied. Necessary control technologies will also be identified in the studies performed.

38.3.2.4 Transmission Provider shall use Reasonable Efforts to complete the Surplus Interconnection Service System Impact Study within ninety (90) Calendar Days after the receipt of the executed Surplus Interconnection Service

System Impact Study Agreement and any technical data required to complete the study. At the request of Interconnection Customer or at any time Transmission Provider determines that it will not meet the required time frame for completing the Surplus Interconnection Service System Impact Study, Transmission Provider shall notify Interconnection Customer as to the schedule status of the Surplus Interconnection Service System Impact Study. If Transmission Provider is unable to complete the Surplus Interconnection Service System Impact Study within the time period, it shall notify Interconnection Customer and provide an estimated completion date with an explanation of the reasons why additional time is required.

38.3.2.5 Within ten (10) Business Days of providing ~~an~~ Surplus Interconnection Service System Impact Study report to Interconnection Customer, Transmission Provider shall establish a date agreeable to Interconnection Customer to meet to discuss the results of the Surplus Interconnection Service System Impact Study. Such meeting shall be no later than thirty (30) Calendar Days from issuance of the Surplus Interconnection Service System Impact Study ~~Report~~report, unless otherwise mutually agreed upon by the Parties.

38.3.3 Surplus Interconnection Service Agreement.

38.3.3.1 Within thirty (30) Calendar Days after delivery of the Surplus Interconnection Service System Impact Study report, Transmission Provider shall tender (1) a draft Surplus Interconnection Service Agreement to the original Interconnection Customer and the

Surplus Interconnection Service Customer for their execution, and (2) a draft Amended and Restated Large Generator Interconnection Agreement to the original Interconnection Customer that is revised as necessary to reflect the new Surplus Interconnection Service. Transmission Provider is not required to execute an interconnection agreement for Surplus Interconnection Service if the agreement does not meet the definition set forth in the Tariff or if either the original or surplus Interconnection Customer does not agree to the terms of such service, including any requirements that may be identified by the Transmission Provider in the studies for Surplus Interconnection Service.

38.3.3.2 Transmission Provider and Interconnection Customers shall negotiate concerning any disputed provisions of the appendices to the draft Surplus Interconnection Service Agreement for not more than sixty (60) Calendar Days after tender of the draft Surplus Interconnection Service Agreement. If any Interconnection Customer determines that negotiations are at an impasse, it may request termination of the negotiations at any time after tender of the draft Surplus Interconnection Service Agreement and request submission of the unexecuted Surplus Interconnection Service Agreement to FERC or initiate Dispute Resolution procedures pursuant to Section 13.5 of the LGIP. The Surplus Interconnection Service request shall be deemed withdrawn if, within sixty (60) Calendar Days of tender of the draft Surplus Interconnection Service Agreement and unless otherwise agreed by the Parties: (1) the original Interconnection Customer fails to also execute the draft amended and restated LGIA following its execution of the

Surplus Interconnection Service Agreement, or (2) either the original Interconnection Customer or the surplus Interconnection Customer has not (a) executed the Surplus Interconnection Service Agreement, (b) requested filing of an unexecuted Surplus Interconnection Service Agreement, or (c) initiated Dispute Resolution procedures pursuant to Section 13.5 of the LGIP.

38.3.3.3 As soon as practicable, but not later than fifteen (15) Business Days after receiving the two executed originals of the tendered Surplus Interconnection Service Agreement or the request to file an unexecuted Surplus Interconnection Service Agreement, Transmission Provider shall file the executed or unexecuted Surplus Interconnection Service Agreement with FERC. To the extent the Surplus Interconnection Service Agreement is unexecuted, the filing will contain an explanation of any matters as to which Interconnection Customer(s) and Transmission Provider disagree and support for the costs that Transmission Provider proposes to charge to Interconnection Customer(s) under the Surplus Interconnection Service Agreement. An unexecuted Surplus Interconnection Service Agreement should contain terms and conditions deemed appropriate by Transmission Provider for the Interconnection Request. If the Parties agree to proceed with design, procurement, and construction of facilities under the agreed-upon terms of the unexecuted Surplus Interconnection Service Agreement, they may proceed pending FERC action.

38.4 Valid Interconnection Request:

38.4.1 Initiating an Interconnection Request.

~~To initiate an Interconnection Request, Interconnection Customer must submit all of the following: (i) a \$10,000 deposit, (ii) a completed application in the form of Appendix 1, and (iii) demonstration of Site Control or a posting of an additional deposit of \$10,000. Such deposits shall be applied toward any Interconnection Studies pursuant to the Interconnection Request. If An Interconnection Customer demonstrates Site Control within the cure period specified in Section 38.4.3 after submitting~~
wishing to join a Cluster shall submit its Interconnection Request, the additional deposit shall be refundable; otherwise, all such deposit(s), additional and initial, become non refundable. to Transmission Provider within, and no later than the close of the Cluster Request Window. To initiate an Interconnection Request, Interconnection Customer must submit all of the following:

(i) applicable deposit amount, pursuant to Section 38.1,

(ii) a completed application in the form of Appendix 1 (including applicable technical information),

(iii) Site Control demonstration pursuant to Section 38.4.1(iii)(a) or (b) below:

a. Demonstration of actual Site Control. For demonstration of Site Control of Large Generating Facilities: Specifications for acceptable site size for the purposes of demonstrating Site Control are posted on Transmission Provider's OASIS website. Interconnection Customer may propose alternative specifications for site size to those posted on OASIS for Transmission

Provider approval. In the event Transmission Provider and Interconnection Customer cannot reach agreement related to adequacy of site size, Transmission Provider will accept a Professional Engineer (licensed in the state of the Point of Interconnection) stamped site plan drawing that depicts the proposed generation arrangement and specifies the maximum facility output for that arrangement. Demonstration of Site Control for Small Generating Facilities shall be pursuant to Section 49.5.

b. Posting of an additional deposit of \$10,000 in lieu-of Site Control. Deposits paid pursuant to this Section 38.4.1(iii) shall be refunded to the Interconnection Customer upon Commercial Operation or upon withdrawal pursuant to Section 38.7, subject to applicable Withdrawal Penalties.

(iv) Generating Facility size (MW) (and requested Interconnection Service amount if the requested Interconnection Service is less than the Generating Facility Capacity);

(v) One of the following Readiness Milestone Options totaling the entire capacity of the Generating Facility (or requested Interconnection Service amount if the requested Interconnection Service is less than the Generating Facility Capacity).

(a) Executed term sheet (or comparable evidence) related to a contract for sale of (i) the constructed Generating Facility to a load-serving entity or to a

commercial, industrial, or other large end-use customer, (ii) the Generating Facility's energy where the term of sale is not less than five (5) years, or (iii) the Generating Facility's ancillary services if the Generating Facility is an electric storage resource where the term of sale is not less than five (5) years;

(b) Executed contract binding upon the parties for sale of (i) the constructed Generating Facility to a load-serving entity or to a commercial, industrial, or other large end-use customer, (ii) the Generating Facility's energy where the term of sale is not less than five (5) years, or (iii) the Generating Facility's ancillary services if the Generating Facility is an electric storage resource where the term of sale is not less than five (5) years;

(c) Reasonable evidence that the Generating Facility has been selected in a Resource Plan or Resource Solicitation Process by or for a load-serving entity, is being developed by a load-serving entity, or is being developed for purposes of a sale to a commercial, industrial, or other large end-use customer. For a Generating Facility being developed by a load-serving entity: a site-specific purchase order for generating equipment or statement signed by the Interconnection Customer attesting that the facility will be supplied with generating equipment (e.g.

turbines) with a manufacturer's blanket purchase agreement; or

(d) A refundable deposit of \$3,000 per MW of generating capacity proposed in the Interconnection Request.

(vi) A Point of Interconnection.

(vii) Whether the Interconnection Request shall be studied as a Network Resource Interconnection Service or an Energy Resource Interconnection Service, consistent with Section 38.2.

Interconnection Customer shall promptly inform Transmission Provider of any material change to Interconnection Customer's demonstration of Site Control under Section 38.4.1(iii) or its satisfaction of a Readiness Milestone Option as selected under Section 38.4.1(v) or Section 43.1, as applicable. Upon Transmission Provider determining separately that Interconnection Customer no longer satisfies Site Control or a Readiness Milestone Option, Transmission Provider shall give Interconnection Customer ten (10) Business Days to demonstrate satisfaction with the applicable requirement to Transmission Provider's satisfaction. Absent such demonstration, Transmission Provider will deem the subject Interconnection Request withdrawn.

The expected In-Service Date of the new Large Generating Facility or increase in capacity of the existing Generating Facility shall be no more than the process window for the regional expansion planning period (or in the absence of a regional planning process, the process window for Transmission Provider's expansion planning period) not to exceed seven (7) years from the date the

Interconnection Request is received by Transmission Provider, unless Interconnection Customer demonstrates that engineering, permitting and construction of the new Large Generating Facility or increase in capacity of the existing Generating Facility will take longer than the regional expansion planning period. The In-Service Date may succeed the date the Interconnection Request is received by Transmission Provider by a period up to ten (10) years, or longer where Interconnection Customer and Transmission Provider agree, such agreement not to be unreasonably withheld.

38.4.2 Acknowledgment of Interconnection Request.

Transmission Provider shall acknowledge receipt of the Interconnection Request within five (5) Business Days of receipt of the request and attach a copy of the received Interconnection Request to the acknowledgement.

38.4.3 Deficiencies in Interconnection Request.

An Interconnection Request will not be considered to be a valid request until all items in Section 38.4.1 have been received by Transmission Provider. If an Interconnection Request fails to meet the requirements set forth in Section 38.4.1, Transmission Provider shall notify Interconnection Customer within five (5) Business Days of receipt of the initial Interconnection Request of the reasons for such failure and that the Interconnection Request does not constitute a valid request. Interconnection Customer shall provide Transmission Provider the additional requested information needed to constitute a valid request within ten (10) Business Days after receipt of such notice but no later than the close of the Cluster

Request Window. At any time, if Transmission Provider identifies issues with technical data provided by Interconnection Customer, Interconnection Customer and Transmission Provider shall work expeditiously and in good faith to remedy any data issues. Failure by Interconnection Customer to comply with this Section 38.4.3 shall be treated in accordance with Section 38.7.

Transmission Provider shall determine if the information contained in the Interconnection Request is sufficient to start the Cluster Study by the close of the Customer Engagement Window.

38.4.4 Scoping Meeting.

~~Within ten (10) Business Days after receipt of a valid Interconnection Request~~During the Customer Engagement Window, Transmission Provider shall ~~establish a date agreeable to~~hold a Scoping Meeting with all Interconnection Customers whose valid Interconnection Requests were received in that Cluster Request Window. If requested by an Interconnection Customer~~for the Scoping Meeting, and such date shall be no later than thirty (30) Calendar~~Transmission Provider shall also hold individual customer-specific Scoping Meetings, which must be requested no later than fifteen (15) Business Days~~from receipt of the valid Interconnection Request, unless otherwise mutually agreed upon by the Parties,~~after the close of the Cluster Request Window.

The purpose of the Scoping Meeting shall be to discuss alternative interconnection options, to exchange information including any transmission data that would reasonably be expected to impact such

interconnection options, to discuss the Cluster Area materials posted to OASIS pursuant to Section 42.4, and to analyze such information~~and to determine the potential feasible Points of Interconnection~~. Transmission Provider and Interconnection Customer will bring to the meeting such technical data, including, but not limited to: (i) general facility loadings, (ii) general instability issues, (iii) general short circuit issues, (iv) general voltage issues, and (v) general reliability issues as may be reasonably required to accomplish the purpose of the meeting. Transmission Provider and Interconnection Customer will also bring to the meeting personnel and other resources as may be reasonably required to accomplish the purpose of the meeting in the time allocated for the meeting. ~~On the basis of the meeting, Interconnection Customer shall designate its Point of Interconnection, pursuant to Section 41.1, and one or more available alternative Point(s) of Interconnection.~~ The duration of the meeting shall be sufficient to accomplish its purpose.

38.5 OASIS Posting:

38.5.1 Transmission Provider will maintain on its OASIS a list of all Interconnection Requests. The list will identify, for each Interconnection Request: (i) the maximum summer and winter megawatt electrical output; (ii) the location by county and state; (iii) the station or transmission line or lines where the interconnection will be made; (iv) the projected In-Service Date; (v) the status of the Interconnection Request, including Queue Position; (vi) the type of Interconnection Service being requested; ~~and~~ (vii) the availability of any studies related to the Interconnection Request; (viii) the date

of the Interconnection Request; (ix) the type of Generating Facility to be constructed (combined cycle, base load or combustion turbine and fuel type); and (x) for Interconnection Requests that have not resulted in a completed interconnection, an explanation as to why it was not completed. Except in the case of an Affiliate, the list will not disclose the identity of Interconnection Customer until Interconnection Customer executes an LGIA or requests that Transmission Provider file an unexecuted LGIA with FERC. Before holding a Scoping Meeting with its Affiliate, Transmission Provider shall post on OASIS an advance notice of its intent to do so. Transmission Provider shall post to its OASIS site any deviations from the study timelines set forth herein. ~~Interconnection Study reports and Optional~~ Interconnection Study reports shall be posted to Transmission Provider's OASIS site subsequent to the meeting between Interconnection Customer and Transmission Provider to discuss the applicable study results. Transmission Provider shall also post any known deviations in the Large Generating Facility's In-Service Date.

38.5.2 Requirement to Post Interconnection Study Metrics.

Transmission Provider will maintain on its OASIS or its website summary statistics related to processing Interconnection Studies pursuant to Interconnection Requests, updated quarterly. If Transmission Provider posts this information on its website, a link to the information must be provided on Transmission Provider's OASIS site. For each calendar quarter, Transmission Provider must calculate and post the information detailed in ~~sections~~Sections 38.5.2.1 through 38.5.2.4.

38.5.2.1 ~~Interconnection Feasibility Studies processing time.~~ Cluster Study Processing Time.

(A) Number of Interconnection Requests that had ~~Interconnection Feasibility~~ Cluster Studies completed within Transmission Provider's coordinated region during the reporting quarter,

(B) Number of Interconnection Requests that had ~~Interconnection Feasibility~~ Cluster Studies completed within Transmission Provider's coordinated region during the reporting quarter that were completed more than ~~45~~ one hundred fifty (150) Calendar Days after ~~receipt by Transmission Provider of the Interconnection Customer's executed Interconnection Feasibility Study Agreement~~ commencement of the Cluster Study,

(C) At the end of the reporting quarter, the number of active valid Interconnection Requests with ongoing incomplete ~~Interconnection Feasibility Studies where such Interconnection Requests had executed Interconnection Feasibility Study Agreements received by Transmission Provider more than 45 Calendar Days before the reporting quarter end,~~ Cluster Studies one hundred fifty (150) Calendar

Days after commencement of the Cluster Study,

(D) Mean time (in days), ~~Interconnection Feasibility Cluster~~ Studies completed within Transmission Provider's coordinated region during the reporting quarter, from the ~~date when Transmission Provider received the executed Interconnection Feasibility Study Agreement~~commencement of the Cluster Study to the date when Transmission Provider provided the completed ~~Interconnection Feasibility Cluster~~ Study to the Interconnection Customer,

(E) Percentage of ~~Interconnection Feasibility Cluster~~ Studies exceeding ~~45~~one hundred fifty (150) Calendar Days to complete this reporting quarter, calculated as the sum of 38.5.2.1(B) plus 38.5.2.1(C) divided by the sum of 38.5.2.1(A) plus 38.5.2.1(C)).

~~38.5.2.2 Interconnection System Impact Studies Processing Time.~~

~~(A) Number of Interconnection Requests that had Interconnection System Impact Studies completed within Transmission Provider's coordinated region during the reporting quarter,~~

~~(B) Number of Interconnection Requests that had Interconnection System Impact~~

~~Studies completed within Transmission Provider's coordinated region during the reporting quarter that were completed more 90 Calendar Days after receipt by Transmission Provider of the Interconnection Customer's executed Interconnection System Impact Study Agreement,~~

~~(C) At the end of the reporting quarter, the number of active valid Interconnection Requests with ongoing incomplete System Impact Studies where such Interconnection Requests had executed Interconnection System Impact Study Agreements received by Transmission Provider more than 90 Calendar Days before the reporting quarter end,~~

~~(D) Mean time (in days), Interconnection System Impact Studies completed within Transmission Provider's coordinated region during the reporting quarter, from the date when Transmission Provider received the executed Interconnection System Impact Study Agreement to the date when Transmission Provider provided the completed Interconnection System Impact Study to the Interconnection Customer,~~

~~(E) Percentage of Interconnection System Impact Studies exceeding 90 Calendar Days to complete this reporting quarter, calculated as the sum of 38.5.2.2(B) plus 38.5.2.2(C) divided by the sum of~~

~~38.5.2.2(A) plus~~
~~38.5.2.2(C)).~~ **38.5.2.3**

**Interconnection Facilities
Studies Processing Time.**

(A) Number of Interconnection Requests that had Interconnection Facilities Studies that are completed within Transmission Provider's coordinated region during the reporting quarter,

(B) Number of Interconnection Requests that had Interconnection Facilities Studies that are completed within Transmission Provider's coordinated region during the reporting quarter that were completed more 90 or 180 Calendar Days (study duration depends on Interconnection Customer's selection on Facilities Study Agreement) after receipt by Transmission Provider of the Interconnection Customer's executed Interconnection Facilities Study Agreement,

(C) At the end of the reporting quarter, the number of active valid Interconnection Service requests with ongoing incomplete Interconnection Facilities Studies where such Interconnection Requests had executed Interconnection Facilities Studies Agreement received by Transmission Provider more than 90 or 180 Calendar Days (study duration depends on Interconnection Customer's selection on

Facilities Study Agreement)
before the reporting quarter
end,

(D) Mean time (in days), for
Interconnection Facilities
Studies completed within
Transmission Provider's
coordinated region during the
reporting quarter, calculated
from the date when Transmission
Provider received the executed
Interconnection Facilities Study
Agreement to the date when
Transmission Provider provided
the completed Interconnection
Facilities Study to the
Interconnection Customer,

(E) Percentage of delayed
Interconnection Facilities
Studies this reporting quarter,
calculated as the sum
of 38.5.2.2(B) plus 38.5.2.2(C)
divided by the sum of
38.5.2.2(A) plus 38.5.2.2(C)).

~~38.5.2.3(B) plus 38.5.2.3(C) divided by
the sum of 38.5.2.3(A) plus
38.5.2.3(C)).~~ **38.5.2.4**

**Interconnection Service
Requests Withdrawn from
Interconnection Queue.**

(A) Number of Interconnection
Requests withdrawn from
Transmission Provider's
interconnection queue during the
reporting quarter,

(B) Number of Interconnection
Requests withdrawn from
Transmission Provider's
interconnection queue during the
reporting quarter before

completion of any interconnection studies or execution of any interconnection study agreements,

(C) Number of Interconnection Requests withdrawn from Transmission Provider's interconnection queue during the reporting quarter before completion of ~~an Interconnection System Impact~~ a Cluster Study,

(D) Number of Interconnection Requests withdrawn from Transmission Provider's interconnection queue during the reporting quarter before completion of an Interconnection Facilities Study,

(E) Number of Interconnection Requests withdrawn from Transmission Provider's interconnection queue after execution of a generator interconnection agreement or Interconnection Customer requests the filing of an unexecuted, new interconnection agreement,

(F) Mean time (in days), for all withdrawn Interconnection Requests, from the date when the request was determined to be valid to when Transmission Provider received the request to withdraw from the queue.

38.5.3 Transmission Provider is required to post on OASIS or its website the measures in paragraph 38.5.2.1(A) through paragraph ~~38.5.2.4~~ 38.5.2.3(F) for each calendar quarter within 30 Calendar Days

of the end of the calendar quarter. Transmission Provider will keep the quarterly measures posted on OASIS or its website for three calendar years with the first required report to be in the first quarter of 2020. If Transmission Provider retains this information on its website, a link to the information must be provided on Transmission Provider's OASIS site.

38.5.4 In the event that any of the values calculated in paragraphs 38.5.2.1(E), or 38.5.2.2(~~E~~) ~~or~~ 38.5.2.3(E) exceeds 25 percent for two consecutive calendar quarters, Transmission Provider will have to comply with the measures below for the next four consecutive calendar quarters and must continue reporting this information until Transmission Provider reports four consecutive calendar quarters without the values calculated in 38.5.2.1(E) ~~or~~ or 38.5.2.2(~~E~~) ~~or~~ 38.5.2.3(E) exceeding 25 percent for two consecutive calendar quarters:

(i) Transmission Provider must submit a report to the Commission describing the reason for each study or group of clustered studies pursuant to an Interconnection Request that exceeded its deadline (i.e., ~~45~~150, 90 or 180 days) for completion (excluding any allowance for Reasonable Efforts). Transmission Provider must describe the reasons for each study delay and any steps taken to remedy these specific issues and, if applicable, prevent such delays in the future. The report must be filed at the Commission within 45 Calendar Days of the end of the calendar quarter.

(ii) Transmission Provider shall aggregate the total number of employee-hours and third party consultant hours expended

towards interconnection studies within its coordinated region that quarter and post on OASIS or its website. If Transmission Provider posts this information on its website, a link to the information must be provided on Transmission Provider's OASIS site. This information is to be posted within 30 Calendar Days of the end of the calendar quarter.

38.6 Coordination with Affected Systems: Transmission Provider will coordinate the conduct of any studies required to determine the impact of the Interconnection Request on Affected Systems with Affected System Operators and, if possible, include those results (if available) in its applicable Interconnection Study within the time frame specified in this LGIP. Transmission Provider will include such Affected System Operators in all meetings held with Interconnection Customer as required by this LGIP. Interconnection Customer will cooperate with Transmission Provider in all matters related to the conduct of studies and the determination of modifications to Affected Systems. A Transmission Provider which may be an Affected System shall cooperate with Transmission Provider with whom interconnection has been requested in all matters related to the conduct of studies and the determination of modifications to Affected Systems. It is the responsibility of the Affected System Owner to provide the requirements or potential impediments to providing the requested interconnection service, including a preliminary indication of the cost and length of time that would be necessary to (i) complete any interconnection studies and (ii) construct any necessary Interconnection Facilities and Network Upgrades needed to reliably interconnect at the requested service level.

38.7 Withdrawal: Interconnection Customer may withdraw its Interconnection Request at any time by written notice of such withdrawal to Transmission Provider. In addition, if Interconnection

Customer fails to adhere to all requirements of this LGIP, except as provided in Section 48.5 (Disputes), Transmission Provider shall deem the Interconnection Request to be withdrawn and shall provide written notice to Interconnection Customer of the deemed withdrawal and an explanation of the reasons for such deemed withdrawal. Upon receipt of such written notice, Interconnection Customer shall have fifteen (15) Business Days in which to either respond with information or actions that cures the deficiency or to notify Transmission Provider of its intent to pursue Dispute Resolution.

Withdrawal shall result in the loss of Interconnection Customer's Queue Position, including any placement in a particular Cluster. If an Interconnection Customer disputes the withdrawal and loss of its Queue Position, then during Dispute Resolution, Interconnection Customer's Interconnection Request is eliminated from the queue until such time that the outcome of Dispute Resolution would restore its Queue Position. An Interconnection Customer that withdraws or is deemed to have withdrawn its Interconnection Request shall pay to Transmission Provider all costs that Transmission Provider prudently incurs with respect to that Interconnection Request prior to Transmission Provider's receipt of notice described above. Interconnection Customer must pay all monies due to Transmission Provider before it is allowed to obtain any Interconnection Study data or results.

~~Transmission Provider shall (i) update the OASIS Queue Position posting and (ii) refund to Interconnection Customer any portion of Interconnection Customer's deposit or study payments that exceeds the costs that Transmission Provider has incurred, including interest calculated in accordance with section 35.19a(a)(2) of FERC's regulations. In the event of such withdrawal, Transmission Provider, subject to the confidentiality provisions of Section 48.1, shall provide, at Interconnection~~

~~Customer's request, all information that Transmission Provider developed for any completed study conducted up to the date of withdrawal of the Interconnection Request.~~ In the case of a withdrawal, Transmission Provider shall:

(i) update OASIS as appropriate, including any Queue Position changes;

(ii) impose the applicable Withdrawal Penalty described in Section 38.7.1, if any; and

(iii) issue any refund to Interconnection Customer pursuant to Section 48.3.2.

In the event of such withdrawal, Transmission Provider, subject to the confidentiality provisions of Section 48.1, shall provide, at Interconnection Customer's request, all information that Transmission Provider developed for any completed study conducted up to the date of withdrawal of the Interconnection Request.

38.7.1 Withdrawal Penalty. Except as provided in Attachment W of Transmission Provider's Tariff, an **Interconnection Customer** shall be subject to a penalty ("Withdrawal Penalty") if it withdraws its Interconnection Request or the Generating Facility does not otherwise reach Commercial Operation unless (1) the withdrawal does not negatively affect the timing or cost of other projects within the same Cluster as determined by Transmission Provider; (2) the Interconnection Customer withdraws after receiving the most recent Cluster Study Report and the costs assigned to the Interconnection Request identified in that report have increased by more than twenty-five percent (25%) compared to costs identified in the previous Cluster Study Report; (3) the Interconnection Customer withdraws after receiving the individual Facilities Study report and the costs

assigned to the Interconnection Request identified in that report have increased by more than 100 percent compared to costs identified in the most recent Cluster Study Report. For the avoidance of doubt, Small Generating Facilities participating in the Cluster Study process pursuant to Section 42 shall not be subject to Withdrawal Penalties.

38.7.1.1 Calculation of the Withdrawal Penalty. If the withdrawing Interconnection Customer has demonstrated any of the Readiness Milestone Options in Sections 38.4.1(v)(a)-(c) and is withdrawing prior to executing an LGIA, the Interconnection Customer shall be charged one (1) times its actual allocated cost of all studies performed up until that point.

If the withdrawing Interconnection Customer only demonstrated the Readiness Milestone Option in Section 38.4.1(v)(d) and is withdrawing prior to executing an LGIA, that Interconnection Customer's Withdrawal Penalty shall be as follows:

(a) If Interconnection Customer withdraws after receipt of a Cluster Study Report, the Interconnection Customer shall be charged two (2) times of its actual allocated cost of all studies performed for Interconnection Customers in the Cluster up until that point, regardless of any previous Withdrawal Penalty revenues received. This amount shall be capped at one (1) million dollars.

(b) If Interconnection Customer withdraws after receipt of any applicable restudy reports issued pursuant to Section 42.4, the Interconnection Customer shall be charged three (3) times of its actual

allocated cost of all studies performed for Interconnection Customers in the Cluster up until that point, regardless of any previous Withdrawal Penalty revenues received. This amount shall be capped at one and one half (1.5) million dollars.

(c) If Interconnection Customer withdraws after receipt of the individual Facility Study report issued pursuant to Section 43, the Interconnection Customer shall be charged five (5) times of its actual allocated cost of all studies performed for Interconnection Customers in the Cluster up until that point, regardless of any previous Withdrawal Penalty revenues received. This amount shall be capped at two (2) million dollars.

The Withdrawal Penalty for any Interconnection Customer that, before achieving Commercial Operation, withdraws after executing an LGIA shall be nine (9) times of its actual allocated cost of all studies performed for Interconnection Customers in the Cluster up until that point, regardless of any previous Withdrawal Penalty revenues received. In the event that the Interconnection Customer suspends its interconnection agreement, the Interconnection Customer shall be obligated to pay for costs associated with any studies or restudies required as a result of the suspension of the interconnection agreement, including any restudies associated with any affected lower-queued customers.

38.7.1.2 Distribution of the Withdrawal Penalty.
Any Withdrawal Penalty revenues shall be used to fund generation interconnection studies, including individual Interconnection Facility Studies. Withdrawal Penalty revenues shall first be applied, in the form of a bill credit, to not-yet-invoiced study costs for other

Interconnection Customers in the same Cluster, and to the extent that such studies are fully credited, shall be applied to study costs of future Clusters in queue order. Withdrawn Interconnection Customers shall not receive a bill credit associated with Withdrawal Penalty revenues. Distribution of Withdrawal Penalty revenues to a specific study shall not exceed the total actual study costs. Allocation of Withdrawal Penalty revenues within a Cluster to a specific Interconnection Customer shall be (1) fifty percent (50%) on a per capita basis based on number of Interconnection Requests in the applicable Cluster; and (2) fifty percent (50%) to Interconnection Customers on a pro-rata basis based on requested megawatts included in the applicable Cluster. Distribution of Withdrawal Penalty revenue associated with Section 38.7.1.1(c) shall not be distributed to the remaining Interconnection Customers in that Cluster until all Interconnection Customers in that Cluster have reached Commercial Operation and thereafter shall be distributed as described above. Transmission Provider shall not change the distribution of Withdrawal Penalty revenue without authorization by the Commission. Transmission Provider shall post the Withdrawal Penalty balance on its OASIS site.

38.8 Identification of Contingent Facilities.

Transmission Provider uses a ~~serial-queue-order study~~Cluster Study methodology for processing Interconnection Requests, which includes starting each interconnection study with the baseline assumption that the following are in-service: (i) generating facilities that are directly interconnected to the Transmission System; (ii) generating facilities that are interconnected to Affected Systems and may have an impact on the Interconnection Request; (iii) generating facilities that have a pending higher queued Interconnection Request to interconnect to the Transmission System and their associated Interconnection Facilities and Network Upgrade requirements; (iv) generating facilities that

have no Queue Position but have executed an interconnection agreement, or requested that an unexecuted interconnection agreement be filed with FERC, and their associated Interconnection Facilities and Network Upgrades; (v) pending and granted requests for transmission service and their associated facilities or upgrade requirements to the extent they have an impact on the Interconnection Request; and (vi) Transmission Provider's transmission expansion plan components, or the transmission expansion plan components of third-party transmission providers, to the extent they have an impact on the Interconnection Request. Transmission Provider will identify, consistent with Good Utility Practice, the interconnection study's assumed, unbuilt facilities and upgrades upon which the Interconnection Request's costs, timing, and study findings are dependent, and if delayed or not built, could cause a need for Re-Studies of the Interconnection Request or a reassessment of the Interconnection Request's Interconnection Facilities and/or Network Upgrades and/or the Interconnection Request's costs and timing. This set of facilities and upgrades will be listed as the Contingent Facilities in an appendix to the Interconnection Request's System Impact Study report, which will include: (a) a description of each Contingent Facility; and (b) the Interconnection Request, transmission service request or planned project for which the Contingent Facility was initially required. If requested by the Interconnection Customer, and if readily available and not commercially sensitive, Transmission Provider will also provide an estimate of the costs of and the in-service date for each Contingent Facility, which may be subject to later updates if a Contingent Facility's estimated costs and in-service dates change.

38.9. Informational Interconnection Study Requests.
Interconnection Customers evaluating different options (such as different sizes, sites, or voltages) are encouraged but not required to use

the Informational Interconnection Study Process
in Section 41 before entering the Cluster Study
process.

IV. LARGE GENERATION INTERCONNECTION SERVICE

39 Interconnection Request Evaluation Process

Once an Interconnection Customer has submitted a valid Interconnection Request pursuant to Section 38.4, such Interconnection Request shall be admitted into Transmission Provider's queue for further processing pursuant to the following procedures.

39.1 Queue Position.

~~39.1 General:~~ 39.1.1 Assignment of Queue Position.

Transmission Provider shall assign a Queue Position as follows: the Queue Position within the queue shall be assigned based upon the date and time of receipt of ~~the valid Interconnection Request; provided that, if the sole reason an Interconnection Request is not valid is the lack of required information on the application form, and Interconnection Customer provides such information in accordance with Section 38.4.3,~~ then Transmission Provider shall assign Interconnection Customer a Queue Position based on the date the application form was originally filed. ~~Moving a Point of Interconnection shall result in a lowering of Queue Position if it is deemed a Material Modification under Section 39.4.3.~~ all items required pursuant to the provisions of Section 38.4. There is no queue for Informational Interconnection Studies.

~~The Queue Position of each Interconnection Request will be used to determine the order of performing the Interconnection Studies and determination of cost responsibility for the facilities necessary to accommodate the Interconnection Request. A higher queued~~ 39.1.2 Higher Queue Position. A higher Queue Position assigned to an Interconnection Request is one that has been placed "earlier" in the queue in relation to another Interconnection

Request that is ~~lower queued. Transmission Provider may allocate~~ assigned a lower Queue Position. All requests studied in a single Cluster shall be considered equally queued but Clusters initiated earlier in time shall be considered to have a higher Queue Position than Clusters initiated later. The Queue Position of an Interconnection Request shall have no bearing on the allocation of the cost of the common upgrades ~~for clustered Interconnection Requests without regard to Queue Position.~~

~~**39.2 Clustering:** At Transmission Provider's option, Interconnection Requests may be studied serially or in clusters for the purpose of the Interconnection System Impact Study. Clustering shall be implemented on the basis of Queue Position. If Transmission Provider elects to study Interconnection Requests using Clustering, all Interconnection Requests received within a period not to exceed one hundred and eighty (180) Calendar Days, hereinafter referred to as the "Queue Cluster Window" shall be studied together without regard to the nature of the underlying Interconnection Service, whether Energy Resource Interconnection Service or Network Resource Interconnection Service. The deadline for completing all Interconnection System Impact Studies for which an Interconnection System Impact Study Agreement has been executed during a Queue Cluster Window shall be in accordance with Section 42.4, for all Interconnection Requests assigned to the same Queue Cluster Window. Transmission Provider may study an Interconnection Request separately to the extent warranted by Good Utility Practice based upon the electrical remoteness of the proposed Large Generating Facility. Clustering Interconnection System Impact Studies shall be conducted in such a manner to ensure the efficient implementation of the applicable regional transmission expansion plan in light of the Transmission System's capabilities at the time of each study. identified in the applicable Cluster Study (such costs will be allocated among~~

Interconnection Requests in accordance with Section 39.2.3). Moving a Point of Interconnection shall result in a loss of Queue Position if it is deemed a Material Modification under Section 39.4.3.

39.2. General Study Process.

Cluster Studies performed within the Interconnection Study process shall be conducted in such a manner to ensure the efficient implementation of the applicable regional transmission expansion plan in light of the Transmission System's capabilities at the time of each study.

39.2.1 Cluster Request Windows.

Transmission Provider shall accept Interconnection Requests during a forty-five (45) Calendar Day period, hereinafter referred to as the "Cluster Request Window." The initial Cluster Request Window shall open for Interconnection Requests beginning April 1 following commencement of the transition process set out in Attachment W to this Tariff and successive Cluster Request Windows shall open annually every April 1 thereafter.

39.2.2 Study Cost Allocation.

Transmission Provider shall determine each Interconnection Customer's share of the costs of a Cluster Study by allocating: (1) fifty percent (50%) of the applicable study costs to Interconnection Customers on a per capita basis based on number of Interconnection Requests included in the applicable Cluster; and (2) fifty percent (50%) of the applicable study costs to Interconnection Customers on a pro-rata basis based on requested megawatts included in the applicable Cluster. For example, the cost of a Cluster Study

consisting of a 100 MW request and a 900 MW request would be allocated 30% to the 100 MW request and 70% to the 900 MW request.

Any refunds of deposits paid in excess of Interconnection Customer costs allocated pursuant to this Section 39.2.2 shall be issued in accordance with Section 48.3.

39.2.3 Transmission Provider's Interconnection Facilities and Network Upgrade Cost Allocation. Interconnection Customer funding of Network Upgrades are eligible for credits as provided in Article 11.4 of the LGIA. Notwithstanding Section 38.1, for Transmission Provider's Interconnection Facilities and Network Upgrades identified in Cluster Studies, Transmission Provider shall calculate each Interconnection Customer's share of costs in the manner set forth below. If a Cluster Study includes one or more Cluster Areas, such costs shall be calculated and allocated among Interconnection Customers within the same Cluster Area. Interconnection Customer shall be responsible for funding the costs of any facilities identified by Transmission Provider in such Interconnection Customer's individual Facilities Study report.

~~The Queue Cluster Window shall have a fixed time interval based on fixed annual opening and closing dates. Any changes to the established Queue Cluster Window interval and opening or closing dates shall be announced with a posting on Transmission Provider's OASIS beginning at least one hundred and eighty (180) Calendar Days in advance of the change and continuing thereafter through the end date of the first Queue Cluster Window that is to be modified.~~

a) Station equipment Network Upgrades, including all switching stations, shall

be allocated based on the number of Generating Facilities interconnecting at an individual station on a per capita basis (i.e. on a per Interconnection Request basis). If multiple Interconnection Customers are connecting to the Transmission Provider's System through a single Interconnection Customer's Interconnection Facility (i.e. sharing the Interconnection Customer's Interconnection Facility connecting to the Transmission Provider's Interconnection Facility(ies)), those Interconnection Customers shall be considered one Interconnection Customer for the per capita calculation described in the preceding sentence. Shared Transmission Provider's Interconnection Facilities shall be allocated based on the number of Generating Facilities sharing that Transmission Provider's Interconnection Facility on a per capita basis.

b) The funding responsibility for Network Upgrades other than those identified in Section 39.2.3(a) shall be as follows: Interconnection Customers within a Cluster Study that have requested Energy Resource Interconnection Service shall bear their allocable share of the cost of Network Upgrades necessary to provide such service. Interconnection Customers within a Cluster Study that have requested Network Resource Interconnection Service shall bear their allocable share of the cost of Network Upgrades necessary to provide such service. Such allocation shall be based on the proportional capacity of each individual Generating Facility in the Cluster Studies requiring such Network Upgrades in accordance with the

iterative process provided in Section 42.3.

- c) Costs of Transmission Provider's Interconnection Facilities are directly assigned to the Interconnection Customer(s) using such facilities.
- d) Notwithstanding any other provision of this Section 39.2.3, no Interconnection Customer shall be responsible for any Network Upgrade costs identified pursuant to this Section if such Interconnection Customer's Interconnection Request individually represents one (1) percent or less of the total requested megawatts included in the applicable Cluster.

39.3 Transferability of Queue Position: An Interconnection Customer may transfer its Queue Position to another entity only if such entity acquires the specific Generating Facility identified in the Interconnection Request and the Point of Interconnection does not change.

39.4 Modifications: Interconnection Customer shall submit to Transmission Provider, in writing, modifications to any information provided in the Interconnection Request. Interconnection Customer shall retain its Queue Position if the modifications are in accordance with Sections 39.4.1, 39.4.2 or ~~39.4.56~~, 39.4.6, or are determined not to be Material Modifications pursuant to Section 39.4.3.

Notwithstanding the above, during the course of the Interconnection Studies, either Interconnection Customer or Transmission Provider may identify changes to the planned interconnection that may improve the costs and benefits (including reliability) of the interconnection, and the ability of the proposed change to accommodate the Interconnection

Request. ~~To~~Subject to the forgoing sentence, and provided, however, they do not result in a Material Modification, to the extent the identified changes are acceptable to Transmission Provider and Interconnection Customer and potentially impacted Interconnection Customers in the same Cluster, such acceptance not to be unreasonably withheld, Transmission Provider shall modify the Point of Interconnection and/or configuration in accordance with such changes and proceed with any re-studies necessary to do so in accordance with Section ~~41.4, Section 42.6~~42.5(f) and Section 43.5 as applicable and Interconnection Customer shall retain its Queue Position.

39.4.1 Prior to the return of the executed ~~Interconnection System Impact~~Cluster Study Agreement to Transmission Provider, modifications permitted under this Section shall include specifically: (a) a decrease of up to 60 percent of electrical output (MW) of the proposed project, through either (1) a decrease in plant size or (2) a decrease in Interconnection Service level (consistent with the process described in Section ~~3.1~~38.1) accomplished by applying Transmission Provider-approved injection-limiting equipment; (b) modifying the technical parameters associated with the Large Generating Facility technology or the Large Generating Facility step-up transformer impedance characteristics; and (c) modifying the interconnection configuration. For plant increases, the incremental increase in plant output will go ~~to~~in the ~~end of the queue~~next Cluster Study Window for the purposes of cost allocation and study analysis.

39.4.2 Prior to the return of the executed Interconnection Facilities Study Agreement to Transmission Provider, the modifications permitted under this Section

shall include specifically: (a) additional 15 percent decrease of electrical output of the proposed project through either (1) a decrease in plant size (MW) or (2) a decrease in Interconnection Service level (consistent with the process described in Section 38.1) accomplished by applying Transmission Provider-approved injection-limiting equipment; (b) Large Generating Facility technical parameters associated with modifications to Large Generating Facility technology and transformer impedances; provided, however, the incremental costs associated with those modifications are the responsibility of the requesting Interconnection Customer; and (c) a Permissible Technological Advancement for the Large Generating Facility after the submission of the Interconnection Request. Section 39.4.6 specifies a separate technological change procedure including the requisite information and process that will be followed to assess whether the Interconnection Customer's proposed technological advancement under Section 39.4.2(c) is a Material Modification. Section 36 contains a definition of Permissible Technological Advancement.

39.4.3 Prior to making any modification other than those specifically permitted by Sections 39.4.1, 39.4.2, and 39.4.6, Interconnection Customer may first request that Transmission Provider evaluate whether such modification is a Material Modification. In response to Interconnection Customer's request, Transmission Provider shall evaluate the proposed modifications prior to making them and inform Interconnection Customer in writing of whether the modifications would constitute a Material Modification. Any change to the Point of Interconnection, except those deemed

acceptable under Sections 38.1, 39.4.1, ~~41.1, 42.2~~ or so allowed elsewhere, shall constitute a Material Modification. Interconnection Customer may then withdraw the proposed modification or proceed with a new Interconnection Request for such modification.

- 39.4.4** Upon receipt of Interconnection Customer⁺'s request for modification permitted under this Section 39.4, Transmission Provider shall commence and perform any necessary additional studies as soon as practicable, but in no event shall Transmission Provider commence such studies later than thirty (30) Calendar Days after receiving notice of Interconnection Customer⁺'s request. Any additional studies resulting from such modification shall be done at Interconnection Customer⁺'s cost.
- 39.4.5** Extensions of less than three (3) cumulative years in the Commercial Operation Date of the Large Generating Facility to which the Interconnection Request relates are not material and should be handled through construction sequencing. For purposes of this Section, the Commercial Operation Date reflected in the initial Interconnection Request shall be used. Such cumulative extensions are inclusive of extensions requested after execution of the LGIA by Interconnection Customer.
- 39.4.6 Technological Change Procedure.**

39.4.6.1 Interconnection Customer Technological Advancement Request. (a) At any time after the submission of an Interconnection Request, but before the execution of an Interconnection Facility

Study Agreement by Interconnection Customer, an Interconnection Customer may submit a written request to include additional or substituted technological components for its Large Generating Facility that differ from the description of the Large Generating Facility in its Interconnection Request. Such request shall be submitted on the request template format provided by Transmission Provider on its OASIS site. As required in the request template, Interconnection Customer's request must identify the specific technological advancement that it seeks to adopt and provide all information necessary to support Transmission Provider's analysis of how the proposed technological advancement (i) results in equal to or better electrical performance, (ii) does not increase the Interconnection Customer's requested interconnection service, and (iii) does not cause any reliability concerns (i.e., material impacts to the transmission system, including impacts to short circuit capability limits, steady-state thermal and voltage limits, or dynamic system stability and response). If the Technological Advancement Request is submitted during the time allocated under the

LGIP for Interconnection Customer to execute and return a Study Agreement to Transmission Provider, the deadline for execution and return of the Study agreement will be suspended while Transmission Provider analyzes the Technological Advancement Request in accordance with Section 39.4.6.

(b) If Transmission Provider is performing an Interconnection ~~Feasibility Study, Interconnection System Impact Study, or other study~~Study for the Interconnection Request at the time that Interconnection Customer submits a Technological Advancement Request, Transmission Provider shall suspend work on any such pending studies until it has completed its analysis of the Technological Advancement Request and any Technological Advancement Study.

(c) Interconnection Customer's Technological Advancement Request shall be deemed incomplete, and not subject to further study or review, until such time that the Interconnection Customer provides the Transmission Provider with any additional requested information necessary for the Transmission Provider to either (i) study the

Technological Advancement Request (in such case, a Technological Advancement Study Agreement will be required, per Section 39.4.6.3), or (ii) to determine that further study of the Technological Advancement Request is not necessary. Transmission Provider shall notify the Interconnection Customer in writing of the date it deems Interconnection Customer's Technological Advancement Request complete.

39.4.6.2

Initial Analysis of Technological Advancement Request.

(a) After the Interconnection Customer's Technological Advancement Request is deemed complete, the Transmission Provider will perform an initial analysis to determine whether the proposed technological advancement is a Permissible Technological Advancement without the need of additional study.

(b) If the Transmission Provider determines on the basis of its initial analysis that Interconnection Customer has demonstrated that the proposed technological advancement is a Permissible Technological Advancement without the need for additional study, the Transmission Provider will incorporate the technological advancement into

Interconnection Customer's
Interconnection Request.

(c) If the Transmission Provider determines on the basis of its initial analysis that Interconnection Customer has not demonstrated that the proposed technological advancement is a Permissible Technological Advancement, then the Technological Advancement Request will be treated as a request for modification of the Interconnection Request under Section 39.4.3.

(d) If the Transmission Provider determines on the basis of its initial analysis that further study is required to conclude whether the Technological Advancement Request is a Permissible Technological Advancement, Transmission Provider will require that a Technological Advancement Study be performed at the sole expense of the Interconnection Customer consistent with ~~sections~~Sections 39.4.6.3, 39.4.6.4, 39.4.6.5.

39.4.6.3

Technological Advancement Study Agreement:

(a) If after its initial analysis of a Technological Advancement Request, Transmission Provider determines that a Technological Advancement Study is necessary to determine whether the

requested technological advancement constitutes a Permissible Technological Advancement, Transmission Provider will tender a Technological Advancement Study Agreement to the Interconnection Customer for execution. In order to proceed with its technological advancement study request, Interconnection Customer must execute and deliver the Technological Advancement Study Agreement to the Transmission Provider no later than ten (10) Business Days after its receipt, along with a \$10,000 deposit.

(b) The Technological Advancement Study Agreement will include an estimate of the cost of the Technological Advancement Study.

39.4.6.4

Technological Advancement Study Procedures:

(a) Transmission Provider shall complete the Technological Advancement Study within thirty (30) Calendar Days of (i) receipt of the executed Technological Advancement Study Agreement, (ii) the \$10,000 deposit and (iii) all technical data and information necessary to complete the Technological Advancement Study, including any additional information requested under Section 39.4.6.4(c).

(b) The Technological Advancement Study shall seek to determine (i) whether the proposed technological advancement is a Permissible Technological Advancement, by focusing on whether the proposed technological advancement will result in equal or better electrical performance than the Large Generating Facility described in the Interconnection Request, and whether the proposed technological advancement will cause any reliability concerns (i.e., material impacts to the transmission system, including impacts to short circuit capability limits, steady-state thermal and voltage limits, or dynamic system stability and response); and (ii) if the proposed technological advancement is determined not to be a Permissible Technological Advancement, whether the proposed technological advancement is a Material Modification.

(c) Interconnection Customer shall cooperate with Transmission Provider to provide any additional information that Transmission Provider may require to complete the Technological Advancement Study. If the Transmission Provider determines that it requires additional technical information to complete the

Technological Advancement Study the Transmission Provider shall notify the Interconnection Customer of the additional technical information required. The Interconnection Customer shall have ten (10) business days to provide the additional technical information or the Transmission Provider will finalize the Technological Advancement Study with results that indicate that the Interconnection Customer has not demonstrated that its proposed Technological Advancement is a Permissible Technological Advancement.

(d) Upon completion of the Technological Advancement Study, Transmission Provider shall provide Interconnection Customer notice of its study conclusions. Upon request, Transmission Provider shall also provide Interconnection Customer supporting documentation, workpapers and databases, and/or data developed in the preparation of the Technological Advancement Study, subject to confidentiality arrangements consistent with Section 48.1.

(e) If the Technological Advancement Study determines that the proposed technological advancement is either (i) a Permissible Technological Advancement, or (ii) is not a Permissible

Technological Advancement but does not constitute a Material Modification, then the Interconnection Request shall be amended to reflect the technological advancement.

(f) If the Technological Advancement Study determines that the proposed technological advancement is not a Permissible Technological Advancement and also constitutes a Material Modification, Transmission Provider shall provide an explanation for this conclusion. Interconnection Customer may then withdraw the proposed modification or proceed with a new Interconnection Request for such modification.

39.4.6.5

Treatment of Other Interconnection Studies During and After Technological Advancement Study. Upon completion of the Transmission Provider's initial analysis of a Technological Advancement Request and any Technological Advancement Study, Transmission Provider and Interconnection Customer shall amend any existing Interconnection ~~Feasibility Study Agreement, Interconnection System Impact Study Agreement, or other Interconnection Study Agreements~~ Study agreements as necessary to incorporate

elements of the requested technological advancement or the results of the Technological Advancement Study. Transmission Provider may require additional time or information to complete or re-run studies that were suspended during the pendency of the Technological Advancement Request.

IV. LARGE GENERATION INTERCONNECTION SERVICE

~~40 Procedures for Interconnection Requests Submitted Prior to Effective Date of Standard Large Generator Interconnection Procedures~~ 40 New Transmission Provider

~~40.1 Queue Position for Pending Requests:~~ [Reserved]

~~40.1.1 Any Interconnection Customer assigned a Queue Position prior to the effective date of this LGIP shall retain that Queue Position.~~

~~40.1.1.1 If an Interconnection Study Agreement has not been executed as of the effective date of this LGIP, then such Interconnection Study, and any subsequent Interconnection Studies, shall be processed in accordance with this LGIP.~~

~~40.1.1.2 If an Interconnection Study Agreement has been executed prior to the effective date of this LGIP, such Interconnection Study shall be completed in accordance with the terms of such agreement. With respect to any remaining studies for which an Interconnection Customer has not signed an Interconnection Study Agreement prior to the effective date of the LGIP, Transmission Provider must offer Interconnection Customer the option of either continuing under Transmission Provider's existing interconnection study process or going forward with the completion of the necessary~~

~~Interconnection Studies (for which it does not have a signed Interconnection Studies Agreement) in accordance with this LGIP.~~

~~40.1.1.3 If an LGIA has been submitted to FERC for approval before the effective date of the LGIP, then the LGIA would be grandfathered.~~

~~40.1.2 Transition Period.~~

~~To the extent necessary, Transmission Provider and Interconnection Customers with an outstanding request (i.e., an Interconnection Request for which an LGIA has not been submitted to FERC for approval as of the effective date of this LGIP) shall transition to this LGIP within a reasonable period of time not to exceed sixty (60) Calendar Days. The use of the term "outstanding request" herein shall mean any Interconnection Request, on the effective date of this LGIP: (i) that has been submitted but not yet accepted by Transmission Provider; (ii) where the related interconnection agreement has not yet been submitted to FERC for approval in executed or unexecuted form, (iii) where the relevant Interconnection Study Agreements have not yet been executed, or (iv) where any of the relevant Interconnection Studies are in process but not yet completed. Any Interconnection Customer with an outstanding request as of the effective date of this LGIP may request a reasonable extension of any deadline, otherwise applicable, if necessary to avoid undue hardship or prejudice to its Interconnection Request. A reasonable extension shall be granted by Transmission Provider to the extent consistent with the intent and process provided for under this LGIP.~~

40.2 New Transmission Provider.

If Transmission Provider transfers control of its Transmission System to a successor Transmission Provider during the period when an Interconnection Request is pending, the original Transmission Provider shall transfer to the successor Transmission Provider any amount of the deposit or payment with interest thereon that exceeds the cost that it incurred to evaluate the request for interconnection. Any difference between such net amount and the deposit or payment required by this LGIP shall be paid by or refunded to the Interconnection Customer, as appropriate. The original Transmission Provider shall coordinate with the successor Transmission Provider to complete any Interconnection Study, as appropriate, that the original Transmission Provider has begun but has not completed. If Transmission Provider has tendered a draft LGIA to Interconnection Customer but Interconnection Customer has not either executed the LGIA or requested the filing of an unexecuted LGIA with FERC, unless otherwise provided, Interconnection Customer must complete negotiations with the successor Transmission Provider.

IV. LARGE GENERATION INTERCONNECTION SERVICE

41 Informational Interconnection ~~Feasibility~~ Study

- 41.1 ~~Interconnection Feasibility Study Agreement:~~ Simultaneously with the acknowledgement of a valid Interconnection Request Transmission Provider shall provide to Interconnection Customer an Interconnection Feasibility Study Agreement in the form of Appendix 2. The Interconnection Feasibility Study Agreement shall specify that Interconnection Customer is responsible for the actual cost of the Interconnection Feasibility Study. Within five (5) Business Days following the Scoping Meeting Interconnection Customer shall specify for inclusion in the attachment to the Interconnection Feasibility Study Agreement the Point(s) of Interconnection and any reasonable alternative Point(s) of Interconnection. Within five (5) Business Days following Transmission Provider's receipt of such designation, Transmission Provider shall tender to Interconnection Customer the Interconnection Feasibility Study Agreement signed by Transmission Provider, which includes a good faith estimate of the cost for completing the Interconnection Feasibility Study. Interconnection Customer shall execute and deliver to Transmission Provider the Interconnection Feasibility Study Agreement along with a \$10,000 deposit no later than thirty (30) Calendar Days after its receipt. Informational Interconnection Studies.

41.1.1 Informational Interconnection Study Request.

Interconnection Customers may not submit requests for Informational Interconnection Studies until after the Transition Readiness Deadline, as defined in Attachment W. Thereafter, at any time

prior to submission of an Interconnection Request, an Interconnection Customer may request, and Transmission Provider (either itself or through a consultant) shall perform a reasonable number of Informational Interconnection Studies pursuant to the terms of Section 41.

Interconnection Customer shall submit to Transmission Provider an Informational Interconnection Study Request in the form of Appendix 2 to this LGIP and shall describe the assumptions that Interconnection Customer wishes Transmission Provider to study within the scope described in Section 41.1.3, including a proposed Point(s) of Interconnection and any reasonable alternative Point(s) of Interconnection.

At the time the Informational Interconnection Study Request is submitted, Interconnection Customer must request either Energy Resource Interconnection Service or Network Resource Interconnection Service, as described in Section 38.4.1; provided, however, any Interconnection Customer requesting an Informational Interconnection Study for Network Resource Interconnection Service may also request that it be concurrently studied for Energy Resource Interconnection Service.

Interconnection Customer must submit a deposit with each Informational Interconnection Request even when more than one request is submitted for a single site. An Informational Interconnection Request to evaluate one site at two different voltage levels shall be treated as two Informational Interconnection Requests.

At the request of either the Interconnection Customer or Transmission Provider, Transmission Provider and Interconnection Customer will schedule a scoping meeting at a mutually agreed-upon time.

41.1.2 Informational Interconnection Study Agreement.

~~On or before the return of the executed~~
Within five (5) Business Days after receipt of a
request for an Informational
~~Interconnection Feasibility Study Agreement~~
~~to Study,~~ Transmission Provider, shall provide to
Interconnection Customer shall provide the
~~technical data called for in Attachment N,~~
~~Appendix 1, Attachment~~ an Informational
Interconnection Study Agreement in the form of
Appendix 2A.

~~If the Interconnection Feasibility Study uncovers~~
~~any unexpected result(s) not contemplated during~~
~~the Scoping Meeting, a substitute Point of~~
~~Interconnection identified by either~~
~~Interconnection Customer or Transmission~~
~~Provider, and acceptable to the other, such~~
~~acceptance not to be unreasonably withheld, will~~
~~be substituted for the designated Point of~~
~~Interconnection specified above without loss of~~
~~Queue Position, and Re-studies shall be completed~~
~~pursuant to Section 41.4 as applicable. For the~~
~~purpose of this Section 41.1, if Transmission~~
~~Provider and Interconnection Customer cannot~~
~~agree on the substituted Point of~~
~~Interconnection, then Interconnection Customer~~
~~may direct that one of the alternatives as~~
~~specified in the Interconnection Feasibility~~
~~Study Agreement, as specified pursuant to Section~~
~~38.4.4, shall be the substitute.~~

The Informational Interconnection Study Agreement
shall: (i) include the scope of work for the
Informational Interconnection Study, subject to
other requirements in Section 41.1.3, (ii)
specify the technical data that Interconnection
Customer must provide, (iii) specify the
Informational Interconnection Study case and
assumptions, and (iv) identify the Transmission
Provider's estimate of the cost of the
Informational Interconnection Study.
Notwithstanding the above, Transmission Provider
shall not be required as a result of an
Informational Interconnection Study request to
conduct any additional Interconnection Studies

with respect to any other Interconnection Request.

~~If~~

~~Interconnection Customer and Transmission Provider agree to forgo the Interconnection Feasibility Study, Transmission Provider will initiate an Interconnection System Impact Study under Section 42 of this LGIP and apply the \$10,000 deposit towards the Interconnection System Impact Study.~~ shall execute the Informational Interconnection Study Agreement within ten (10) Business Days of receipt of an agreed upon scope of work and deliver the Informational Interconnection Study Agreement, the technical data, and a \$10,000 study deposit to Transmission Provider. Interconnection Customer shall be responsible for actual study costs.

~~41.2~~41.1.3 Scope

of Informational Interconnection Feasibility Study:

~~The Interconnection Feasibility Study shall preliminarily evaluate the feasibility of the proposed interconnection to the Transmission System.~~ Study.

~~The~~ The intent of the Informational Interconnection Study is to aid Interconnection Customer in its business decisions related to interconnection of generation facilities prior to submitting an Interconnection Request. The Informational Interconnection Feasibility Study will consider the Base Case as well as all generating facilities (and with respect to (iii), any identified Network Upgrades) that, on the date the Informational Interconnection Feasibility Study is commenced: (i) are directly interconnected to the Transmission System; (ii) are interconnected to Affected Systems and may have an impact on the Interconnection Request; (iii) have a pending higher queued Interconnection Request to interconnect to the Transmission System; and (iv) have no Queue Position but have executed an LGIA or requested that an unexecuted LGIA be filed with FERC. The Informational Interconnection Feasibility

Study will consist of a power flow and short circuit analysis. ~~The Interconnection Feasibility Study will provide a list of facilities and a non-binding good faith estimate of cost responsibility and a non-binding good faith estimated time to construct.~~

To the extent possible, the Informational Interconnection Study shall identify the potential Transmission Provider's Interconnection Facilities and the Network Upgrades, and the estimated cost thereof, that may be required to provide Interconnection Service based upon the results and assumptions of the Informational Interconnection Study.

The Informational Interconnection Study shall be performed solely for informational purposes and does not bind the Transmission Provider in any way or entitle the requesting Interconnection Customer to a Queue Position. Interconnection Customer requesting an Informational Interconnection Study shall not be assigned any cost responsibility for Network Upgrades. For the avoidance of doubt, neither the request for nor the performance of an Informational Interconnection Study shall be considered an Interconnection Request.

~~41.3-41.1.4~~

Informational Interconnection Feasibility Study Procedures: ~~Transmission Provider shall utilize existing studies to the extent practicable when it performs the study~~Study Procedures.

The executed Informational Interconnection Study Agreement, the deposit, and technical and other data called for therein must be provided to Transmission Provider within ten (10) Business Days of Interconnection Customer receipt of the Informational Interconnection Study Agreement.

Transmission Provider shall use Reasonable Efforts to complete the Informational Interconnection Feasibility Study ~~no later than forty-five (45) Calendar Days after Transmission Provider receives the fully~~

~~executed Interconnection Feasibility Study Agreement. At the request of Interconnection Customer or at any time Transmission Provider determines that it will not meet the required time frame for completing the Interconnection Feasibility Study, Transmission Provider shall notify Interconnection Customer as to the schedule status of the Interconnection Feasibility Study~~Study within a mutually agreed upon time period specified within the Informational Interconnection Study Agreement. This time period shall take into account all previous requests for Informational Studies that have been submitted but not yet completed. If Transmission Provider is unable to complete the Informational Interconnection Feasibility Study within ~~that~~such time period, it shall notify Interconnection Customer and provide an estimated completion date ~~with~~and an explanation of the reasons why additional time is required.

Any difference between the study payment and the actual cost of the study shall be paid to Transmission Provider or refunded to Interconnection Customer, as appropriate. Upon request, Transmission Provider shall provide Interconnection Customer supporting documentation, ~~workpapers and relevant power flow, short circuit and stability databases for the Interconnection Feasibility and work papers and databases or data developed in the preparation of the Informational Interconnection Study,~~ subject to confidentiality arrangements consistent with Section 48.1.

~~Transmission Provider shall study the Interconnection Request at the level of service requested by the Interconnection Customer, unless otherwise required to study the full Generating Facility Capacity due to safety or reliability concerns.~~

~~41.3.1 Meeting with Transmission Provider.~~

~~Within ten (10) Business Days of providing an Interconnection Feasibility Study report to Interconnection Customer, Transmission Provider and Interconnection Customer shall meet to discuss the results of the Interconnection Feasibility Study.~~

~~**41.4 Re-Study:** If Re-Study of the Interconnection Feasibility Study is required due to a higher queued project dropping out of the queue, or a modification of a higher queued project subject to Section 39.4, or re-designation of the Point of Interconnection pursuant to Section 41.1 Transmission Provider shall notify Interconnection Customer in writing. Such Re-Study shall take not longer than forty five (45) Calendar Days from the date of the notice. Any cost of Re-Study shall be borne by the Interconnection Customer being re-studied.~~

IV. LARGE GENERATION INTERCONNECTION SERVICE

42 ~~Interconnection System Impact~~ Cluster Study

~~42.1 Interconnection System Impact Study Agreement: Unless otherwise agreed, pursuant to the Scoping Meeting provided in Section 38.4.4, simultaneously with the delivery of the Interconnection Feasibility Study to Interconnection Customer~~ Cluster Study Agreement: No later than five (5) Business Days after the close of a Cluster Request Window, Transmission Provider shall provide tender to each Interconnection Customer that submitted a valid Interconnection System Impact Request a Cluster Study Agreement in the form of Appendix 3 to this LGIP. The Interconnection System Impact Cluster Study Agreement shall provide that require the Interconnection Customer shall to compensate Transmission Provider for the actual cost of the Interconnection System Impact Study. Within three (3) Cluster Study. The specifications, assumptions, or other provisions in the appendices of the Cluster System Impact Study Agreement provided pursuant to this Section 42.1 shall be subject to change by Transmission Provider following conclusion of the Scoping Meeting.

42.2 Customer Engagement Window

Upon the close of each Cluster Request Window, Transmission Provider will open a thirty (30) Calendar Day period ("Customer Engagement Window"). During the Customer Engagement Window, Transmission Provider shall hold a Scoping Meeting with all interested Interconnection Customers. Notwithstanding the preceding sentence and upon written consent of all Interconnection Customers within a specific Cluster, Transmission Provider may shorten the Customer Engagement Window in order to start the Cluster Study earlier. Within the first ten (10) Business Days following the Interconnection Feasibility Study results meeting close of the Cluster Request Window, Transmission Provider shall post on its OASIS site a list of

Interconnection Requests for that Cluster. The list shall identify, for each Interconnection Request: (i) the requested amount of Interconnection Service; (ii) the location by county and state; (iii) the station or transmission line or lines where the interconnection will be made; (iv) the projected In-Service Date; (v) the type of Interconnection Service requested; (vi) the type of Generating Facility to be constructed including fuel type such as wind, natural gas, coal, or solar; and (vii) the Cluster Area assigned to each Interconnection Request. During the Customer Engagement Window, Transmission Provider will provide to Interconnection Customer a non-binding updated good faith estimate of the cost and timeframe for completing the ~~Interconnection System Impact~~Cluster Study.

At the end of the Customer Engagement Window, all Interconnection Requests deemed valid that have executed a Cluster Study Agreement in the form of Appendix 3 shall be included in that Cluster Study. Any Interconnection Requests not deemed valid or undergoing Dispute Resolution at the close of the Customer Engagement Window shall not be included in that Cluster. Immediately following the Customer Engagement Window, Transmission Provider shall initiate the Cluster Study described in more detail in Section 42.

42.242.3 Execution of ~~Interconnection System Impact~~Cluster Study Agreement:— and Scope of Cluster Study.

Interconnection Customer shall execute the ~~Interconnection System Impact~~Cluster Study Agreement and deliver the executed ~~Interconnection System Impact~~Cluster Study Agreement to Transmission Provider no later than ~~thirty (30) Calendar Days after its receipt along with demonstration of Site Control, and a \$50,000 deposit~~the close of the Customer Engagement Window.

~~If Interconnection Customer does not provide all such technical data when it delivers the Interconnection System Impact Study Agreement, Transmission Provider shall notify Interconnection Customer of the deficiency within five (5) Business Days of the receipt of the executed Interconnection System Impact Study Agreement and Interconnection Customer shall cure the deficiency within ten (10) Business Days of receipt of the notice, provided, however, such deficiency does not include failure to deliver the executed Interconnection System Impact Study Agreement or deposit.~~

~~If the Interconnection System Impact Study uncovers any unexpected result(s) not contemplated during the Scoping Meeting and the Interconnection Feasibility Study, a substitute Point of Interconnection identified by either Interconnection Customer or Transmission Provider, and acceptable to the other, such acceptance not to be unreasonably withheld, will be substituted for the designated Point of Interconnection specified above without loss of Queue Position, and restudies shall be completed pursuant to Section 42.6 as applicable. For the purpose of this Section 42.2, if Transmission Provider and Interconnection Customer cannot agree on the substituted Point of Interconnection, then Interconnection Customer may direct that one of the alternatives as specified in the Interconnection Feasibility Study Agreement, as specified pursuant to Section 38.4.4, shall be the substitute.~~

~~**42.3 Scope of Interconnection System Impact Study:** The Interconnection System Impact The Cluster Study shall evaluate the impact of the proposed interconnection on the reliability of the Transmission System. The ~~Interconnection System Impact~~ Cluster Study will consider the Base Case as well as all generating facilities (and with respect to (iii) below, any identified Network Upgrades associated with such higher queued interconnection) that, on the date~~

the ~~Interconnection System Impact Study is commenced~~Cluster Request Window closes:

- (i) are existing and directly interconnected to the Transmission System;
- (ii) are existing and interconnected to Affected Systems and may have an impact on the Interconnection Request;
- (iii) have a pending higher queued or higher clustered Interconnection Request to interconnect to the Transmission System; and
- (iv) have no Queue Position but have executed an LGIA or requested that an unexecuted LGIA be filed with FERC.

For purposes of determining necessary Interconnection Facilities and Network Upgrades, the Cluster Study shall consider the level of Interconnection Service requested by the Interconnection Customer, unless otherwise required to study the full Generating Facility Capacity due to safety or reliability concerns.

The ~~Interconnection System Impact~~Cluster Study ~~will~~shall consist of ~~a short circuit analysis, a power flow, stability analysis, and a power flow analysis. The Interconnection System Impact Study,~~ and short circuit analyses, the results of which are documented in a single Cluster Study Report, or Cluster Re-Study Report, as applicable.

For purposes of identifying Network Upgrades and other facilities caused by requests for Network Resource Interconnection Service, Transmission Provider will run two iterations of the Cluster Study. The first iteration of the Cluster Study shall assume all requests in the applicable Cluster Study have requested Energy Resource Interconnection Service, to establish a baseline of shared Network Upgrades. In the second iteration, the Transmission Provider shall update

the study with any requests for Network Resource Interconnection Service, as applicable, to identify the incremental Network Upgrades caused by the requests for Network Resource Interconnection Service.

At the conclusion of the Cluster Study, Transmission Provider will issue a Cluster Study Report. The Cluster Study report will state the assumptions upon which it is based; state the results of the analyses; and provide the requirements or potential impediments to providing the requested interconnection service, including a preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the interconnection. ~~For purposes of determining necessary~~ The Cluster Study Report shall identify Transmission Provider's Interconnection Facilities and Network Upgrades, ~~the System Impact Study shall consider the level of Interconnection Service requested by the Interconnection Customer, unless otherwise required to study the full Generating Facility Capacity due to safety or reliability concerns. The Interconnection System Impact~~ expected to be required to reliably interconnect the Generating Facilities in that Cluster Study at the requested Interconnection Service level and shall provide non-binding estimates for required upgrades. The Cluster Study Report shall identify each Interconnection Customer's estimated allocated costs for Transmission Provider's Interconnection Facilities and Transmission Provider's Network Upgrades pursuant to the methodology in Section 39.2.3. Transmission Provider shall hold an open stakeholder meeting pursuant to Section 42.4 below.

The Cluster Study report will provide a list of facilities that are required as a result of the Interconnection ~~Request~~ Requests and a non-binding good faith estimate of cost responsibility and a

non-binding good faith estimated time to construct.

Upon issuance of a Cluster Study Report, or Cluster Re-Study Report, if any, Transmission Provider shall simultaneously tender a draft Facility Study Agreement, subject to the conditions in Section 43.1.

42.4 ~~Interconnection System Impact~~Cluster Study Procedures:-.

Transmission Provider shall coordinate the ~~Interconnection System Impact~~Cluster Study with any Affected System that is affected by the Interconnection Request pursuant to Section 38.6 above. Transmission Provider shall utilize existing studies to the extent practicable when it performs the ~~study.~~Cluster Study. Interconnection Requests for a Cluster Study may be submitted only within the Cluster Request Window and Transmission Provider shall ~~use Reasonable Efforts to complete the Interconnection System Impact Study within ninety (90) Calendar Days after the receipt of the Interconnection System Impact Study Agreement or notification to proceed, study payment, and technical data. If Transmission Provider uses Clustering, Transmission Provider shall use Reasonable Efforts to deliver a completed Interconnection System Impact Study within ninety (90) Calendar Days after the close of the Queue Cluster Window.~~initiate the Cluster Study process pursuant to Section 39.2.1.

- a. Transmission Provider may segment and perform Cluster Studies according to geographically and/or electrically relevant areas on the Transmission Provider's Transmission System ("Cluster Area"). Cluster Areas shall be determined by the Transmission Provider at the end of each Customer Engagement Window and shall be based on the valid Interconnection Requests that are submitted during the Cluster Request Window. Before the Scoping Meeting,

the Transmission Provider shall initially determine each Cluster Area and shall post on its OASIS website, for discussion during the Scoping Meeting, a draft plan for the Cluster Study, including a map and table defining the Cluster Areas assigned to each valid Interconnection Request received during the Cluster Request Window. Transmission Provider shall post an updated Cluster Area map, table, and final Cluster Study plan on OASIS by no later than the end of the Customer Engagement Window. The Cluster Study shall consist of all valid Interconnection Requests in each respective Cluster Area that have executed a Cluster Study Agreement and have provided all required information before the close of the Customer Engagement Window.

b. Unless restudies are required pursuant to Section 42.5, Transmission Provider shall use Reasonable Efforts to complete the Cluster Study within one hundred fifty (150) Calendar Days of the close of the Customer Engagement Window.

c. **Within ten (10) Business Days** of simultaneously furnishing a Cluster Study Report (or, as applicable, Cluster Re-Study Report) and a draft Interconnection Facilities Study Agreement to Interconnection Customers and posting such report on OASIS, Transmission Provider shall convene an open meeting to discuss the study results ("Cluster Study Report Meeting" or "Cluster Re Study Report Meeting"). Transmission Provider shall, upon request, also make itself available to meet with individual Interconnection Customers after the report is provided.

42.5 Cluster Study Withdrawals and Re-Studies

a. If no Interconnection Customer withdraws from the Cluster after completion of the

Cluster Study or Cluster Re-Study or is deemed withdrawn pursuant to Section 38.7, Transmission Provider shall electronically notify Interconnection Customers in the Cluster that a Cluster Re-Study is not required.

- b. If one or more Interconnection Customer withdraw(s) from the Cluster, Transmission Provider shall determine if a Cluster Re-Study of the Cluster is necessary. If Transmission Provider determines a Cluster Re-Study is not necessary, Transmission Provider shall provide an updated Cluster Study Report within thirty (30) Calendar Days of such determination. When the updated Cluster Study Report is issued, Transmission Provider shall electronically notify Interconnection Customers in the Cluster that a Cluster Re-Study is not required.
- c. If one or more Interconnection Customers withdraws from the Cluster and Transmission Provider determines a restudy of the Cluster is necessary as a result, Transmission Provider will continue with such re-studies as described in Section 42.5.d below, until Transmission Provider determines that no further re-studies are required. If an Interconnection Customer withdraws after Section 42.5.a, Section 42.5.c, during the Interconnection Facilities Study, or after other Interconnection Customers in the same Cluster have executed LGIAs, and Transmission Provider determines a restudy of the Cluster is necessary, the Cluster (including any Cluster Area) shall be restudied as described in Section 42.5.d below. Transmission Provider shall electronically notify Interconnection Customers in the Cluster and post on OASIS that a re-study is required.
- d. The scope of any Cluster Re-study shall be consistent with the scope of an initial

Cluster Study pursuant to Section 42.3. Transmission Provider shall use Reasonable Efforts to complete the Cluster Re-Study for all Cluster Areas within one hundred fifty (150) Calendar Days of the commencement of the first Cluster Area Re-Study. The results of the Cluster Re-Study shall be combined into a single report ("Cluster Re-Study Report"), and Transmission Provider shall hold an open stakeholder meeting ("Cluster Re-Study Report Meeting") within ten (10) Business Days of publishing Cluster Re-Study Report on OASIS.

If additional re-studies are required, Interconnection Customer and Transmission Provider shall follow the procedures of this Section 42.5 until such time that Transmission Provider determines that no further re-studies are required. Transmission Provider shall electronically notify Interconnection Customers in the Cluster when no further re-studies are required.

- e. At the request of Interconnection Customer or at any time Transmission Provider determines that it will not meet the required ~~time frame~~timeframe for completing the ~~Interconnection System Impact~~Cluster Study, Transmission Provider shall notify Interconnection ~~Customer~~Customers as to the schedule status of the ~~Interconnection System Impact~~Cluster Study. If Transmission Provider is unable to complete the ~~Interconnection System Impact~~Cluster Study within the time period, it shall notify Interconnection ~~Customer~~Customers and provide an estimated completion date with an explanation of the reasons why additional time is required.

Upon request, Transmission Provider shall provide to Interconnection Customer all supporting documentation, workpapers, and

relevant pre-Interconnection Request and post-Interconnection Request power flow, short circuit and stability databases for the ~~Interconnection System Impact~~Cluster Study, subject to confidentiality arrangements consistent with Section 48.1.

~~42.5 Meeting with Transmission~~

~~Provider: Within ten (10) Business Days of providing an Interconnection System Impact Study report to Interconnection Customer, Transmission Provider and Interconnection Customer shall meet to discuss the results of the Interconnection System Impact Study.~~
~~f. 42.6 Re-Study:~~

If Re-Study of the ~~Interconnection System Impact Study~~Cluster Study other than the Re-Study described in Section 42.5(a)-(d) is required due to a higher or equal priority queued project dropping out of the queue, or a modification of a higher queued project subject to Section 39.4, ~~or re-designation of the Point of Interconnection pursuant to Section 42.2~~ Transmission Provider shall notify Interconnection Customer(s) in writing. ~~Such~~ The Transmission Provider shall make Reasonable Efforts to ensure such Re-Study ~~shall take~~takes no longer than ~~sixty (60)~~one hundred fifty (150) Calendar Days from the date of notice. ~~Any~~ Except as provided in Section 38.7 in the case of withdrawing Interconnection Customers, any cost of Re-Study shall be borne by ~~the~~ Interconnection Customer(s) being re-studied.

IV. LARGE GENERATION INTERCONNECTION SERVICE

43 Interconnection Facilities Study

43.1 Interconnection Facilities Study Agreement:

Simultaneously with the delivery of the ~~Interconnection System Impact Study to Interconnection Customer~~final Cluster Study Report, or Cluster Re-Study Report if applicable, Transmission Provider shall provide to Interconnection Customer an Interconnection Facilities Study Agreement in the form of Appendix 4 to this LGIP. The Interconnection Facilities Study Agreement shall provide that Interconnection Customer shall compensate Transmission Provider for the actual cost of the Interconnection Facilities Study. ~~Within three (3) Business Days following the Interconnection System Impact Study results meeting,~~ Transmission Provider shall provide to Interconnection Customer a non-binding good faith estimate of the cost and timeframe for completing the Interconnection Facilities Study.

Interconnection Customer shall execute the Interconnection Facilities Study Agreement and deliver the executed Interconnection Facilities Study Agreement to Transmission Provider within thirty (30) Calendar Days after its receipt, together with ~~the~~:

a. any required technical data ~~and the greater of \$100,000 or Interconnection Customer's portion of the estimated monthly cost of conducting the Interconnection Facilities Study.;~~

b. a demonstration of Site Control pursuant to Section 38.4.1(iii)(a); and

~~43.1.1 Transmission Provider shall invoice~~

c. demonstration of a Readiness Milestone option in Sections 38.4.1(v)(b)-(c) or a Financial Security payment equal to the

Network Upgrade costs allocated to Interconnection Customer on a monthly basis for the work to be conducted on the Interconnection Facilities Study each month. Interconnection Customer shall pay invoiced amounts within thirty (30) Calendar Days of receipt of invoice. Transmission Provider shall continue to hold the amounts on deposit until settlement of the final invoice. in the most recent Cluster Study Report minus any amounts already paid pursuant to Section 38.4.1(v)(d). Such additional Financial Security shall be refunded in accordance with Section 48.3.3.

43.2 Scope of Interconnection Facilities Study: The Interconnection Facilities Study shall be specific to each Interconnection Request and performed on an individual, i.e. non-clustered, basis. The Interconnection Facilities Study shall specify and provide a non-binding estimate of the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the ~~Interconnection System Impact Study~~ Cluster Study Report (and any associated restudies) in accordance with Good Utility Practice to physically and electrically connect the Interconnection ~~Facility~~ Facilities to the Transmission System. The Interconnection Facilities Study shall also identify the electrical switching configuration of the connection equipment, including, without limitation: the transformer, switchgear, meters, and other station equipment; the nature and estimated cost of any Transmission Provider's Interconnection Facilities and Network Upgrades necessary to accomplish the interconnection; and an estimate of the time required to complete the construction and installation of such facilities. The Facilities Study will also identify any potential control equipment for requests for Interconnection Service that are lower than the Generating Facility Capacity.

43.3 Interconnection Facilities Study Procedures:

Transmission Provider shall coordinate the Interconnection Facilities Study with any Affected System pursuant to Section 38.6 above. Transmission Provider shall utilize existing studies to the extent practicable in performing the Interconnection Facilities Study. Transmission Provider shall use Reasonable Efforts to complete the study and issue a draft Interconnection Facilities Study report to Interconnection Customer within the following number of days after receipt of an executed Interconnection Facilities Study Agreement: ninety (90) Calendar Days, with no more than a +/- 20 percent cost estimate contained in the report; or one hundred eighty (180) Calendar Days, if Interconnection Customer requests a +/- 10 percent cost estimate.

At the request of Interconnection Customer or at any time Transmission Provider determines that it will not meet the required time frame for completing the Interconnection Facilities Study, Transmission Provider shall notify Interconnection Customer as to the schedule status of the Interconnection Facilities Study. If Transmission Provider is unable to complete the Interconnection Facilities Study and issue a draft Interconnection Facilities Study report within the time required, it shall notify Interconnection Customer and provide an estimated completion date and an explanation of the reasons why additional time is required.

Interconnection Customer may, within thirty (30) Calendar Days after receipt of the draft [Interconnection Facilities Study](#) report, provide written comments to Transmission Provider, which Transmission Provider shall include in [completing](#) the final [Interconnection Facilities Study](#) report. Transmission Provider shall issue the final Interconnection Facilities Study report within fifteen (15) Business Days of receiving Interconnection Customer's comments or promptly upon receiving Interconnection

Customer's statement that it will not provide comments. Transmission Provider may reasonably extend such fifteen-~~day~~ (15) Business Day period upon notice to Interconnection Customer if Interconnection Customer's comments require Transmission Provider to perform additional analyses or make other significant modifications prior to the issuance of the final Interconnection Facilities Study Report. Upon request, Transmission Provider shall provide Interconnection Customer supporting documentation, workpapers, and databases or data developed in the preparation of the Interconnection Facilities Study, subject to confidentiality arrangements consistent with Section 48.1.

43.4 Meeting with Transmission Provider: Within ten (10) Business Days of providing a draft Interconnection Facilities Study report to Interconnection Customer, Transmission Provider and Interconnection Customer shall meet to discuss the results of the Interconnection Facilities Study.

43.5 Re-Study: If Re-Study of the Interconnection Facilities Study, or Facilities Study for a Small Generating Facility performed under Section 51.5, is required due to a higher or equal priority queued project dropping out of the queue or a modification of a higher queued project pursuant to Section 39.4, Transmission Provider shall so notify Interconnection Customer in writing. ~~Such~~Transmission Provider shall make Reasonable Efforts to ensure such Re-Study shall take no longer than sixty (60) Calendar Days from the date of notice. ~~Any~~Re-Studies that require rerunning the Cluster Study analysis may take longer than sixty days. Except as provided in Section 38.7 in the case of withdrawing Interconnection Customers, any cost of Re-Study shall be borne by the Interconnection Customer being re-studied.

IV. LARGE GENERATION INTERCONNECTION SERVICE

44 Engineering & Procurement ("E&P") Agreement

Prior to executing an LGIA, an Interconnection Customer may, in order to advance the implementation of its interconnection, request and Transmission Provider shall offer the Interconnection Customer, an E&P Agreement that authorizes Transmission Provider to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection. However, Transmission Provider shall not be obligated to offer an E&P Agreement if Interconnection Customer is in Dispute Resolution as a result of an allegation that Interconnection Customer has failed to meet any milestones or comply with any prerequisites specified in other parts of the LGIP. The E&P Agreement is an optional procedure and it will not alter the Interconnection Customer's Queue Position or In-Service Date. The E&P Agreement shall provide for Interconnection Customer to pay the cost of all activities authorized by Interconnection Customer and to make advance payments or provide other satisfactory security for such costs.

Interconnection Customer shall pay the cost of such authorized activities and any cancellation costs for equipment that is already ordered for its interconnection, which cannot be mitigated as hereafter described, whether or not such items or equipment later become unnecessary. If Interconnection Customer withdraws ~~its application for interconnection~~from the Cluster or either Party terminates the E&P Agreement, to the extent the equipment ordered can be canceled under reasonable terms, Interconnection Customer shall be obligated to pay the associated cancellation costs. To the extent that the equipment cannot be reasonably canceled, Transmission Provider may elect: (i) to take title to the equipment, in which event Transmission Provider shall refund Interconnection Customer any amounts paid by Interconnection Customer for such equipment and

shall pay the cost of delivery of such equipment, or (ii) to transfer title to and deliver such equipment to Interconnection Customer, in which event Interconnection Customer shall pay any unpaid balance and cost of delivery of such equipment.

IV. LARGE GENERATION INTERCONNECTION SERVICE

45 ~~Optional Interconnection Study~~Reserved

~~45.1 Optional Interconnection Study Agreement: On or after the date when Interconnection Customer receives Interconnection System Impact Study results, Interconnection Customer may request, and Transmission Provider shall perform a reasonable number of Optional Studies. The request shall describe the assumptions that Interconnection Customer wishes Transmission Provider to study within the scope described in Section 45.2. Within five (5) Business Days after receipt of a request for an Optional Interconnection Study, Transmission Provider shall provide to Interconnection Customer an Optional Interconnection Study Agreement in the form of Appendix 5.~~

~~The Optional Interconnection Study Agreement shall: (i) specify the technical data that Interconnection Customer must provide for each phase of the Optional Interconnection Study, (ii) specify Interconnection Customer's assumptions as to which Interconnection Requests with earlier queue priority dates will be excluded from the Optional Interconnection Study case and assumptions as to the type of interconnection service for Interconnection Requests remaining in the Optional Interconnection Study case, and (iii) Transmission Provider's estimate of the cost of the Optional Interconnection Study. To the extent known by Transmission Provider, such estimate shall include any costs expected to be incurred by any Affected System whose participation is necessary to complete the Optional Interconnection Study. Notwithstanding the above, Transmission Provider shall not be required as a result of an Optional Interconnection Study request to conduct any additional Interconnection Studies with respect to any other Interconnection Request.~~

~~Interconnection Customer shall execute the Optional Interconnection Study Agreement within ten (10) Business Days of receipt and deliver the Optional Interconnection Study Agreement, the technical data and a \$10,000 deposit to Transmission Provider.~~

~~**45.2 Scope of Optional Interconnection Study:** The Optional Interconnection Study will consist of a sensitivity analysis based on the assumptions specified by Interconnection Customer in the Optional Interconnection Study Agreement. The Optional Interconnection Study will also identify Transmission Provider's Interconnection Facilities and the Network Upgrades, and the estimated cost thereof, that may be required to provide transmission service or Interconnection Service based upon the results of the Optional Interconnection Study. The Optional Interconnection Study shall be performed solely for informational purposes. Transmission Provider shall use Reasonable Efforts to coordinate the study with any Affected Systems that may be affected by the types of Interconnection Services that are being studied. Transmission Provider shall utilize existing studies to the extent practicable in conducting the Optional Interconnection Study.~~

~~**45.3 Optional Interconnection Study Procedures:** The executed Optional Interconnection Study Agreement, the prepayment, and technical and other data called for therein must be provided to Transmission Provider within ten (10) Business Days of Interconnection Customer receipt of the Optional Interconnection Study Agreement. Transmission Provider shall use Reasonable Efforts to complete the Optional Interconnection Study within a mutually agreed upon time period specified within the Optional Interconnection Study Agreement. If Transmission Provider is unable to complete the Optional Interconnection Study within such time period, it shall notify Interconnection Customer and provide an estimated completion date and an explanation of the reasons~~

~~why additional time is required. Any difference between the study payment and the actual cost of the study shall be paid to Transmission Provider or refunded to Interconnection Customer, as appropriate. Upon request, Transmission Provider shall provide Interconnection Customer supporting documentation and workpapers and databases or data developed in the preparation of the Optional Interconnection Study, subject to confidentiality arrangements consistent with Section 48.1.~~

IV. LARGE GENERATION INTERCONNECTION SERVICE

46 Standard Large Generator Interconnection Agreement (LGIA)

46.1 Tender: Interconnection Customer shall tender comments on the draft Interconnection Facilities Study Report within thirty (30) Calendar Days of receipt of the report. Within thirty (30) Calendar Days after the comments are submitted or after the Interconnection Customer notifies Transmission Provider that it will not provide comments, Transmission Provider shall tender a draft LGIA, together with draft appendices. The draft LGIA shall be in the form of Transmission Provider's FERC-approved standard form LGIA, which is in Appendix 6. Interconnection Customer shall execute and return the completed draft appendices within thirty (30) Calendar Days unless the (60) Calendar Day negotiation period under Section 46.2 has commenced.

46.2 Negotiation: Notwithstanding Section 46.1, at the request of Interconnection Customer Transmission Provider shall begin negotiations with Interconnection Customer concerning the appendices to the LGIA at any time after Interconnection Customer executes the Interconnection Facilities Study Agreement. Transmission Provider and Interconnection Customer shall negotiate concerning any disputed provisions of the appendices to the draft LGIA for not more than sixty (60) Calendar Days after tender of the final Interconnection Facilities Study Report. If Interconnection Customer determines that negotiations are at an impasse, it may request termination of the negotiations at any time after tender of the draft LGIA pursuant to Section 46.1 and request submission of the unexecuted LGIA with FERC or initiate Dispute Resolution procedures pursuant to Section 48.5. If Interconnection Customer requests termination

of the negotiations, but within sixty (60) Calendar Days thereafter fails to request either the filing of the unexecuted LGIA or initiate Dispute Resolution, it shall be deemed to have withdrawn its Interconnection Request. Unless otherwise agreed by the Parties, if Interconnection Customer has not executed the LGIA, requested filing of an unexecuted LGIA, or initiated Dispute Resolution procedures pursuant to Section 48.5 within sixty (60) Calendar Days of tender of draft LGIA, it shall be deemed to have withdrawn its Interconnection Request. Transmission Provider shall provide to Interconnection Customer a final LGIA within fifteen (15) Business Days after the completion of the negotiation process.

46.3 Execution and Filing: Within fifteen (15) Business Days after receipt of the final LGIA, Interconnection Customer shall provide Transmission Provider with ~~(A) reasonable evidence that continued Site Control or (B) posting of \$250,000, non-refundable additional security, which shall be applied toward future construction costs~~ i) demonstration of continued Site Control pursuant to Section 38.4.1(iii)(a); and (ii) continued proof of meeting a Readiness Milestone Option in Section 38.4.1(v)(b) or Section 38.4.1(v)(c), unless Interconnection Customer paid a deposit as provided in Section 38.4.1(v)(d) and associated Network Upgrade costs pursuant to Section 43.1(c). At the same time, Interconnection Customer also shall provide reasonable evidence that one or more of the following milestones in the development of the Large Generating Facility, at Interconnection Customer election, has been achieved: (i) the execution of a contract for the supply or transportation of fuel to the Large Generating Facility ; (ii) the execution of a contract for the supply of cooling water to the Large Generating Facility; (iii) execution of a contract for the engineering for, procurement of major equipment for, or construction of, the Large Generating Facility; (iv) execution of a

contract (or comparable evidence) for the sale of electric energy or capacity from the Large Generating Facility; or (v) application for an air, water, or land use permit.

Unless otherwise agreed by the Parties, within sixty (60) Calendar Days after receipt of the final LGIA, Interconnection Customer shall either: (i) execute two originals of the tendered LGIA and return them to Transmission Provider; or (ii) request in writing that Transmission Provider file with FERC an LGIA in unexecuted form. As soon as practicable, but not later than ten (10) Business Days after receiving either the two executed originals of the tendered LGIA (if it does not conform with a FERC-approved standard form of interconnection agreement) or the request to file an unexecuted LGIA, Transmission Provider shall file the LGIA with FERC, together with its explanation of any matters as to which Interconnection Customer and Transmission Provider disagree and support for the costs that Transmission Provider proposes to charge to Interconnection Customer under the LGIA. An unexecuted LGIA should contain terms and conditions deemed appropriate by Transmission Provider for the Interconnection Request. If the Parties agree to proceed with design, procurement, and construction of facilities and upgrades under the agreed-upon terms of the unexecuted LGIA, they may proceed pending FERC action.

46.4 Commencement of Interconnection Activities: If Interconnection Customer executes the final LGIA, Transmission Provider and Interconnection Customer shall perform their respective obligations in accordance with the terms of the LGIA, subject to modification by FERC. Upon submission of an unexecuted LGIA, Interconnection Customer and Transmission Provider shall promptly comply with the unexecuted LGIA, subject to modification by FERC.

IV. LARGE GENERATION INTERCONNECTION SERVICE

47 Construction of Transmission Provider's Interconnection Facilities and Network Upgrades

47.1 Schedule: Transmission Provider and Interconnection Customer shall negotiate in good faith concerning a schedule for the construction of Transmission Provider's Interconnection Facilities and the Network Upgrades.

47.2 Construction Sequencing:

47.2.1 General.

In general, the In-Service Date of an Interconnection Customers seeking interconnection to the Transmission System will determine the sequence of construction of Network Upgrades. [Construction sequencing may also apply to shared Transmission Provider's Interconnection Facilities in a similar manner as described below for Network Upgrades.](#)

47.2.2 Advance Construction of Network Upgrades that are an Obligation of an Entity other than Interconnection Customer.

An Interconnection Customer with an LGIA, in order to maintain its In-Service Date, may request that Transmission Provider advance to the extent necessary the completion of Network Upgrades that: (i) were assumed in the Interconnection Studies for such Interconnection Customer, (ii) are necessary to support such In-Service Date, and (iii) would otherwise not be completed, pursuant to a contractual obligation of an entity other

than Interconnection Customer that is seeking interconnection to the Transmission System, in time to support such In-Service Date. Upon such request, Transmission Provider will use Reasonable Efforts to advance the construction of such Network Upgrades to accommodate such request; provided that Interconnection Customer commits to pay Transmission Provider: (i) any associated expediting costs and (ii) the cost of such Network Upgrades. Transmission Provider will refund to Interconnection Customer both the expediting costs and the cost of Network Upgrades, in accordance with Article 11.4 of the LGIA. Consequently, the entity with a contractual obligation to construct such Network Upgrades shall be obligated to pay only that portion of the costs of the Network Upgrades that Transmission Provider has not refunded to Interconnection Customer. Payment by that entity shall be due on the date that it would have been due had there been no request for advance construction. Transmission Provider shall forward to Interconnection Customer the amount paid by the entity with a contractual obligation to construct the Network Upgrades as payment in full for the outstanding balance owed to Interconnection Customer. Transmission Provider then shall refund to that entity the amount that it paid for the Network Upgrades, in accordance with Article 11.4 of the LGIA.

47.2.3 Advancing Construction of Network Upgrades that are Part of an Expansion Plan of the Transmission Provider.

An Interconnection Customer with an LGIA, in order to maintain its In-Service Date, may request that Transmission Provider advance to the extent necessary the

completion of Network Upgrades that: (i) are necessary to support such In-Service Date and (ii) would otherwise not be completed, pursuant to an expansion plan of Transmission Provider, in time to support such In-Service Date. Upon such request, Transmission Provider will use Reasonable Efforts to advance the construction of such Network Upgrades to accommodate such request; provided that Interconnection Customer commits to pay Transmission Provider any associated expediting costs. Interconnection Customer shall be entitled to transmission credits, if any, for any expediting costs paid.

47.2.4 Amended Interconnection System Impact Study.

~~An Interconnection System Impact Study~~If applicable, an interconnection system impact study will be amended to determine the facilities necessary to support the requested In-Service Date. This amended study will include those transmission and Large Generating Facilities that are expected to be in service on or before the requested In-Service Date.

IV. LARGE GENERATION INTERCONNECTION SERVICE

48 Miscellaneous

48.1 Confidentiality: Confidential Information shall include, without limitation, all information relating to a Party's technology, research and development, business affairs, and pricing, and any information supplied by either of the Parties to the other prior to the execution of an LGIA.

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Party receiving the information that the information is confidential.

If requested by either Party, the other Party shall provide in writing, the basis for asserting that the information referred to in this Article warrants confidential treatment, and the requesting Party may disclose such writing to the appropriate Governmental Authority. Each Party shall be responsible for the costs associated with affording confidential treatment to its information.

48.1.1 Scope.

Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a result of a disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party

after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (4) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (5) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or Breach of the LGIA; or (6) is required, in accordance with Section 48.1.6, Order of Disclosure, to be disclosed by any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under the LGIA. Information designated as Confidential Information will no longer be deemed confidential if the Party that designated the information as confidential notifies the other Party that it no longer is confidential.

48.1.2 Release of Confidential Information.

Neither Party shall release or disclose Confidential Information to any other person, except to its Affiliates (limited by the Standards of Conduct requirements), employees, consultants, or to parties who may be or considering providing financing to or equity participation with Interconnection Customer, or to potential purchasers or assignees of Interconnection Customer, on a need-to-know basis in connection with these procedures, unless such person has first been advised of the confidentiality provisions of this Section 48.1 and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Section 48.1.

48.1.3 Rights.

Each Party retains all rights, title, and interest in the Confidential Information that each Party discloses to the other Party. The disclosure by each Party to the other Party of Confidential Information shall not be deemed a waiver by either Party or any other person or entity of the right to protect the Confidential Information from public disclosure.

48.1.4 No Warranties.

By providing Confidential Information, neither Party makes any warranties or representations as to its accuracy or completeness. In addition, by supplying Confidential Information, neither Party obligates itself to provide any particular information or Confidential Information to the other Party nor to enter into any further agreements or proceed with any other relationship or joint venture.

48.1.5 Standard of Care.

Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to the other Party under these procedures or its regulatory requirements.

48.1.6 Order of Disclosure.

If a court or a Government Authority or entity with the right, power, and apparent authority to do so requests or requires either Party, by subpoena, oral

deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Party with prompt notice of such request(s) or requirement(s) so that the other Party may seek an appropriate protective order or waive compliance with the terms of the LGIA. Notwithstanding the absence of a protective order or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party will use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

48.1.7 Remedies.

The Parties agree that monetary damages would be inadequate to compensate a Party for the other Party's Breach of its obligations under this Section 48.1. Each Party accordingly agrees that the other Party shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party Breaches or threatens to Breach its obligations under this Section 48.1, which equitable relief shall be granted without bond or proof of damages, and the receiving Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the Breach of this Section 48.1, but shall be in addition to all other remedies available at law or in equity. The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for indirect, incidental, or consequential or

punitive damages of any nature or kind resulting from or arising in connection with this Section 48.1.

48.1.8 Disclosure to FERC, its Staff, or a State.

Notwithstanding anything in this Section 48.1 to the contrary, and pursuant to 18 CFR ~~section~~Section 1b.20, if FERC or its staff, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to the LGIP, the Party shall provide the requested information to FERC or its staff, within the time provided for in the request for information. In providing the information to FERC or its staff, the Party must, consistent with 18 CFR ~~section~~Section 388.112, request that the information be treated as confidential and non-public by FERC and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party prior to the release of the Confidential Information to FERC or its staff. The Party shall notify the other Party to the LGIA when its is notified by FERC or its staff that a request to release Confidential Information has been received by FERC, at which time either of the Parties may respond before such information would be made public, pursuant to 18 CFR ~~section~~Section 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner, consistent with applicable state rules and regulations.

48.1.9 Subject to the exception in Section 48.1.8, any information that a Party claims is competitively sensitive,

commercial or financial information ("Confidential Information") shall not be disclosed by the other Party to any person not employed or retained by the other Party, except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the other Party, such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this LGIP or as a transmission service provider or a Control Area operator including disclosing the Confidential Information to an RTO or ISO or to a subregional, regional or national reliability organization or planning group. The Party asserting confidentiality shall notify the other Party in writing of the information it claims is confidential. Prior to any disclosures of the other Party's Confidential Information under this subparagraph, or if any third party or Governmental Authority makes any request or demand for any of the information described in this subparagraph, the disclosing Party agrees to promptly notify the other Party in writing and agrees to assert confidentiality and cooperate with the other Party in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

48.1.10 This provision shall not apply to any information that was or is hereafter in the public domain (except as a result of a Breach of this provision).

48.1.11 Transmission Provider shall, at Interconnection Customer's election, destroy, in a confidential manner, or return the Confidential Information provided at the time of Confidential Information is no longer needed.

48.2 Delegation of Responsibility: Transmission Provider may use the services of subcontractors as it deems appropriate to perform its obligations under this LGIP. Transmission Provider shall remain primarily liable to Interconnection Customer for the performance of such subcontractors and compliance with its obligations of this LGIP. The subcontractor shall keep all information provided confidential and shall use such information solely for the performance of such obligation for which it was provided and no other purpose.

48.3 Obligation for Study Costs and Withdrawal Penalties; Refunds:

48.3.1 Transmission Provider shall charge and Interconnection Customer shall pay the actual costs of the Interconnection Studies (or actual allocated costs, in the case of Cluster Studies pursuant to Section 39.2.2) and any Withdrawal Penalty, as applicable. Any difference between the study deposit and the actual cost of the applicable Interconnection Study shall be paid by or refunded, except as otherwise provided herein, to Interconnection Customer or offset against the cost of any future Interconnection Studies associated with the applicable Interconnection Request prior to beginning of any such future Interconnection Studies. If an Interconnection Customer's study deposit paid pursuant to Section 38.1 is greater than the Interconnection Customer's share of actual Cluster Study costs (including applicable restudies), any excess amounts shall be applied to the

Interconnection Customer's individual Interconnection Facility Study costs, or refunded to the Interconnection Customer following Transmission Provider's issuance of the Interconnection Customer's final Interconnection Facilities Study report. Interconnection Customer shall be responsible for any Withdrawal Penalties pursuant to Section 38.7 in the event of withdrawal.

48.3.2 In the event of Interconnection Customer's Withdrawal pursuant to Section 38.7, Transmission provider shall refund to Interconnection Customer any of the refundable portion of the following charges: (a) any study deposit paid pursuant to Section 38.1; (b) \$3,000 per MW deposit paid pursuant to Section 38.4.1(v)(d); (c) any Site Control-related deposit paid pursuant to Section 38.4.1(iii); and (d) additional Financial Security payment for Network Upgrade costs paid pursuant to Section 43.1(c). Such refundable portion shall be any amount that exceeds Interconnection Customer's share of the costs that Transmission Provider has incurred (such as study costs) including interest calculated in accordance with Section 35.19a(a)(2) of FERC's regulations, and that exceed any Withdrawal Penalty imposed, if applicable.

48.3.3 Additional Financial Security paid by Interconnection Customer pursuant to Section 43.1(c) shall be refunded in whole or in part on the earlier of: (i) Interconnection Customer is able to demonstrate a Readiness Milestone Option in Section 38.4.1(v)(b) or Section 38.4.1(v)(c); (ii) the Interconnection Request is withdrawn from the queue and pays any required Withdrawal Penalties; (iii) before achieving Commercial Operation the Interconnection Customer

terminates its executed LGIA pursuant to LGIA Article 2.3 or applicable termination procedures and pays any required Withdrawal Penalties; or (iv) Interconnection Customer achieves Commercial Operation. Any partial or full refund pursuant to this Section shall include interest (if applicable) calculated in accordance with Section 35.19a(a)(2) of FERC's regulations, and that exceed any Withdrawal Penalty imposed, and it shall also be subject to the Network Upgrade crediting provisions of LGIA Article 11.4.

48.3.4 Any invoices for Interconnection Studies shall include a detailed and itemized accounting of the cost of each Interconnection Study as well as the Withdrawal Penalty, if applicable. Interconnection Customer shall pay any such undisputed costs within thirty (30) Calendar Days of receipt of an invoice therefore. Transmission Provider shall not be obligated to perform or continue to perform any studies unless Interconnection Customer has paid all undisputed amounts in compliance herewith. If invoices are not paid within thirty (30) Calendar Days of receipt of an invoice, Transmission Provider shall draw upon any security and deposits provided under this LGIP to settle all accounts, which shall include any offsets of amounts due and owing by Transmission Provider. After the final invoice is paid and all accounts are settled, Transmission Provider shall refund all remaining security and deposits.

48.4 Third Parties Conducting Studies: If (i) at the time of the signing of an Interconnection Study Agreement there is disagreement as to the estimated time to complete an Interconnection Study, (ii) Interconnection Customer receives notice pursuant to Sections ~~41.3, 42.4~~41.1.4,

42.5(e) or 43.3 that Transmission Provider will not complete an Interconnection Study within the applicable timeframe for such Interconnection Study, or (iii) Interconnection Customer receives neither the Interconnection Study nor a notice under Sections ~~41.3, 42.4~~41.1.4, 42.5(e) or 43.3 within the applicable timeframe for such Interconnection Study, then Interconnection Customer may require Transmission Provider to utilize a third party consultant reasonably acceptable to Interconnection Customer and Transmission Provider to perform such Interconnection Study under the direction of Transmission Provider. At other times, Transmission Provider may also utilize a third party consultant to perform such Interconnection Study, either in response to a general request of Interconnection Customer, or on its own volition.

In all cases, use of a third party consultant shall be in accord with Article 26 of the LGIA (Subcontractors) and limited to situations where Transmission Provider determines that doing so will help maintain or accelerate the study process for Interconnection Customer's pending Interconnection Request and not interfere with Transmission Provider's progress on Interconnection Studies for other pending Interconnection Requests. In cases where Interconnection Customer requests use of a third party consultant to perform such Interconnection Study, Interconnection Customer and Transmission Provider shall negotiate all of the pertinent terms and conditions, including reimbursement arrangements and the estimated study completion date and study review deadline. Transmission Provider shall convey all workpapers, data bases, study results and all other supporting documentation prepared to date with respect to the Interconnection Request as soon as practicable upon Interconnection Customer's request subject to the confidentiality provision in Section 48.1. In any case, such third party contract may be entered into with either Interconnection Customer or Transmission Provider

at Transmission Provider's discretion. In the case of (iii) Interconnection Customer maintains its right to submit a claim to Dispute Resolution to recover the costs of such third party study. Such third party consultant shall be required to comply with this LGIP, Article 26 of the LGIA (Subcontractors), and the relevant Tariff procedures and protocols as would apply if Transmission Provider were to conduct the Interconnection Study and shall use the information provided to it solely for purposes of performing such services and for no other purposes. Transmission Provider shall cooperate with such third party consultant and Interconnection Customer to complete and issue the Interconnection Study in the shortest reasonable time.

48.5 Disputes:

48.5.1 Submission.

In the event either Party has a dispute, or asserts a claim, that arises out of or in connection with the LGIA, the LGIP, or their performance, such Party (the "disputing Party") shall provide the other Party with written notice of the dispute or claim ("Notice of Dispute"). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Party. In the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within thirty (30) Calendar Days of the other Party's receipt of the Notice of Dispute, such claim or dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to

submit such claim or dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of this LGIA.

48.5.2 External Arbitration Procedures.

Any arbitration initiated under these procedures shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) Calendar Days of the submission of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. The two arbitrators so chosen shall within twenty (20) Calendar Days select a third arbitrator to chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("Arbitration Rules") and any applicable FERC regulations or RTO rules; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Section 48, the terms of this Section 48 shall prevail.

48.5.3 Arbitration Decisions.

Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision

within ninety (90) Calendar Days of appointment and shall notify the Parties in writing of such decision and the reasons therefore. The arbitrator(s) shall be authorized only to interpret and apply the provisions of the LGIA and LGIP and shall have no power to modify or change any provision of the LGIA and LGIP in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed with FERC if it affects jurisdictional rates, terms and conditions of service, Interconnection Facilities, or Network Upgrades.

48.5.4 Costs.

Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three member panel and one half of the cost of the third arbitrator chosen; or (2) one half the cost of the single arbitrator jointly chosen by the Parties.

48.5.5 Non-binding dispute resolution procedures.

If a Party has submitted a Notice of Dispute pursuant to ~~section~~[Section](#) 48.5.1, and the Parties are unable to resolve the claim or dispute through unassisted or assisted negotiations within the thirty (30) Calendar Days provided in that ~~section~~[Section](#), and the Parties cannot reach mutual agreement to pursue

the ~~section~~Section 48.5 arbitration process, a Party may request that Transmission Provider engage in Non-binding Dispute Resolution pursuant to this ~~section~~Section by providing written notice to Transmission Provider ("Request for Non-binding Dispute Resolution"). Conversely, either Party may file a Request for Non-binding Dispute Resolution pursuant to this ~~section~~Section without first seeking mutual agreement to pursue the ~~section~~Section 48.5 arbitration process. The process in ~~section~~Section 48.5.5 shall serve as an alternative to, and not a replacement of, the ~~section~~Section 48.5 arbitration process. Pursuant to this process, a Transmission Provider must within 30 days of receipt of the Request for Non-binding Dispute Resolution appoint a neutral decision-maker that is an independent subcontractor that shall not have any current or past substantial business or financial relationships with either Party. Unless otherwise agreed by the Parties, the decision-maker shall render a decision within sixty (60) Calendar Days of appointment and shall notify the Parties in writing of such decision and reasons therefore. This decision-maker shall be authorized only to interpret and apply the provisions of the LGIP and LGIA and shall have no power to modify or change any provision of the LGIP and LGIA in any manner. The result reached in this process is not binding, but, unless otherwise agreed, the Parties may cite the record and decision in the non-binding dispute resolution process in future dispute resolution processes, including in a ~~section~~Section 48.5 arbitration, or in a Federal Power Act ~~section~~Section 206 complaint. Each Party shall be responsible for its own costs incurred during the process and the cost of the decision-maker

shall be divided equally among each Party to the dispute.

48.6 Local Furnishing Bonds:

48.6.1 Transmission Providers That Own Facilities Financed by Local Furnishing Bonds.

This provision is applicable only to a Transmission Provider that has financed facilities for the local furnishing of electric energy with tax-exempt bonds, as described in Section 142(f) of the Internal Revenue Code ("local furnishing bonds"). Notwithstanding any other provision of this LGIA and LGIP, Transmission Provider shall not be required to provide Interconnection Service to Interconnection Customer pursuant to this LGIA and LGIP if the provision of such Transmission Service would jeopardize the tax-exempt status of any local furnishing bond(s) used to finance Transmission Provider's facilities that would be used in providing such Interconnection Service.

48.6.2 Alternative Procedures for Requesting Interconnection Service.

If Transmission Provider determines that the provision of Interconnection Service requested by Interconnection Customer would jeopardize the tax-exempt status of any local furnishing bond(s) used to finance its facilities that would be used in providing such Interconnection Service, it shall advise the Interconnection Customer within thirty (30) Calendar Days of receipt of the Interconnection Request.

Interconnection Customer thereafter may renew its request for interconnection using the process specified in Article

5.2(ii) of the Transmission Provider's
Tariff.

V. SMALL GENERATION INTERCONNECTION SERVICE

Generator Interconnection Procedures Applicable to Generating Facilities No Larger than 20 MW

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Appendix 2 - Small Generator Interconnection Request
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Appendix 6 - ~~Feasibility Study Agreement (Attachment O of
the Tariff)~~ Reserved

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Appendix 8 - Facilities Study Agreement (Attachment O of
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Appendix 9 - Small Generator Interconnection Agreement
(Attachment O of the Tariff)

V. **SMALL GENERATION INTERCONNECTION SERVICE**

49 Application [for Small Generating Facility Interconnections](#)

49.1 Applicability:

49.1.1 A request to interconnect a certified Small Generating Facility (See Appendices 3 and 4 to Attachment O of the Tariff for description of certification criteria) to the Transmission Provider's Distribution System shall be evaluated under the section 50 Fast Track Process if the eligibility requirements of Section 50.1 are met. A request to interconnect a certified inverter-based Small Generating Facility no larger than 10 kilowatts (kW) shall be evaluated under the Appendix 5 to Attachment O of the Tariff 10 kW Inverter Process. A request to interconnect a Small Generating Facility no larger than 20 megawatts (MW) that does not meet the eligibility requirements of section 50.1 or does not pass the Fast Track Process or the 10 kW Inverter Process, shall be evaluated under the section 51 Study Process. If the Interconnection Customer wishes to interconnect its Small Generating Facility using Network Resource Interconnection Service, it must do so under the Standard Large Generator Interconnection Procedures and execute the Standard Large Generator Interconnection Agreement. [Small Generating Facilities that are subject to the study process in Section 51 shall be required to participate in Transmission Provider's Cluster process pursuant to Section 42, except as otherwise provided in Section 51.](#)

49.1.2 Capitalized terms used herein shall have the meanings specified in the Glossary of

Terms in Appendix 1 to Attachment O of the Tariff or the body of these procedures.

- 49.1.3** ~~Neither~~ Except as otherwise provided in Attachment W, neither these procedures nor the requirements included hereunder apply to Small Generating Facilities interconnected or approved for interconnection prior to 60 Business Days after the effective date of these procedures.
- 49.1.4** Prior to submitting its Interconnection Request (Appendix 2 to Attachment O of the Tariff), the Interconnection Customer may ask the Transmission Provider's interconnection contact employee or office whether the proposed interconnection is subject to these procedures. The Transmission Provider shall respond within 15 Business Days.
- 49.1.5** Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. The Federal Energy Regulatory Commission expects all Transmission Providers, market participants, and Interconnection Customers interconnected with electric systems to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and best practice recommendations from the electric reliability authority. All public utilities are expected to meet basic standards for electric system infrastructure and operational security, including physical, operational, and cyber-security practices.
- 49.1.6** References in these procedures to interconnection agreement are to the Small Generator Interconnection Agreement

(SGIA).

49.2 Pre-Application:

49.2.1 The Transmission Provider shall designate an employee or office from which information on the application process and on an Affected System can be obtained through informal requests from the Interconnection Customer presenting a proposed project for a specific site. The name, telephone number, and e-mail address of such contact employee or office shall be made available on the Transmission Provider's Internet web site. Electric system information provided to the Interconnection Customer should include relevant system studies, interconnection studies, and other materials useful to an understanding of an interconnection at a particular point on the Transmission Provider's Transmission System, to the extent such provision does not violate confidentiality provisions of prior agreements or critical infrastructure requirements. The Transmission Provider shall comply with reasonable requests for such information.

49.2.2 In addition to the information described in section 49.2.1, which may be provided in response to an informal request, an Interconnection Customer may submit a formal written request form along with a non-refundable fee of \$300 for a pre-application report on a proposed project at a specific site. The Transmission Provider shall provide the pre-application data described in section 49.2.3 to the Interconnection Customer within 20 Business Days of receipt of the completed request form and payment of the \$300 fee. The pre-application report produced by the Transmission Provider is non-binding, does not confer any rights, and the

Interconnection Customer must still successfully apply to interconnect to the Transmission Provider's system. The written pre-application report request form shall include the information in sections 49.2.2.1 through 49.2.2.8 below to clearly and sufficiently identify the location of the proposed Point of Interconnection.

- 49.2.2.1 Project contact information, including name, address, phone number, and email address.
- 49.2.2.2 Project location (street address with nearby cross streets and town)
- 49.2.2.3 Meter number, pole number, or other equivalent information identifying proposed Point of Interconnection, if available.
- 49.2.2.4 Generator Type (e.g., solar, wind, combined heat and power, etc.)
- 49.2.2.5 Size (alternating current kW)
- 49.2.2.6 Single or three phase generator configuration
- 49.2.2.7 Stand-alone generator (no onsite load, not including station service Yes or No?)
- 49.2.2.8 Is new service requested? Yes or No? If there is existing service, include the customer account number, site minimum and maximum current or proposed electric loads in kW

(if available) and specify if the load is expected to change.

49.2.3 Using the information provided in the pre-application report request form in section 49.2.2, the Transmission Provider will identify the substation/area bus, bank or circuit likely to serve the proposed Point of Interconnection. This selection by the Transmission Provider does not necessarily indicate, after application of the screens and/or study, that this would be the circuit the project ultimately connects to. The Interconnection Customer must request additional pre-application reports if information about multiple Points of Interconnection is requested. Subject to section 49.2.4, the pre-application report will include the following information:

49.2.3.1 Total capacity (in MW) of substation/area bus, bank or circuit based on normal or operating ratings likely to serve the proposed Point of Interconnection.

49.2.3.2 Existing aggregate generation capacity (in MW) interconnected to a substation/area bus, bank or circuit (i.e., amount of generation online) likely to serve the proposed Point of Interconnection.

49.2.3.3 Aggregate queued generation capacity (in MW) for a substation/area bus, bank or circuit (i.e., amount of generation in the queue) likely to serve the proposed Point of Interconnection.

- 49.2.3.4 Available capacity (in MW) of substation/area bus or bank and circuit likely to serve the proposed Point of Interconnection (i.e., total capacity less the sum of existing aggregate generation capacity and aggregate queued generation capacity).
- 49.2.3.5 Substation nominal distribution voltage and/or transmission nominal voltage if applicable.
- 49.2.3.6 Nominal distribution circuit voltage at the proposed Point of Interconnection.
- 49.2.3.7 Approximate circuit distance between the proposed Point of Interconnection and the substation.
- 49.2.3.8 Relevant line section(s) actual or estimated peak load and minimum load data, including daytime minimum load as described in section 50.4.4.1.1 below and absolute minimum load, when available.
- 49.2.3.9 Number and rating of protective devices and number and type (standard, bi-directional) of voltage regulating devices between the proposed Point of Interconnection and the substation/area. Identify whether the substation has a load tap changer.
- 49.2.3.10 Number of phases available at the proposed Point of

Interconnection. If a single phase, distance from the three-phase circuit.

- 49.2.3.11** Limiting conductor ratings from the proposed Point of Interconnection to the distribution substation.
- 49.2.3.12** Whether the Point of Interconnection is located on a spot network, grid network, or radial supply.
- 49.2.3.13** Based on the proposed Point of Interconnection, existing or known constraints such as, but not limited to, electrical dependencies at that location, short circuit interrupting capacity issues, power quality or stability issues on the circuit, capacity constraints, or secondary networks.

49.2.4 The pre-application report need only include existing data. A pre-application report request does not obligate the Transmission Provider to conduct a study or other analysis of the proposed generator in the event that data is not readily available. If the Transmission Provider cannot complete all or some of a pre-application report due to lack of available data, the Transmission Provider shall provide the Interconnection Customer with a pre-application report that includes the data that is available. The provision of information on "available capacity" pursuant to section 49.2.3.4 does not imply that an interconnection up to this level may be completed without impacts since there are many variables studied as part of the interconnection

review process, and data provided in the pre-application report may become outdated at the time of the submission of the complete Interconnection Request. Notwithstanding any of the provisions of this section, the Transmission Provider shall, in good faith, include data in the pre-application report that represents the best available information at the time of reporting.

49.3 Interconnection Request

The Interconnection Customer shall submit its Interconnection Request to the Transmission Provider, together with the processing fee or deposit specified in the Interconnection Request. The Interconnection Request shall be date- and time-stamped upon receipt. The original date- and time-stamp applied to the Interconnection Request at the time of its original submission shall be accepted as the qualifying date- and time-stamp for the purposes of any timetable in these procedures. The Interconnection Customer shall be notified of receipt by the Transmission Provider within three Business Days of receiving the Interconnection Request. The Transmission Provider shall notify the Interconnection Customer within ten Business Days of the receipt of the Interconnection Request as to whether the Interconnection Request is complete or incomplete. If the Interconnection Request is incomplete, the Transmission Provider shall provide along with the notice that the Interconnection Request is incomplete, a written list detailing all information that must be provided to complete the Interconnection Request, including if Transmission Provider identifies issues with technical data provided by an Interconnection Customer subject to study pursuant to Section 51. The Interconnection Customer will have ten (10) Business Days after receipt of the notice to submit the listed information or to request an extension of time to provide such information, provided that

Interconnection Customers subject to study under Section 51 shall provide such additional listed information by no later than the close of the Cluster Request Window.

If the Interconnection Customer does not provide the listed information or a request for an extension of time within the deadline, the Interconnection Request will be deemed withdrawn. An Interconnection Request will be deemed complete upon submission of the listed information to the Transmission Provider.

49.4 Modification of the Interconnection Request

Any modification to machine data or equipment configuration or to the interconnection site of the Small Generating Facility not agreed to in writing by the Transmission Provider and the Interconnection Customer may be deemed a withdrawal of the Interconnection Request and may require submission of a new Interconnection Request, unless proper notification of each Party by the other and a reasonable time to cure the problems created by the changes are undertaken.

49.5 Site Control

Documentation of site control must be submitted with the Interconnection Request. Site control may be demonstrated through:

- 49.5.1** Ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the Small Generating Facility;
- 49.5.2** An option to purchase or acquire a leasehold site for such purpose; or
- 49.5.3** An exclusivity or other business relationship between the Interconnection Customer and the entity having the right to sell, lease, or grant the Interconnection Customer the right to

possess or occupy a site for such purpose.

49.6 Queue Position

The Transmission Provider shall assign a Queue Position based upon the date- and time-stamp of the Interconnection Request. ~~The~~Except as otherwise noted in Section 51, the Queue Position of each Interconnection Request will be used to determine the cost responsibility for the Upgrades necessary to accommodate the interconnection. The Transmission Provider shall maintain a single queue per geographic region. ~~At~~Except as otherwise noted in Section 51, at the Transmission Provider's option, Interconnection Requests may be studied serially or in clusters ~~for the purpose of the system impact study~~pursuant to Sections 42 and 51 of Transmission Provider's OATT.

49.7 Interconnection Requests Submitted Prior to the Effective Date of the SGIP

Nothing in this SGIP affects an Interconnection Customer's Queue Position assigned before the effective date of this SGIP. The Parties agree to complete work on any interconnection study agreement executed prior the effective date of this SGIP in accordance with the terms and conditions of that interconnection study agreement. ~~Any new studies or other additional work will be completed pursuant to this SGIP~~Notwithstanding the proceeding two sentences, Interconnection Customer with a Transition Request, as defined in Attachment W of Transmission Provider's OATT and subject to the eligibility requirements reflected therein, shall be included in the Transition Cluster Study if the Small Generating Facility (1) is larger than 2 MW but no larger than 20 MW, (2) is not certified, or (3) is certified but did not pass the Fast Track Process or the 10 kW Inverter Process.

V. SMALL GENERATION INTERCONNECTION SERVICE

50 Fast Track Process

50.1 Applicability: The Fast Track Process is available to an Interconnection Customer proposing to interconnect its Small Generating Facility with the Transmission Provider's Distribution System if the Small Generating Facility's capacity does not exceed the size limits identified in the table below. Small Generating Facilities below these limits are eligible for Fast Track review. However, Fast Track eligibility is distinct from the Fast Track Process itself, and eligibility does not imply or indicate that a Small Generating Facility will pass the Fast Track screens in section 50.2.1 below or the Supplemental Review screens in section 50.4.4 below.

Fast Track eligibility is determined based upon the generator type, the size of the generator, voltage of the line and the location of and the type of line at the Point of Interconnection. All Small Generating Facilities connecting to lines greater than 69 kilovolt (kV) are ineligible for the Fast Track Process regardless of size. All synchronous and induction machines must be no larger than 2 MW to be eligible for the Fast Track Process, regardless of location. For certified inverter-based systems, the size limit varies according to the voltage of the line at the proposed Point of Interconnection. Certified inverter-based Small Generating Facilities located within 2.5 electrical circuit miles of a substation and on a mainline (as defined in the table below) are eligible for the Fast Track Process under the higher thresholds according to the table below. In addition to the size threshold, the Interconnection Customer's proposed Small Generating Facility must meet the codes, standards, and certification requirements

of Appendices 3 and 4 to Attachment O of the
Tariff, or the Transmission Provider has to have
reviewed the design or tested the proposed Small
Generating Facility and is satisfied that it is
safe to operate.

Fast Track Eligibility for Inverter-Based Systems		
Line Voltage	Fast Track Eligibility Regardless of Location	Fast Track Eligibility on a Mainline[1] and ≤ 2.5 Electrical Circuit Miles from Substation[2]
< 5 kV	≤ 500 kW	≤ 500 kW
≥ 5 kV and <15 kV	≤ 2 MW	≤ 3 MW
≥ 15 kV and <30 kV	≤ 3 MW	≤ 4 MW
≥ 30 kV and ≤ 69 kV	≤ 4 MW	≤ 5 MW

[1] For purposes of this table, a mainline is the three-phase backbone of a circuit. It will typically constitute lines with wire sizes of 4/0 American wire gauge, 336.4 kcmil, 397.5 kcmil, 477 kcmil and 795 kcmil.

[2] An Interconnection Customer can determine this information about its proposed interconnection location in advance by requesting a pre-application report pursuant to section 49.2.

50.2 Initial Review: Within 15 Business Days after the Transmission Provider notifies the Interconnection Customer it has received a complete Interconnection Request, the Transmission Provider shall perform an initial review using the screens set forth below, shall notify the Interconnection Customer of the results, and include with the notification copies of the analysis and data underlying the Transmission Provider's determinations under the screens.

50.2.1 Screens

50.2.1.1 The proposed Small Generating Facility's Point of Interconnection must be on a portion of the Transmission Provider's Distribution System that is subject to the Tariff.

50.2.1.2 For interconnection of a proposed Small Generating Facility to a radial

distribution circuit, the aggregated generation, including the proposed Small Generating Facility, on the circuit shall not exceed 15 % of the line section annual peak load as most recently measured at the substation. A line section is that portion of a Transmission Provider's electric system connected to a customer bounded by automatic sectionalizing devices or the end of the distribution line.

- 50.2.1.3** For interconnection of a proposed Small Generating Facility to the load side of spot network protectors, the proposed Small Generating Facility must utilize an inverter-based equipment package and, together with the aggregated other inverter-based generation, shall not exceed the smaller of 5 % of a spot network's maximum load or 50 kW [1].

[1] A spot Network is a type of distribution system found within modern commercial buildings to provide high reliability of service to a single customer. (Standard Handbook for Electrical Engineers, 11th edition, Donald Fink, McGraw Hill Book Company

- 50.2.1.4** The proposed Small Generating Facility, in aggregation with other generation on the distribution circuit, shall not contribute more than 10 % to the distribution circuit's maximum

fault current at the point on the high voltage (primary) level nearest the proposed point of change of ownership.

50.2.1.5 The proposed Small Generating Facility, in aggregate with other generation on the distribution circuit, shall not cause any distribution protective devices and equipment (including, but not limited to, substation breakers, fuse cutouts, and line reclosers), or Interconnection Customer equipment on the system to exceed 87.5 % of the short circuit interrupting capability; nor shall the interconnection be proposed for a circuit that already exceeds 87.5 % of the short circuit interrupting capability.

50.2.1.6 Using the table below, determine the type of interconnection to a primary distribution line. This screen includes a review of the type of electrical service provided to the Interconnecting Customer, including line configuration and the transformer connection to limit the potential for creating over-voltages on the Transmission Provider's electric power system due to a loss of ground during the operating time of any anti-islanding function.

Primary Distribution Line Type	Type of Interconnection to Primary Distribution Line	Result/Criteria
Three-phase, three	3-phase or single	Pass screen

wire	phase, phase-to-phase	
Three-phase, four wire	Effectively-grounded 3 phase or Single-phase, line-to-neutral	Pass screen

50.2.1.7 If the proposed Small Generating Facility is to be interconnected on single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed Small Generating Facility, shall not exceed 20 kW.

50.2.1.8 If the proposed Small Generating Facility is single-phase and is to be interconnected on a center tap neutral of a 240 volt service, its addition shall not create an imbalance between the two sides of the 240 volt service of more than 20% of the nameplate rating of the service transformer.

50.2.1.9 The Small Generating Facility, in aggregate with other generation interconnected to the transmission side of a substation transformer feeding the circuit where the Small Generating Facility proposes to interconnect shall not exceed 10 MW in an area where there are known, or posted, transient stability limitations to generating units located in the general electrical vicinity (e.g., three or four transmission busses from the point of interconnection).

50.2.1.10 No construction of facilities by

the Transmission Provider on its own system shall be required to accommodate the Small Generating Facility.

50.2.2 If the proposed interconnection passes the screens, the Interconnection Request shall be approved and the Transmission Provider will provide the Interconnection Customer an executable interconnection agreement within five Business Days after the determination.

50.2.3 If the proposed interconnection fails the screens, but the Transmission Provider determines that the Small Generating Facility may nevertheless be interconnected consistent with safety, reliability, and power quality standards, the Transmission Provider shall provide the Interconnection Customer an executable interconnection agreement within five Business Days after the determination.

50.2.4 If the proposed interconnection fails the screens, but the Transmission Provider does not or cannot determine from the initial review that the Small Generating Facility may nevertheless be interconnected consistent with safety, reliability, and power quality standards unless the Interconnection Customer is willing to consider minor modifications or further study, the Transmission Provider shall provide the Interconnection Customer with the opportunity to attend a customer options meeting.

50.3 Customer Options Meeting: If the Transmission Provider determines the Interconnection Request cannot be approved without (1) minor modifications at minimal cost, (2) a supplemental study or other additional studies or actions, or (3) incurring significant cost to address safety,

reliability, or power quality problems, the Transmission Provider shall notify the Interconnection Customer of that determination within five Business Days after the determination and provide copies of all data and analyses underlying its conclusion. Within ten Business Days of the Transmission Provider's determination, the Transmission Provider shall offer to convene a customer options meeting with the Transmission Provider and Interconnection Customer to review possible Interconnection Customer facility modifications or the screen analysis and related results, to determine what further steps are needed to permit the Small Generating Facility to be connected safely and reliably. At the time of notification of the Transmission Provider's determination, or at the customer options meeting, the Transmission Provider shall:

- 50.3.1** Offer to perform facility modifications or minor modifications to the Transmission Provider's electric system (e.g., changing meters, fuses, relay settings) and provide a non-binding good faith estimate of the limited cost to make such modifications to the Transmission Provider's electric system. If the Interconnection Customer agrees to pay for the modifications to the Transmission Provider's electric system, the Transmission Provider will provide the Interconnection Customer with an executable interconnection agreement within ten Business Days of the customer options meeting, or
- 50.3.2** Offer to perform a supplemental review in accordance with section 50.4, and provide a non-binding good faith estimate of the costs of such review; or
- 50.3.3** Obtain the Interconnection Customer's agreement to continue evaluating the Interconnection Request under the section 51 Study Process.

50.4 Supplemental Review:

- 50.4.1** To accept the offer of a supplemental review, the Interconnection Customer shall agree in writing and submit a deposit for the estimated costs of the supplemental review in the amount of the Transmission Provider's good faith estimate of the costs of such review, both within 15 Business Days of the offer. If the written agreement and deposit have not been received by the Transmission Provider within that timeframe, the Interconnection Request shall continue to be evaluated under the section 51 Study Process unless it is withdrawn by the Interconnection Customer.
- 50.4.2** The Interconnection Customer may specify the order in which the Transmission Provider will complete the screens in section 50.4.4.
- 50.4.3** The Interconnection Customer shall be responsible for the Transmission Provider's actual costs for conducting the supplemental review. The Interconnection Customer must pay any review costs that exceed the deposit within 20 Business Days of receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced costs, the Transmission Provider will return such excess within 20 Business Days of the invoice without interest.
- 50.4.4** Within 30 Business Days following receipt of the deposit for a supplemental review, the Transmission Provider shall (1) perform a supplemental review using the screens set forth below; (2) notify in writing the Interconnection Customer of the results; and (3) include with the notification copies of the analysis and data underlying the Transmission Provider's determinations under the

screens. Unless the Interconnection Customer provided instructions for how to respond to the failure of any of the supplemental review screens below at the time the Interconnection Customer accepted the offer of supplemental review, the Transmission Provider shall notify the Interconnection Customer following the failure of any of the screens, or if it is unable to perform the screen in section 50.4.4.1, within two Business Days of making such determination to obtain the Interconnection Customer's permission to:

- (1) continue evaluating the proposed interconnection under this section 50.4.4;
- (2) terminate the supplemental review and continue evaluating the Small Generating Facility under section 51; or
- (3) terminate the supplemental review upon withdrawal of the Interconnection Request by the Interconnection Customer.

50.4.4.1 Minimum Load Screen: Where 12 months of line section minimum load data (including onsite load but not station service load served by the proposed Small Generating Facility) are available, can be calculated, can be estimated from existing data, or determined from a power flow model, the aggregate Generating Facility capacity on the line section is less than 100% of the minimum load for all line sections bounded by automatic sectionalizing devices upstream of the proposed Small Generating Facility. If minimum load data is not available, or cannot be calculated, estimated or determined, the Transmission Provider shall include the reason(s) that it is unable to calculate, estimate or determine

minimum load in its supplemental review results notification under section 50.4.4.

50.4.4.1.1 The type of generation used by the proposed Small Generating Facility will be taken into account when calculating, estimating, or determining circuit or line section minimum load relevant for the application of screen 50.4.4.1. Solar photovoltaic (PV) generation systems with no battery storage use daytime minimum load (i.e. 10 a.m. to 4 p.m. for fixed panel systems and 8 a.m. to 6 p.m. for PV systems utilizing tracking systems), while all other generation uses absolute minimum load.

50.4.4.1.2 When this screen is being applied to a Small Generating Facility that serves some station service load, only the net injection into the Transmission Provider's electric system will be considered as part of the aggregate generation.

50.4.4.1.3 Transmission Provider will not consider as part of the aggregate generation for purposes of this screen

generating facility
capacity known to be
already reflected in the
minimum load data.

50.4.4.2 Voltage and Power Quality
Screen: In aggregate with
existing generation on the line
section: (1) the voltage
regulation on the line section
can be maintained in compliance
with relevant requirements under
all system conditions; (2) the
voltage fluctuation is within
acceptable limits as defined by
Institute of Electrical and
Electronics Engineers (IEEE)
Standard 1453, or utility
practice similar to IEEE
Standard 1453; and (3) the
harmonic levels meet IEEE
Standard 519 limits.

50.4.4.3 Safety and Reliability Screen:
The location of the proposed
Small Generating Facility and
the aggregate generation
capacity on the line section do
not create impacts to safety or
reliability that cannot be
adequately addressed without
application of the Study
Process. The Transmission
Provider shall give due
consideration to the following
and other factors in determining
potential impacts to safety and
reliability in applying this
screen.

50.4.4.3.1 Whether the line section
has significant minimum
loading levels dominated
by a small number of
customers (e.g., several

large commercial customers).

- 50.4.4.3.2 Whether the loading along the line section is uniform or even.
- 50.4.4.3.3 Whether the proposed Small Generating Facility is located in close proximity to the substation (i.e., less than 2.5 electrical circuit miles), and whether the line section from the substation to the Point of Interconnection is a Mainline rated for normal and emergency ampacity.
- 50.4.4.3.4 Whether the proposed Small Generating Facility incorporates a time delay function to prevent reconnection of the generator to the system until system voltage and frequency are within normal limits for a prescribed time.
- 50.4.4.3.5 Whether operational flexibility is reduced by the proposed Small Generating Facility, such that transfer of the line section(s) of the Small Generating Facility to a neighboring distribution circuit/substation may trigger overloads or voltage issues.

50.4.4.3.6 Whether the proposed Small Generating Facility employs equipment or systems certified by a recognized standards organization to address technical issues such as, but not limited to, islanding, reverse power flow, or voltage quality.

50.4.5 If the proposed interconnection passes the supplemental screens in sections 50.4.4.1, 50.4.4.2, and 50.4.4.3 above, the Interconnection Request shall be approved and the Transmission Provider will provide the Interconnection Customer with an executable interconnection agreement within the timeframes established in sections 50.4.5.1 and 50.4.5.2 below. If the proposed interconnection fails any of the supplemental review screens and the Interconnection Customer does not withdraw its Interconnection Request, it shall continue to be evaluated under the section ~~351~~ Study Process consistent with section 50.4.5.3 below.

50.4.5.1 If the proposed interconnection passes the supplemental screens in sections 50.4.4.1, 50.4.4.2, and 50.4.4.3 above and does not require construction of facilities by the Transmission Provider on its own system, the interconnection agreement shall be provided within ten Business Days after the notification of the supplemental review results.

50.4.5.2 If interconnection facilities or minor modifications to the

Transmission Provider's system are required for the proposed interconnection to pass the supplemental screens in sections 50.4.4.1, 50.4.4.2, and 50.4.4.3 above, and the Interconnection Customer agrees to pay for the modifications to the Transmission Provider's electric system, the interconnection agreement, along with a non-binding good faith estimate for the interconnection facilities and/or minor modifications, shall be provided to the Interconnection Customer within 15 Business Days after receiving written notification of the supplemental review results.

50.4.5.3 If the proposed interconnection would require more than interconnection facilities or minor modifications to the Transmission Provider's system to pass the supplemental screens in sections 50.4.4.1, 50.4.4.2, and 50.4.4.3 above, the Transmission Provider shall notify the Interconnection Customer, at the same time it notifies the Interconnection Customer with the supplemental review results, that the Interconnection Request shall be evaluated under the section 51 Study Process unless the Interconnection Customer withdraws its Small Generating Facility.

V. SMALL GENERATION INTERCONNECTION SERVICE

51 Study Process

51.1 Applicability: The Study Process shall be used by an Interconnection Customer proposing to interconnect its Small Generating Facility with the Transmission Provider's Transmission System or Distribution System if the Small Generating Facility (1) is larger than 2 MW but no larger than 20 MW, (2) is not certified, or (3) is certified but did not pass the Fast Track Process or the 10 kW Inverter Process. Such projects shall be studied by Transmission Provider in accordance with the Cluster Study process discussed in Sections 36-48 of Transmission Provider's OATT, as further modified below for purposes of Small Generating Facilities.

~~51.2 Scoping Meeting:~~

~~51.2.1 A scoping meeting will be held within ten Business Days after the Interconnection Request is deemed complete, or as otherwise mutually agreed to by the Parties. The Transmission Provider and the Interconnection Customer will bring to the meeting personnel, including system engineers and other resources as may be reasonably required to accomplish the purpose of the meeting.~~

~~51.2.2 The purpose of the scoping meeting is to discuss the Interconnection Request and review existing studies relevant to the Interconnection Request. The Parties shall further discuss whether the Transmission Provider should perform a feasibility study or proceed directly to a system impact study, or a facilities study, or an interconnection agreement. If the Parties agree that a feasibility study should be~~

~~performed, the Transmission Provider shall provide the Interconnection Customer, as soon as possible, but not later than five Business Days after the scoping meeting, a feasibility study agreement (Appendix 6 to Attachment O of the Tariff) including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study.~~

51.2. Informational Studies for Small Generating Facilities

~~51.2.3 The scoping meeting may be omitted by mutual agreement. In order to remain in consideration for interconnection, an Interconnection Customer who has requested a feasibility study must return the executed feasibility study agreement within 15 Business Days. If the Parties agree not to perform a feasibility study, the Transmission Provider shall provide the Interconnection Customer, no later than five Business Days after the scoping meeting, a system impact study agreement (Appendix 7 to Attachment O of the Tariff) including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study.~~

Small Generating Facilities eligible for study under this Section 51 may submit a reasonable number of requests for Informational Interconnection Studies, provided that such requests shall be submitted pursuant to the procedures in Section 41 of Transmission Provider's OATT. Transmission Provider shall process such requests pursuant to Section 41.

51.3 ~~Feasibility Study:~~Scoping Meeting:

51.3.1 ~~The feasibility study shall identify any potential adverse system impacts that would result from the interconnection of the Small Generating Facility.~~A scoping meeting will be held in accordance with the procedures set forth in Section 38.4.4

and Section 42.

~~51.3.2 A deposit of the lesser of 50 percent of the good faith estimated feasibility study costs or earnest money of \$1,000 may be required from~~Transmission Provider shall provide the Interconnection Customer ~~a Cluster Study Agreement in the form of Appendix 3 consistent with the procedures set forth Section 42.1.~~

~~51.3.3 The scope of and cost responsibilities for the feasibility study are described in the attached feasibility study agreement (Appendix 6 to Attachment O of the Tariff).~~

~~51.3.4 If the feasibility study shows no potential for adverse system impacts, the Transmission Provider shall send the Interconnection Customer a facilities study agreement, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study. If no additional facilities are required, the Transmission Provider shall send the Interconnection Customer an executable interconnection agreement within five Business Days.~~

~~51.3.5 If the feasibility study shows the potential for adverse system impacts, the review process shall proceed to the appropriate system impact study(s).~~

51.4 ~~System Impact~~Cluster Study:

~~51.4.1 A system impact study shall identify and detail the electric system impacts that would result if the proposed Small Generating Facility were interconnected without project modifications or electric system modifications, focusing on the adverse system impacts identified in the feasibility study, or to study potential~~

~~impacts, including but not limited to those identified in the scoping meeting. A system impact study shall evaluate the impact of the proposed interconnection on the reliability of the electric system.~~ Except as otherwise noted in this Section 51, Transmission Provider shall study the Interconnection Request pursuant to Cluster Study procedures in Section 42, including any Cluster Re-Studies as may be required under those procedures.

51.4.2 ~~If no transmission system impact study is required, but potential electric power Distribution System adverse system impacts are identified in the scoping meeting or shown in the feasibility study, a distribution system impact study must be performed. The Transmission Provider shall send the Interconnection Customer a distribution system impact study agreement within 15 Business Days of transmittal of the feasibility study report, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study, or following the scoping meeting if no feasibility study is to be performed.~~ Interconnection Customer shall be required to pay its share of Cluster Study costs and Transmission Provider's Interconnection Facilities and Network Upgrade Costs as allocated by the Transmission Provider pursuant to Sections 39.2.2 and 39.2.3, respectively. Any invoices issued for such Cluster Study costs shall credit to Interconnection Customer any deposits or application fees paid pursuant to Section 49.

51.4.3 ~~In instances where the feasibility study or the distribution system impact study shows potential for transmission system adverse system impacts, within five Business Days following transmittal of the~~

~~feasibility study report, the Transmission Provider shall send the Interconnection Customer a transmission system impact study agreement, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study, if such a study is required.~~

~~51.4.4~~ If a transmission system impact study is not required, but electric power Distribution System adverse system impacts are shown by the feasibility study to be possible and no distribution system impact study has been conducted, the Transmission Provider shall send the Interconnection Customer a distribution system impact study agreement. ~~51.4.5~~ If the Scoping Meeting shows no potential for transmission system or Distribution System adverse system impacts, the Transmission Provider shall send the Interconnection Customer either a facilities study agreement (Appendix 8 to Attachment O of the Tariff), including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study, or an executable interconnection agreement, as applicable.

~~51.4.6~~ In order to remain under consideration for interconnection, the Interconnection Customer must return executed system impact study agreements, if applicable, within 30 Business Days.

~~51.4.7~~ A deposit of the good faith estimated costs for each system impact study may be required from the Interconnection Customer.

~~51.4.8~~ The scope of and cost responsibilities for a system impact study are described in the attached system impact study agreement.

~~51.4.9~~51.4.4 Where transmission systems and Distribution Systems have separate owners, such as is the case with transmission-dependent utilities ("TDUs") ~~—~~ whether investor-owned or not ~~—~~ the Interconnection Customer may apply to the nearest Transmission Provider (Transmission Owner, Regional Transmission Operator, or Independent Transmission Provider) providing transmission service to the TDU to request project coordination. Affected Systems shall participate in the study and provide all information necessary to prepare the study.

51.5 Facilities Study:

51.5.1 ~~Once the required system impact study(s) is completed, a system impact study report shall be prepared and transmitted to the~~Simultaneously with the delivery of the final Cluster Study Report, or Cluster Re-Study Report if any, Transmission Provider shall provide Interconnection Customer ~~along with a facilities study agreement within five Business Days, with a~~Facilities Study Agreement including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the facilities study. ~~In the case where one or both impact studies are determined to be unnecessary, a notice of the fact shall be transmitted to the Interconnection Customer within the same timeframe.~~

51.5.2 In order to remain under consideration for interconnection, or, as appropriate, in the Transmission Provider's interconnection queue, the Interconnection Customer must return the executed facilities study agreement or a request for an extension of time within 30 Business Days.

- 51.5.3 The facilities study shall specify and estimate the cost of the equipment, engineering, procurement and construction work (including overheads) needed to implement the conclusions of the Cluster Study or distribution system impact study~~(s)~~.
- 51.5.4 Design for any required Interconnection Facilities and/or Upgrades shall be performed under the facilities study agreement. The Transmission Provider may contract with consultants to perform activities required under the facilities study agreement. The Interconnection Customer and the Transmission Provider may agree to allow the Interconnection Customer to separately arrange for the design of some of the Interconnection Facilities. In such cases, facilities design will be reviewed and/or modified prior to acceptance by the Transmission Provider, under the provisions of the facilities study agreement. If the Parties agree to separately arrange for design and construction, and provided security and confidentiality requirements can be met, the Transmission Provider shall make sufficient information available to the Interconnection Customer in accordance with confidentiality and critical infrastructure requirements to permit the Interconnection Customer to obtain an independent design and cost estimate for any necessary facilities.
- 51.5.5 A deposit of the good faith estimated costs for the facilities study may be required from the Interconnection Customer.
- 51.5.6 The scope of and cost responsibilities for the facilities study are described in the attached facilities study agreement.

51.5.7 Upon completion of the facilities study, and with the agreement of the Interconnection Customer to pay for Interconnection Facilities and Upgrades identified in the facilities study, the Transmission Provider shall provide the Interconnection Customer an executable interconnection agreement within five Business Days.

51.6 Restudies:

Small Generating Facilities that are studied for Interconnection to the Transmission Provider's Transmission System pursuant to this Section 51 shall be subject to the restudy provisions in Section 42.5 and 43.5.

ATTACHMENT N

**APPENDICES TO LARGE GENERATOR INTERCONNECTION PROCEDURES
(Refer to Part IV of the Tariff)**

APPENDIX 1 INTERCONNECTION REQUEST FOR A LARGE GENERATING FACILITY

APPENDIX 2 ~~INFORMATIONAL~~ INTERCONNECTION ~~FEASIBILITY~~ STUDY REQUEST

APPENDIX 2A ~~INFORMATIONAL~~ INTERCONNECTION STUDY AGREEMENT

APPENDIX 3 ~~INTERCONNECTION SYSTEM IMPACT~~ CLUSTER STUDY AGREEMENT

APPENDIX 4 INTERCONNECTION FACILITIES STUDY AGREEMENT

APPENDIX 5 ~~OPTIONAL~~ SURPLUS INTERCONNECTION SERVICE SYSTEM IMPACT STUDY AGREEMENT

APPENDIX 6 STANDARD LARGE GENERATOR INTERCONNECTION AGREEMENT

APPENDIX 7 INTERCONNECTION PROCEDURES FOR A WIND GENERATING PLANT

APPENDIX 8 TECHNOLOGICAL ADVANCEMENT STUDY AGREEMENT

APPENDIX 1 to LGIP

INTERCONNECTION REQUEST FOR A
LARGE GENERATING FACILITY

1. The undersigned Interconnection Customer submits this request to interconnect its Large Generating Facility with Transmission Provider's Transmission System pursuant to a Tariff.
2. This Interconnection Request is for (check one):
 A proposed new Large Generating Facility.
 An increase in the generating capacity or a Material Modification of an existing Generating Facility.
 Surplus Interconnection Service.

3. The type of interconnection service requested (check one):

Energy Resource Interconnection Service
 Network Resource Interconnection Service

(Note: For Surplus Interconnection Service requests, the type of Interconnection Service requested cannot exceed the type of interconnection service already provided by the original Interconnection Customer's LGIA)

4. ~~Check here only if Interconnection Customer requesting Network Resource Interconnection Service also seeks to have its Generating Facility studied for Energy Resource Interconnection Service~~
Readiness Milestone Option selected, as specified in the LGIP, along with any supporting documentation:

(Note that if the Readiness Milestone Option in Section 38.4.1(v)d. is selected at this stage, pursuant to the LGIP, Interconnection Customer will need to either satisfy one of the other Readiness Milestone Options detailed in 38.4.1(v)a.-c., or

provide additional financial security before proceeding to a Facilities Study)

5. Interconnection Customer provides the following information:
 - a. Address or location of the proposed new Large Generating Facility site (to the extent known) or, in the case of an existing Generating Facility, the name and specific location of the existing Generating Facility;
 - b. Maximum summer at _____ degrees C and winter at _____ degrees C megawatt electrical output of the proposed new Large Generating Facility or the amount of megawatt increase in the generating capacity of an existing Generating Facility;
 - c. General description of the equipment configuration;
 - d. Commercial Operation Date (Day, Month, and Year);
 - e. Name, address, telephone number, and e-mail address of Interconnection Customer's contact person;
 - f. Approximate location of the proposed Point of Interconnection ~~-(optional)~~;
 - g. Interconnection Customer Data (set forth in Attachment A);
 - h. Primary frequency response operating range for electric storage resources; and
 - i. Requested capacity (in MW) of Interconnection Service (if lower than the Generating Facility Capacity).
 - j. For Surplus Interconnection Service: Completed Attachment B to this LGIP Appendix 1.
6. Applicable deposit amount as specified in the LGIP.

7. ~~Evidence of~~ Site Control as specified in the LGIP
(check one)
_____ ~~Is~~Evidence is attached to this Interconnection
Request
_____ ~~Will be~~Site Control deposit provided ~~at a later~~
~~date~~ in accordance with this LGIP

8. This Interconnection Request shall be submitted to the
representative indicated below:
[To be completed by Transmission Provider]

9. Representative of Interconnection Customer to contact:
[To be completed by Interconnection Customer]

10. This Interconnection Request is submitted by:

Name of Interconnection Customer: _____

By (signature): _____

Name (type or print): _____

Title: _____

Date: _____

**Attachment A to Appendix 1
Interconnection Request**

LARGE GENERATING FACILITY DATA

UNIT RATINGS

kVA _____ °F _____ Voltage _____
 Power Factor _____
 Speed (RPM) _____ Connection (e.g. Wye) _____
 Short Circuit Ratio _____ Frequency, Hertz _____
 Stator Amperes at Rated kVA _____ Field Volts _____
 Max Turbine MW _____ °F _____

Primary frequency response operating range for electric storage resources:
 Minimum State of Charge: _____
 Maximum State of Charge: _____

COMBINED TURBINE-GENERATOR-EXCITER INERTIA DATA

Inertia Constant, H = _____ kW sec/kVA
 Moment-of-Inertia, WR² = _____ lb. ft.²

REACTANCE DATA (PER UNIT-RATED KVA)

	DIRECT AXIS	QUADRATURE AXIS
Synchronous <u>—</u> saturated	X _{dv} _____	X _{qv} _____
Synchronous <u>—</u> unsaturated	X _{di} _____	X _{qi} _____
Transient <u>—</u> saturated	X' _{dv} _____	X' _{qv} _____
Transient <u>—</u> unsaturated	X' _{di} _____	X' _{qi} _____
Subtransient <u>—</u> saturated	X" _{dv} _____	X" _{qv} _____

Subtransient <u>—</u> <u>—</u> unsaturated	X" di	_____	X" qi	_____
Negative Sequence <u>—</u> <u>—</u> saturated	X2v	_____		
Negative Sequence <u>—</u> <u>—</u> unsaturated	X2i	_____		
Zero Sequence <u>—</u> <u>—</u> saturated	X0v	_____		
Zero Sequence <u>—</u> <u>—</u> unsaturated	X0i	_____		
Leakage Reactance	X1m	_____		

FIELD TIME CONSTANT DATA (SEC)

Open Circuit	T' do	_____	T' qo	_____
Three-Phase Short Circuit Transient	T' d3	_____	T' q	_____
Line to Line Short Circuit Transient	T' d2	_____		
Line to Neutral Short Circuit Transient	T' d1	_____		
Short Circuit Subtransient	T" d	_____	T" q	_____
Open Circuit Subtransient	T" do	_____	T" qo	_____

ARMATURE TIME CONSTANT DATA (SEC)

Three Phase Short Circuit	Ta3	_____
Line to Line Short Circuit	Ta2	_____
Line to Neutral Short Circuit	Ta1	_____

NOTE: If requested information is not applicable, indicate by marking "N/A."

**MW CAPABILITY AND PLANT CONFIGURATION
LARGE GENERATING FACILITY DATA**

ARMATURE WINDING RESISTANCE DATA (PER UNIT)

Positive	R1	_____
Negative	R2	_____
Zero	R0	_____

Rotor Short Time Thermal Capacity $I_2^{2t} =$ _____
 Field Current at Rated kVA, Armature Voltage and PF = _____
 _____ amps

Field Current at Rated kVA and Armature Voltage, 0 PF = _____ amps
 Three Phase Armature Winding Capacitance = _____ microfarad
 Field Winding Resistance = _____ ohms _____ °C
 Armature Winding Resistance (Per Phase) = _____ ohms _____ °C

CURVES

Provide Saturation, Vee, Reactive Capability, Capacity Temperature Correction curves. Designate normal and emergency Hydrogen Pressure operating range for multiple curves.

GENERATOR STEP-UP TRANSFORMER DATA RATINGS

Capacity Self-cooled/
 Maximum Nameplate
 _____ / _____ kVA

Voltage Ratio(Generator Side/System side/Tertiary)
 _____ / _____
 kV

Winding Connections (Low V/High V/Tertiary V (Delta or Wye))
 _____ / _____

Fixed Taps Available

Present Tap Setting

IMPEDANCE

Positive Z₁ (on self-cooled kVA rating) _____ % _____
 X/R

Zero Z₀ (on self-cooled kVA rating) _____ % _____
 X/R

EXCITATION SYSTEM DATA

Identify appropriate IEEE model block diagram of excitation system and power system stabilizer (PSS) for computer representation in power system stability simulations and the corresponding excitation system and PSS constants for use in the model.

GOVERNOR SYSTEM DATA

Identify appropriate IEEE model block diagram of governor system for computer representation in power system stability simulations and the corresponding governor system constants for use in the model.

WIND GENERATORS

Number of generators to be interconnected pursuant to this Interconnection Request: _____

Elevation: _____ Single Phase _____ Three Phase
Phase

Inverter manufacturer, model name, number, and version:

List of adjustable set-points for the protective equipment or software:

Note: A completed General Electric Company Power Systems Load Flow (PSLF) data sheet or other compatible formats, such as IEEE and PTI power flow models, must be supplied with the Interconnection Request. If other data sheets are more appropriate to the proposed device, then they shall be provided and discussed at Scoping Meeting.

INDUCTION GENERATORS

- (*) Field Volts: _____
- (*) Field Amperes: _____
- (*) Motoring Power (kW): _____

- (*) Neutral Grounding Resistor (If Applicable): _____
- (*) I_2^2t or K (Heating Time Constant): _____
- (*) Rotor Resistance: _____
- (*) Stator Resistance: _____
- (*) Stator Reactance: _____
- (*) Rotor Reactance: _____
- (*) Magnetizing Reactance: _____
- (*) Short Circuit Reactance: _____
- (*) Exciting Current: _____
- (*) Temperature Rise: _____
- (*) Frame Size: _____
- (*) Design Letter: _____
- (*) Reactive Power Required In Vars (No Load): _____
- (*) Reactive Power Required In Vars (Full Load): _____
- (*) Total Rotating Inertia, H: _____ Per Unit on
KVA Base

Note: Please consult Transmission Provider prior to submitting the Interconnection Request to determine if the information designated by (*) is required

**Attachment B to Appendix 1
Interconnection Request**

**Supplemental Information for Surplus Interconnection
Service Requests**

Consistent with Transmission Provider's Open Access Transmission Tariff ("OATT") Section 38.3 and implementing business practices, Surplus Interconnection Service may be requested.

I. SUBMITTING A SURPLUS INTERCONNECTION SERVICE REQUEST

Interconnection Customers shall request Surplus Interconnection Service by submitting this completed LGIP Appendix 1 (including Attachments) to the person or department noted in the Transmission Provider's currently-effective Surplus Interconnection Business Practice posted on OASIS along with any other additional technical information that may be required to process the Surplus Interconnection Service request.

II. ONE-LINE DIAGRAMS, DYNAMIC STUDY MODELS

An Interconnection Customer requesting Surplus Interconnection Service shall include the following information with a completed LGIP Appendix 1:

- ~~A.~~ A. A detailed one line diagram demonstrating the interaction between the existing and new generators and containing:
 - ~~o~~ o Maximum Nameplate MW
 - ~~o~~ o Generator make, model and specifications
 - ~~o~~ o Power Factor
 - ~~o~~ o Number of transformers
 - ~~o~~ o Transformer sizes, impedances and winding configurations
 - ~~o~~ o Collector system lengths and impedances

- ~~B.~~ B. Dynamic Stability Study Model ~~--~~ -- A WECC approved PSSE standard model in version 33 and above as well as a detailed user written model if

the generating facility is renewable generation

Transmission Provider will notify the original interconnection customer of any technical information it will require for the existing generator in order to perform the Surplus Interconnection Service analysis.

III. Information about Parties to the Surplus Interconnection Service Utilization or Transfer

Section 1: About Original Interconnection Customer		
a	Original Interconnection Customer Queue number	
b	Company name	
c	Customer Contact Name	
d	Project Name	
e	Customer Mailing Address	
F	Customer Phone Number and Email	
Section 2: About Surplus Interconnection Customer		
b	Company name	
c	Contact Name	
d	Project Name	
e	Mailing Address	
f	Phone Number and Email	
g	Affiliate of Original Interconnection Customer? (if No, see Sec.3(d))	
h	Expected Commercial Operation Date	
Section 3: Description of Surplus Service Request		
a	Describe request for Surplus Interconnection Service. Description of availability and plans for surplus; explain why surplus capacity is not being used by Original Interconnection Customer	
b	Amount of Surplus	

	requested (MW)	
c	Date of Surplus request	
d	If Answer to Sec. 2(g)) is No, confirmation by Original Interconnection Customer that neither it nor Affiliates seek this Surplus service	
e	When Surplus is available for use	
f	Describe any conditions under which Surplus may be used (Excludes other conditions/requirements from Transmission Provider)	

IV. Verifications and Other Conditions

Regardless of the submitting entity, this request for Surplus Interconnection Service is supported by both Original Interconnection Customer (as defined in Part III to this LGIP Appendix 1, Attachment B) and Surplus Interconnection Customer (as defined in Part III to this LGIP Appendix 1, Attachment B), and both customers agree to cooperate with and provide additional information to enable Transmission Provider to evaluate and, if necessary study, the Surplus Interconnection Service request.

Any and all terms of surplus service will be subject to a later Surplus Interconnection Agreement to be executed by the Original Interconnection Customer, Surplus Interconnection Customer, and Transmission Provider, to be filed at the Commission.

Both Original Interconnection Customer and Surplus Interconnection Customer acknowledge that, pursuant to Commission requirements, this is an expedited process and that this Surplus Interconnection Service request may be deemed withdrawn if certain action is not timely taken pursuant to Transmission Provider's OATT Section 38.3.

Original Interconnection Customer

Signed: _____

Name: _____

Title: _____

Date: _____

Surplus Interconnection Customer

Signed: _____

Name: _____

Title: _____

Date: _____

APPENDIX 2 to LGIP

INFORMATIONAL INTERCONNECTION ~~FEASIBILITY~~ STUDY AGREEMENT
QUEST

1. The undersigned Interconnection Customer submits this request for an Informational Interconnection Study pursuant to Transmission Provider's Tariff.

2. The type of interconnection service to be evaluated (check one):
_____ Energy Resource Interconnection Service
_____ Network Resource Interconnection Service

3. Check here _____ only if Network Resource Interconnection Service was selected above and Interconnection Customer also requests to have its proposed Generating Facility studied for Energy Resource Interconnection Service, for informational purposes.

4. Interconnection Customer provides the following information:
 - a. Address or location of the proposed new Large Generating Facility site to be studied (to the extent known) or, in the case of an existing Generating Facility, the name and specific location of the existing Generating Facility;

 - b. Maximum summer at _____ degrees C and winter at _____ degrees C megawatt electrical output of the proposed new Large Generating Facility or the amount of megawatt increase in the generating capacity of an existing Generating Facility;

 - c. General description of the equipment configuration;

 - d. Commercial Operation Date to be studied (Day, Month, and Year);

 - e. Name, address, telephone number, and e-mail address of Interconnection Customer's contact person;

- f. Approximate location of the proposed Point of Interconnection;
 - g. Interconnection Customer Data (set forth in Attachment A);
 - h. Primary frequency response operating range for electric storage resources; and
 - i. Requested capacity (in MW) of Interconnection Service to be studied (if lower than the Generating Facility Capacity).
5. \$10,000 study deposit amount as specified in the LGIP.
6. This Interconnection Request shall be submitted to the representative indicated below:
[To be completed by Transmission Provider]
7. Representative of Interconnection Customer to contact:
[To be completed by Interconnection Customer]
8. This Informational Interconnection Request is submitted by:

Name of Interconnection Customer:

By (signature):

Name (type or print):

Title:

Date:

Attachment A to Appendix 2
Informational Interconnection Study Request

LARGE GENERATING FACILITY DATA

UNIT RATINGS

<u>kVA</u>	<u>°F</u>	<u>Voltage</u>
<u>Power Factor</u>		
<u>Speed (RPM)</u>		<u>Connection (e.g. Wye)</u>
<u>Short Circuit Ratio</u>		<u>Frequency, Hertz</u>
<u>Stator Amperes at Rated kVA</u>		<u>Field Volts</u>
<u>Max Turbine MW</u>	<u>°F</u>	

Primary frequency response operating range for electric storage resources:
Minimum State of Charge:
Maximum State of Charge:

COMBINED TURBINE-GENERATOR-EXCITER INERTIA DATA

<u>Inertia Constant, H =</u>	<u>kW sec/kVA</u>
<u>Moment-of-Inertia, WR² =</u>	<u>lb. ft.²</u>

REACTANCE DATA (PER UNIT-RATED KVA)

	<u>DIRECT</u>	<u>QUADRATURE</u>
	<u>AXIS</u>	<u>AXIS</u>
<u>Synchronous - saturated</u>	<u>X_{dv}</u>	<u>X_{gv}</u>
<u>Synchronous - unsaturated</u>	<u>X_{di}</u>	<u>X_{gi}</u>
<u>Transient - saturated</u>	<u>X'_{dv}</u>	<u>X'_{gv}</u>
<u>Transient - unsaturated</u>	<u>X'_{di}</u>	<u>X'_{gi}</u>
<u>Subtransient - saturated</u>	<u>X"_{dv}</u>	<u>X"_{gv}</u>

Subtransient - unsaturated	X''_{di}	X''_{qi}
Negative Sequence - saturated	$X2_v$	
Negative Sequence - unsaturated	$X2_i$	
Zero Sequence - saturated	$X0_v$	
Zero Sequence - unsaturated	$X0_i$	
Leakage Reactance	Xl_m	

FIELD TIME CONSTANT DATA (SEC)

Open Circuit	T'_{do}	T'_{go}
Three-Phase Short Circuit Transient	T'_{d3}	T'_{g}
Line to Line Short Circuit Transient	T'_{d2}	
Line to Neutral Short Circuit Transient	T'_{d1}	
Short Circuit Subtransient	T''_d	T''_g
Open Circuit Subtransient	T''_{do}	T''_{go}

ARMATURE TIME CONSTANT DATA (SEC)

Three Phase Short Circuit	T_{a3}
Line to Line Short Circuit	T_{a2}
Line to Neutral Short Circuit	T_{a1}

NOTE: If requested information is not applicable, indicate by marking "N/A."

MW CAPABILITY AND PLANT CONFIGURATION
LARGE GENERATING FACILITY DATA

ARMATURE WINDING RESISTANCE DATA (PER UNIT)

Positive	R_1
Negative	R_2
Zero	R_0

Rotor Short Time Thermal Capacity $I_2^2t =$ _____
 Field Current at Rated kVA, Armature Voltage and PF = _____
 _____ amps

Field Current at Rated kVA and Armature Voltage, 0 PF =
_____ amps

Three Phase Armature Winding Capacitance =
_____ microfarad

Field Winding Resistance = _____ ohms _____ °C

Armature Winding Resistance (Per Phase) = _____ ohms _____ °C

CURVES

Provide Saturation, Vee, Reactive Capability, Capacity
Temperature Correction curves. Designate normal and
emergency Hydrogen Pressure operating range for multiple
curves.

GENERATOR STEP-UP TRANSFORMER DATA RATINGS

Capacity _____ Self-cooled/
_____ Maximum Nameplate
_____ / _____ kVA

Voltage Ratio(Generator Side/System side/Tertiary)
_____ / _____ / _____
kV

Winding Connections (Low V/High V/Tertiary V (Delta or
Wye))
_____ / _____ / _____

Fixed Taps Available

Present Tap Setting

IMPEDANCE

Positive Z_1 (on self-cooled kVA rating) _____ %
X/R

Zero Z_0 (on self-cooled kVA rating) _____ %
X/R

EXCITATION SYSTEM DATA

Identify appropriate IEEE model block diagram of excitation system and power system stabilizer (PSS) for computer representation in power system stability simulations and the corresponding excitation system and PSS constants for use in the model.

GOVERNOR SYSTEM DATA

Identify appropriate IEEE model block diagram of governor system for computer representation in power system stability simulations and the corresponding governor system constants for use in the model.

WIND GENERATORS

Number of generators to be interconnected pursuant to this Interconnection Request: _____

Elevation: _____ Single Phase _____ Three Phase _____

Inverter manufacturer, model name, number, and version: _____

List of adjustable set-points for the protective equipment or software: _____

Note: A completed General Electric Company Power Systems Load Flow (PSLF) data sheet or other compatible formats, such as IEEE and PTI power flow models, must be supplied with the Interconnection Request. If other data sheets are more appropriate to the proposed device, then they shall be provided and discussed at Scoping Meeting.

INDUCTION GENERATORS

- (*) Field Volts: _____
- (*) Field Amperes: _____
- (*) Motoring Power (kW): _____

- (*) Neutral Grounding Resistor (If Applicable):
- (*) I_2^2t or K (Heating Time Constant):
- (*) Rotor Resistance:
- (*) Stator Resistance:
- (*) Stator Reactance:
- (*) Rotor Reactance:
- (*) Magnetizing Reactance:
- (*) Short Circuit Reactance:
- (*) Exciting Current:
- (*) Temperature Rise:
- (*) Frame Size:
- (*) Design Letter:
- (*) Reactive Power Required In Vars (No Load):
- (*) Reactive Power Required In Vars (Full Load):
- (*) Total Rotating Inertia, H: Per Unit on
KVA Base

Note: Please consult Transmission Provider prior to submitting the Interconnection Request to determine if the information designated by (*) is required

APPENDIX 2A TO LGIP
INFORMATIONAL INTERCONNECTION STUDY AGREEMENT

THIS AGREEMENT is made and entered into this _____ day of _____, 20____ by and between _____, a _____ organized and existing under the laws of the State of _____, ("Interconnection Customer,") and _____ a _____ existing under the laws of the State of _____, ("Transmission Provider "). Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

RECITALS

WHEREAS, Interconnection Customer is ~~proposing to develop~~developing a Large Generating Facility or generating capacity addition to an existing Generating Facility ~~consistent with the Interconnection Request submitted by Interconnection Customer dated _____~~; and

WHEREAS, Interconnection Customer ~~desires to interconnect the Large Generating Facility~~is proposing to evaluate an interconnection with the Transmission System; and

WHEREAS, Interconnection Customer has ~~requested~~submitted to Transmission Provider ~~to perform an Informational Interconnection Feasibility Study to assess the feasibility of interconnecting the proposed Large Generating Facility to the Transmission System, and of any Affected Systems;~~Study Request; and

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein the Parties ~~agreed~~agree as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Transmission Provider's FERC-approved LGIP.
- 2.0 Interconnection Customer elects and Transmission Provider shall cause to be performed

an Informational Interconnection ~~Feasibility~~ Study consistent with Section ~~41.041~~ of this LGIP in accordance with the Tariff.

- 3.0 The scope of the Informational Interconnection ~~Feasibility~~ Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The ~~Interconnection Feasibility Study shall be based on the technical information provided by Interconnection Customer in the Interconnection Request, as may be modified as the result of the Scoping Meeting. Transmission Provider reserves the right to request additional technical information from Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection Feasibility Study and as designated in accordance with Section 38.4.4 of the LGIP. If, after the designation of the Point of Interconnection pursuant to Section 38.4.4 of the LGIP, Interconnection Customer modifies its Interconnection Request pursuant to Section 39.4, the time to complete the Interconnection Feasibility Study may be extended.~~Informational Interconnection Study shall be performed solely for informational purposes and is not binding on either Party.
- 5.0 The ~~Interconnection Feasibility Study report shall provide the following information:~~Informational Interconnection Study shall be based on the technical information provided by Interconnection Customer in the Informational Interconnection Study Request, as may be modified as the result of the optional scoping meeting. Transmission Provider reserves the right to request additional technical information from Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Informational Interconnection Study. If Interconnection Customer modifies its Informational Interconnection Study Request, the

time to complete the Informational Interconnection Study may be extended.

5.0 The Informational Interconnection Study Report shall provide the following information:

- preliminary identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection;
- preliminary identification of any thermal overload or voltage limit violations resulting from the interconnection; and
- preliminary description and non-bonding estimated cost of facilities required to interconnect the Large Generating Facility to the Transmission System and to address the identified short circuit and power flow issues.

6.0 Interconnection Customer shall provide a deposit of \$10,000 for the performance of the Informational Interconnection-~~Feasibility~~ Study.

Upon receipt of the Informational Interconnection-~~Feasibility~~ Study Transmission Provider shall charge and Interconnection Customer shall pay the actual costs of the Informational Interconnection-~~Feasibility~~ Study.

Any difference between the deposit and the actual cost of the study shall be paid by or refunded to Interconnection Customer, as appropriate.

7.0 Miscellaneous. The Informational Interconnection-~~Feasibility~~ Study Agreement shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, and that are consistent with regional practices, Applicable Laws and

Regulations, and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of the LGIP and the LGIA.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

[Insert name of Transmission Provider or Transmission Owner, if applicable]

By: _____

Title: _____

Date: _____

[Insert name of Interconnection Customer]

By: _____

Title: _____

Date: _____

Attachment A to Appendix 2A
Informational Interconnection-~~Feasibility~~
Study Agreement

ASSUMPTIONS USED IN CONDUCTING THE
INFORMATIONAL INTERCONNECTION ~~FEASIBILITY~~ STUDY

The Informational Interconnection-~~Feasibility~~ Study will be based upon the information set forth in the Informational Interconnection Study Request and agreed upon in the ~~Scoping Meeting~~optional scoping meeting held on _____ :

Designation of Point of Interconnection and configuration to be studied.

Designation of alternative Point(s) of Interconnection and configuration.

[Above assumptions to be completed by the Interconnection Customer and other assumptions to be provided by the Interconnection Customer and Transmission Provider]

APPENDIX 3 TO LGIP
~~INTERCONNECTION SYSTEM IMPACT~~CLUSTER STUDY AGREEMENT
~~Inclusive of requests for~~
~~Surplus Interconnection Service~~

THIS AGREEMENT is made and entered into this _____ day of _____, 20____ by and between _____, a _____ organized and existing under the laws of the State of _____, ("Interconnection Customer,") and _____ a _____ existing under the laws of the State of _____, ("Transmission Provider "). Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

RECITALS

~~{CHOOSE ONE OF THE FOLLOWING TWO, THEN DELETE THE OTHER}~~

WHEREAS, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition (or modification) to an existing Generating Facility consistent with the Interconnection Request submitted by Interconnection Customer dated _____; and

~~{OR}~~

~~**WHEREAS**, in accordance with a request submitted to the Transmission Provider on _____ Interconnection Customer is proposing to utilize Surplus Interconnection Service associated with a Large Generating Facility operating under an LGIA between _____ and Transmission Provider dated _____; and~~

WHEREAS, Interconnection Customer desires to interconnect the Large Generating Facility or generating capacity addition (or modification) to an existing Generating Facility with the Transmission System; and

~~{CHOOSE ONE OF THE FOLLOWING TWO, THEN DELETE THE OTHER}~~

~~**WHEREAS**, Transmission Provider has completed an Interconnection Feasibility Study (the "Feasibility Study") and provided the results of said study to Interconnection Customer; and~~

{OR}

~~WHEREAS, Parties have agreed to forego an Interconnection Feasibility Study (the "Feasibility Study"); and~~

WHEREAS, Interconnection Customer has requested Transmission Provider to perform ~~an Interconnection System Impact~~ Cluster Study to assess the impact of interconnecting the Large Generating Facility or generating capacity addition (or modification) to an existing Generating Facility to the Transmission System ~~(including, as applicable utilization of Surplus Interconnection Service)~~, and of any Affected Systems;

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Transmission Provider's FERC-approved LGIP.
- 2.0 Interconnection Customer elects and Transmission Provider shall cause to be performed ~~an Interconnection System Impact~~ Cluster Study consistent with Section ~~38 or 42.042~~ of this LGIP in accordance with the Tariff and any associated Business Practices as posted by Transmission provider on its OASIS page.
- 3.0 The scope of the ~~Interconnection System Impact~~ Cluster Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The ~~Interconnection System Impact~~ Cluster Study will be based upon the ~~results of the Interconnection Feasibility Study and the technical~~ information provided by Interconnection Customer in the Interconnection Request, subject to any modifications in accordance with Section 39.4 of the LGIP. Transmission Provider reserves the right to request additional technical

information from Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the ~~Interconnection Customer System Impact~~Cluster Study. If Interconnection Customer modifies its ~~designated Point of Interconnection,~~ Interconnection Request, or the technical information provided therein ~~is modified,~~ the time to complete the ~~Interconnection System Impact~~Cluster Study may be extended.

5.0 The ~~Interconnection System Impact~~Cluster Study report shall provide the following information:

- identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection;
- identification of any thermal overload or voltage limit violations resulting from the interconnection;
- identification of any instability or inadequately damped response to system disturbances resulting from the interconnection and
- description and non-binding, good faith estimated cost of facilities required to interconnect the Large Generating Facility to the Transmission System and to address the identified short circuit, instability, and power flow issues.

6.0 Interconnection Customer ~~shall provide a deposit of \$50,000 for the performance of the Interconnection System Impact Study.~~ 's deposit, paid pursuant to Section 38.1 (or, Attachment W, as may be applicable), shall be used to pay Interconnection Customer's share of Cluster Study costs allocated pursuant to Section 39.3.3. Transmission Provider's good faith estimate for the time of completion of

the ~~Interconnection System Impact~~Cluster Study is [insert date]. ~~In the case of Surplus Interconnection Requests, such deposit shall be the same \$10,000 provided by the Interconnection Customer as part of the Surplus Interconnection Service Request.~~

Upon receipt of the ~~Interconnection System Impact~~Cluster Study, Transmission Provider shall charge and Interconnection Customer shall pay ~~the~~its actual allocable costs of the ~~Interconnection System Impact~~Cluster Study.

Any difference between the deposit and the actual cost of the study shall be paid by or refunded to Interconnection Customer, as appropriate. As provided in Section 48.3 of the LGIP, Interconnection Customer has thirty (30) Calendar Days of receipt of an invoice from Transmission Provider to pay any undisputed costs. If invoices are not paid within thirty (30) Calendar Days of receipt of an invoice, Transmission Provider shall draw upon the security and deposits provided to settle all accounts, which shall include any offsets of amounts due and owing by Transmission Provider. After the final invoice is paid and all accounts are settled, Transmission Provider shall refund all remaining security and deposits.

- 7.0 Miscellaneous. The ~~Interconnection System Impact~~Cluster Study Agreement shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, that are consistent with regional practices, Applicable Laws and Regulations and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of the LGIP and the LGIA.]

IN WITNESS THEREOF, the Parties have caused this Agreement

to be duly executed by their duly authorized officers or agents on the day and year first above written.

[Insert name of Transmission Provider or Transmission Owner, if applicable]

By: _____

Title: _____

Date: _____

[Insert name of Interconnection Customer]

By: _____

Title: _____

Date: _____

Attachment A To Appendix 3
~~Interconnection System Impact~~
Cluster Study Agreement

ASSUMPTIONS USED IN CONDUCTING THE
~~INTERCONNECTION SYSTEM IMPACT~~CLUSTER STUDY

The ~~Interconnection System Impact~~Cluster Study will be based upon the results of the information set forth in the Interconnection Feasibility Study Request and results of applicable prior Interconnection Studies, subject to any modifications in accordance with Section 39.4 ~~or 38.3 (as applicable)~~ of the LGIP, and the following assumptions:

Designation of Point of Interconnection and configuration to be studied.

~~Designation of alternative Point(s) of Interconnection and configuration.~~

~~Please select type of Interconnection Service:~~

- ~~A proposed new Large Generating Facility.~~
 - ~~Energy Resource Interconnection Service~~
 - ~~Network Resource Interconnection Service~~

- ~~Surplus Interconnection Service~~

~~Note: For Surplus Interconnection Service requests, the request cannot exceed the type of Interconnection Service already provided by the original Interconnection Customer's LGIA.~~

[Above assumptions to be completed by Interconnection Customer and other assumptions to be provided by Interconnection Customer and Transmission Provider]

**APPENDIX 4 TO LGIP
INTERCONNECTION FACILITIES STUDY AGREEMENT**

THIS AGREEMENT is made and entered into this _____ day of _____, 20____ by and between _____, a _____ organized and existing under the laws of the State of _____, ("Interconnection Customer,") and _____ a _____ existing under the laws of the State of _____, ("Transmission Provider "). Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

RECITALS

WHEREAS, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by Interconnection Customer dated _____; and

WHEREAS, Interconnection Customer desires to interconnect the Large Generating Facility with the Transmission System;

WHEREAS, Transmission Provider has completed ~~an Interconnection System Impact Study (the "System Impact Study")~~ a Cluster Study and provided the results of said study to Interconnection Customer; and

WHEREAS, Interconnection Customer has requested Transmission Provider to perform an Interconnection Facilities Study to specify and estimate the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the Interconnection System Impact Study in accordance with Good Utility Practice to physically and electrically connect the Large Generating Facility to the Transmission System.

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have

the meanings indicated in Transmission Provider's FERC-approved LGIP.

- 2.0 Interconnection Customer elects and Transmission Provider shall cause an Interconnection Facilities Study consistent with Section 43.0 of this LGIP to be performed in accordance with the Tariff.

2.1 Interconnection Customer shall provide (a) a demonstration of Site Control and (b) a Readiness Milestone Option or additional financial security payment in accordance with Section 43.1 of the Tariff.

- 3.0 The scope of the Interconnection Facilities Study shall be subject to the assumptions set forth in Attachment A and the data provided in Attachment B to this Agreement.
- 4.0 The Interconnection Facilities Study report (i) shall provide a description, estimated cost of (consistent with Attachment A), schedule for required facilities to interconnect the Large Generating Facility to the Transmission System and (ii) shall address the short circuit, instability, and power flow issues identified in the Interconnection System Impact Study.
- 5.0 Interconnection Customer shall ~~provide a deposit of \$100,000 for the performance~~ pay the actual costs of the Interconnection Facilities Study. The time for completion of the Interconnection Facilities Study is specified in Attachment A.

Transmission Provider shall invoice Interconnection Customer on a monthly basis for the work to be conducted on the Interconnection Facilities Study each month. Interconnection Customer shall pay invoiced amounts within thirty (30) Calendar Days of receipt of invoice. Transmission Provider shall continue to hold the amounts on deposit until settlement of the final invoice.

6.0 Miscellaneous. The Interconnection Facility Study Agreement shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, and that are consistent with regional practices, Applicable Laws and Regulations, and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of the LGIP and the LGIA.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

[Insert name of Transmission Provider or Transmission Owner, if applicable]

By: _____

Title: _____

Date: _____

[Insert name of Interconnection Customer]

By: _____

Title: _____

Date: _____

**Attachment A To Appendix 4
Interconnection Facilities
Study Agreement**

**INTERCONNECTION CUSTOMER SCHEDULE ELECTION FOR CONDUCTING
THE INTERCONNECTION FACILITIES STUDY**

Transmission Provider shall use Reasonable Efforts to complete the study and issue a draft Interconnection Facilities Study report to Interconnection Customer within the following number of days after of receipt of an executed copy of this Interconnection Facilities Study Agreement:

_____ ninety (90) Calendar Days with no more than a +/- 20 percent cost estimate contained in the report, or

_____ one hundred eighty (180) Calendar Days with no more than a +/- 10 percent cost estimate contained in the report.

**Attachment B to Appendix 4
Interconnection Facilities
Study Agreement**

**DATA FORM TO BE PROVIDED BY INTERCONNECTION CUSTOMER WITH
THE
INTERCONNECTION FACILITIES STUDY AGREEMENT**

Provide location plan and simplified one-line diagram of the plant and station facilities. For staged projects, please indicate future generation, transmission circuits, etc.

One set of metering is required for each generation connection to the new ring bus or existing Transmission Provider station. Number of generation connections:

On the one line diagram indicate the generation capacity attached at each metering location. (Maximum load on CT/PT)

On the one line diagram indicate the location of auxiliary power. (Minimum load on CT/PT) Amps

Will an alternate source of auxiliary power be available during CT/PT maintenance?

_____ Yes _____ No

Will a transfer bus on the generation side of the metering require that each meter set be designed for the total plant generation?

_____ Yes _____ No (Please indicate on one line diagram).

What type of control system or PLC will be located at Interconnection Customer's Large Generating Facility?

What protocol does the control system or PLC use?

Please provide a 7.5-minute quadrangle of the site. Sketch the plant, station, transmission line, and property line.

Physical dimensions of the proposed interconnection station:

Bus length from generation to interconnection station:

Line length from interconnection station to Transmission Provider's transmission line.

Tower number observed in the field. (Painted on tower leg)*

Number of third party easements required for transmission lines*:

* To be completed in coordination with Transmission Provider.

Is the Large Generating Facility in the Transmission Provider's service area?

Yes No Local provider: _____

Please provide proposed schedule dates:

Begin Construction Date: _____

Generator step-up transformer
receives back feed power Date: _____

Generation Testing Date: _____

Commercial Operation Date: _____

APPENDIX 5 TO LGIP

~~OPTIONAL~~ SURPLUS INTERCONNECTION SERVICE SYSTEM IMPACT STUDY
AGREEMENT

THIS AGREEMENT is made and entered into this _____ day of _____, 20____ by and between _____, a _____ organized and existing under the laws of the State of _____, ("Interconnection Customer,") and _____ a _____ existing under the laws of the State of _____, ("Transmission Provider "). Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

RECITALS

WHEREAS, in accordance with a request submitted to the Transmission Provider on _____ Interconnection Customer is proposing to ~~develop~~ utilize Surplus Interconnection Service associated with a Large Generating Facility ~~or generating capacity addition~~ operating under an LGIA between _____ ("Original Interconnection Customer") and Transmission Provider dated _____ ;

WHEREAS, Interconnection Customer desires to interconnect the Large Generating Facility to an existing Generating Facility ~~consistent with the Interconnection Request submitted by Interconnection Customer dated _____ ;~~ with the Transmission System; and

WHEREAS, Interconnection Customer ~~is proposing to establish an interconnection with the Transmission System; and~~

~~WHEREAS, Interconnection Customer has submitted to Transmission Provider an Interconnection Request; and~~

~~WHEREAS, on or after the date when Interconnection Customer receives the Interconnection System Impact Study results, Interconnection Customer has further requested that~~ has requested Transmission Provider ~~prepare an Optional Interconnection Study;~~ to perform a Surplus Interconnection Service System Impact Study to assess the impact of

utilization of Surplus Interconnection Service on the Transmission System, and any Affected Systems.

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein the Parties ~~agree~~agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Transmission Provider's FERC-approved LGIP.
- 2.0 Interconnection Customer elects and Transmission Provider shall cause ~~an Optional~~to be performed a Surplus Interconnection Service System Impact Study consistent with Section ~~45.0 of this LGIP to be performed in accordance with the Tariff~~38 of this LGIP and any associated Business Practices as posted by Transmission provider on its OASIS page.
- 3.0 The scope of the ~~Optional~~Surplus Interconnection Service System Impact Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The ~~Optional Interconnection Study shall be performed solely for informational purposes.~~Surplus Interconnection Service System Impact Study will be performed based on the requirements of Section 38 of Transmission Provider's Tariff and the technical information provided by Interconnection Customer in the Interconnection Request, subject to any modifications in accordance with Section 39.4 of the LGIP. Transmission Provider reserves the right to request additional technical information from Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Surplus Interconnection Service System Impact Study. If Interconnection Customer modifies its Interconnection Request, or the technical information provided therein is modified, the time to complete the Surplus Interconnection

Service System Impact Study may be extended.

~~5.0 The Optional Interconnection Study report shall provide a sensitivity analysis based on the assumptions specified by Interconnection Customer in Attachment A to this Agreement. The Optional Interconnection Study will identify Transmission Provider's Interconnection Facilities and the Network Upgrades, and the estimated cost thereof, that may be required to provide transmission service or interconnection service based upon the assumptions specified by Interconnection Customer in Attachment A.~~
5.0 The Surplus Interconnection Service System Impact Study report shall provide the following information:

- identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection;
- identification of any thermal overload or voltage limit violations resulting from the interconnection;
- identification of any instability or inadequately damped response to system disturbances resulting from the interconnection and
- description and non-binding, good faith estimated cost of facilities required to interconnect the Large Generating Facility to the Transmission System and to address the identified short circuit, instability, and power flow issues.

6.0 ~~Interconnection Customer shall provide a deposit of \$10,000 for the performance of the Optional Interconnection Study.~~ Transmission Provider's good faith estimate for the time of completion of the ~~Optional~~ System Impact Study is [insert date]. ~~Upon receipt of the Optional Interconnection Study,~~ Interconnection Customer's deposit for the Surplus Interconnection Service System Impact Study shall

be the same \$10,000 provided by the Interconnection Customer as part of the Surplus Interconnection Service Request.

Transmission Provider shall charge and Interconnection Customer shall pay the actual costs of the ~~Optional~~Interconnection System Impact Study.

Any difference between the ~~initial payment~~deposit and the actual cost of the study shall be paid by or refunded to Interconnection Customer, as appropriate.

7.0 Miscellaneous. The ~~Optional~~-Interconnection System Impact Study Agreement shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, ~~and~~ that are consistent with regional practices, Applicable Laws and Regulations, and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of the LGIP and the LGIA.]

IN WITNESS ~~WHEREOF~~THEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

[Insert name of Transmission Provider or Transmission

Owner, if applicable]

By: _____

Title: _____

Date: _____

[Insert name of Interconnection Customer]

By: _____

Title: _____

Date: _____

Attachment A To Appendix 5
Surplus Interconnection Service System Impact
Study Agreement

ASSUMPTIONS USED IN CONDUCTING THE
SURPLUS INTERCONNECTION SERVICE SYSTEM IMPACT STUDY

The Surplus Interconnection Service System Impact Study will be based upon the results of the Original Interconnection Customer's system impact study (if any) or Cluster Study, and the following assumptions:

Existing Point of Interconnection of Original Interconnection Customer:

Note: For Surplus Interconnection Service requests, the request cannot exceed the type of Interconnection Service already provided by the Original Interconnection Customer's LGIA.

[Above assumptions to be completed by Interconnection Customer and other assumptions to be provided by Interconnection Customer and Transmission Provider]

=====

Appendix 6 to the Standard Large
Generator Interconnection Procedures

STANDARD LARGE GENERATOR

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STANDARD LARGE GENERATOR INTERCONNECTION AGREEMENT

THIS STANDARD LARGE GENERATOR INTERCONNECTION AGREEMENT ("Agreement") is made and entered into this _____ day of _____, 20__ by and between _____, a _____ organized and existing under the laws of the State/Commonwealth of _____ ("Interconnection Customer" with a Large Generating Facility), and _____ a _____ organized and existing under the laws of the State/Commonwealth of _____ ("Transmission Provider and/or Transmission Owner"). Interconnection Customer and Transmission Provider each may be referred to as a "Party" or collectively as the "Parties."

Recitals

WHEREAS, Transmission Provider operates the Transmission System; and

WHEREAS, Interconnection Customer intends to own, lease and/or control and operate the Generating Facility identified as a Large Generating Facility in Appendix C to this Agreement; and,

WHEREAS, Interconnection Customer and Transmission Provider have agreed to enter into this Agreement for the purpose of interconnecting the Large Generating Facility with the Transmission System;

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein, it is agreed:

When used in this Standard Large Generator Interconnection Agreement, terms with initial capitalization that are not defined in Article 1 shall have the meanings specified in the Article in which they are used or the Open Access Transmission Tariff (Tariff).

Article 1. Definitions

Adverse System Impact shall mean the negative effects due to technical or operational limits on conductors or equipment being exceeded that may compromise the safety and reliability of the electric system.

Affected System shall mean an electric system other than the Transmission Provider's Transmission System that may be affected by the proposed interconnection.

Affected System Operator shall mean the entity that operates an Affected System.

Affiliate shall mean, with respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

Ancillary Services shall mean those services that are necessary to support the transmission of capacity and energy from resources to loads while maintaining reliable operation of the Transmission Provider's Transmission System in accordance with Good Utility Practice.

Applicable Laws and Regulations shall mean all duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

Applicable Reliability Council shall mean the reliability council applicable to the Transmission System to which the Generating Facility is directly interconnected.

Applicable Reliability Standards shall mean the requirements and guidelines of NERC, the Applicable Reliability Council, and the Control Area of the Transmission System to which the Generating Facility is directly interconnected.

Base Case shall mean the base case power flow, short circuit, and stability data bases used for the Interconnection Studies by the Transmission Provider or Interconnection Customer.

Breach shall mean the failure of a Party to perform or

observe any material term or condition of the Standard Large Generator Interconnection Agreement.

Breaching Party shall mean a Party that is in Breach of the Standard Large Generator Interconnection Agreement.

Business Day shall mean Monday through Friday, excluding Federal Holidays.

Calendar Day shall mean any day including Saturday, Sunday or a Federal Holiday.

Cluster shall mean a group of Interconnection Requests (one or more) that are studied together for the purpose of conducting the Cluster Study.

Cluster Area shall mean the areas of the Transmission Provider's Transmission System that are included together in a Cluster, as described further in Section 42.4 of the LGIP.

Cluster Request Window shall have the meaning set forth in Section 39.2.1 of the LGIP.

Cluster Re-Study shall mean a restudy of a Cluster Study conducted pursuant to Section 42.4 of the LGIP.

Cluster Re-Study Report shall mean the report issued following completion of a Cluster Re-Study pursuant to Section 42.4 of the LGIP.

Cluster Re-Study Meeting shall mean the meeting held to discuss the results of a Cluster Re-Study pursuant to Section 42.4 of the LGIP.

Cluster Study shall mean an Interconnection Study evaluating one or more Interconnection Requests within a Cluster as described in more detail in Section 42.4 of the LGIP.

Cluster Study Agreement shall mean the form of agreement contained in Appendix 3 to the Standard Large Generator Interconnection Procedures for conducting the Cluster Study.

Cluster Study Report shall mean the report issued following completion of a Cluster Study pursuant to Section 42.4 of the LGIP.

Cluster Study Report Meeting shall mean the meeting held to discuss the results of a Cluster Study pursuant to Section 42.4 of the LGIP.

Clustering shall mean the process whereby a group of Interconnection Requests is studied together, instead of serially, ~~for the purpose as described in more detail in Section 42 of conducting the Interconnection System Impact Study~~ the LGIP.

Commercial Operation shall mean the status of a Generating Facility that has commenced generating electricity for sale, excluding electricity generated during Trial Operation.

Commercial Operation Date of a unit shall mean the date on which the Generating Facility commences Commercial Operation as agreed to by the Parties pursuant to Appendix E to the Standard Large Generator Interconnection Agreement.

Confidential Information shall mean any confidential, proprietary or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy or compilation relating to the present or planned business of a Party, which is designated as confidential by the Party supplying the information, whether conveyed orally, electronically, in writing, through inspection, or otherwise.

Control Area shall mean an electrical system or systems bounded by interconnection metering and telemetry, capable of controlling generation to maintain its interchange schedule with other Control Areas and contributing to frequency regulation of the interconnection. A Control Area must be certified by the Applicable Reliability Council.

Customer Engagement Window shall have the meaning set forth in Section 42.2 of the LGIP.

Default shall mean the failure of a Breaching Party to cure its Breach in accordance with Article 17 of the Standard Large Generator Interconnection Agreement.

Dispute Resolution shall mean the procedure for resolution of a dispute between the Parties in which they will first attempt to resolve the dispute on an informal basis.

Distribution System shall mean the Transmission Provider's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which distribution systems operate differ among areas.

Distribution Upgrades shall mean the additions, modifications, and upgrades to the Transmission Provider's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Generating Facility and render the transmission service necessary to effect Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

Effective Date shall mean the date on which the Standard Large Generator Interconnection Agreement becomes effective upon execution by the Parties subject to acceptance by FERC, or if filed unexecuted, upon the date specified by FERC.

Emergency Condition shall mean a condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (2) that, in the case of a Transmission Provider, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to Transmission Provider's Transmission System, Transmission Provider's Interconnection Facilities or the electric systems of others to which the Transmission Provider's Transmission System is directly connected; or (3) that, in the case of Interconnection Customer, is imminently likely (as determined in a non-discriminatory

manner) to cause a material adverse effect on the security of, or damage to, the Generating Facility or Interconnection Customer's Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions; provided, that Interconnection Customer is not obligated by the Standard Large Generator Interconnection Agreement to possess black start capability.

Energy Resource Interconnection Service shall mean an Interconnection Service that allows the Interconnection Customer to connect its Generating Facility to the Transmission Provider's Transmission System to be eligible to deliver the Generating Facility's electric output using the existing firm or nonfirm capacity of the Transmission Provider's Transmission System on an as available basis. Energy Resource Interconnection Service in and of itself does not convey transmission service.

Engineering & Procurement (E&P) Agreement shall mean an agreement that authorizes the Transmission Provider to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection in order to advance the implementation of the Interconnection Request.

Environmental Law shall mean Applicable Laws or Regulations relating to pollution or protection of the environment or natural resources.

Federal Power Act shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a et seq.

FERC shall mean the Federal Energy Regulatory Commission (Commission) or its successor.

Financial Security shall mean any of the forms of collateral or security listed in Section 2 of the Creditworthiness Procedures included in Attachment L to this Tariff.

Force Majeure shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or

restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure event does not include acts of negligence or intentional wrongdoing by the Party claiming Force Majeure.

Generating Facility shall mean Interconnection Customer's device for the production and/or storage for later injection of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

Generating Facility Capacity shall mean the net capacity of the Generating Facility and the aggregate net capacity of the Generating Facility where it includes multiple energy production devices.

Good Utility Practice shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

Governmental Authority shall mean any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include Interconnection Customer, Transmission Provider, or any Affiliate thereof.

Hazardous Substances shall mean any chemicals, materials or substances defined as or included in the

definition of "hazardous substances," "hazardous wastes," "hazardous materials," "hazardous constituents," "restricted hazardous materials," "extremely hazardous substances," "toxic substances," "radioactive substances," "contaminants," "pollutants," "toxic pollutants" or words of similar meaning and regulatory effect under any applicable Environmental Law, or any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law.

Informational Interconnection Study shall mean an analysis based on assumptions specified by Interconnection Customer in the Informational Interconnection Study Agreement and conducted pursuant to Section 41 of the LGIP.

Informational Interconnection Study Agreement shall mean the form of agreement contained in Appendix 2A to the Standard Large Generator Interconnection Procedures for conducting the Informational Interconnection Study.

Informational Interconnection Study Request shall mean an Interconnection Customer's request in the form of Appendix 2 to the Standard Large Generator Interconnection Procedures.

Initial Synchronization Date shall mean the date upon which the Generating Facility is initially synchronized and upon which Trial Operation begins.

In-Service Date shall mean the date upon which the Interconnection Customer reasonably expects it will be ready to begin use of the Transmission Provider's Interconnection Facilities to obtain back feed power.

Interconnection Customer shall mean any entity, including the Transmission Provider, Transmission Owner or any of the Affiliates or subsidiaries of either, that proposes to interconnect its Generating Facility with the Transmission Provider's Transmission System. For purposes of the Transmission Provider's Cluster Study process conducted pursuant to Section 42, and except as modified by Section 51 of Transmission Provider's OATT, "Interconnection Customer" shall also mean any Small Generating Facility that is participating in a Cluster.

Interconnection Customer's Interconnection Facilities shall mean all facilities and equipment, as identified in Appendix A of the Standard Large Generator Interconnection Agreement, that are located between the Generating Facility and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Generating Facility to the Transmission Provider's Transmission System. Interconnection Customer's Interconnection Facilities are sole use facilities.

Interconnection Facilities shall mean the Transmission Provider's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Generating Facility to the Transmission Provider's Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades. Interconnection Facilities may be shared by more than one Generating Facility in a Cluster.

Interconnection Facilities Study shall mean a study conducted by the Transmission Provider or a third party consultant for the Interconnection Customer to determine a list of facilities (including Transmission Provider's Interconnection Facilities and Network Upgrades as identified in the Interconnection System Impact Study), the cost of those facilities, and the time required to interconnect the Generating Facility with the Transmission Provider's Transmission System. The scope of the study is defined in Section 43 of the Standard Large Generator Interconnection Procedures.

Interconnection Facilities Study Agreement shall mean the form of agreement contained in Appendix 4 of the Standard Large Generator Interconnection Procedures for conducting the Interconnection Facilities Study.

~~**Interconnection Feasibility Study** shall mean a preliminary evaluation of the system impact and cost of~~

~~interconnecting the Generating Facility to the Transmission Provider's Transmission System, the scope of which is described in Section 41 of the Standard Large Generator Interconnection Procedures.~~

~~Interconnection Feasibility Study Agreement shall mean the form of agreement contained in Appendix 2 of the Standard Large Generator Interconnection Procedures for conducting the Interconnection Feasibility Study.~~

Interconnection Request shall mean an Interconnection Customer's request, in the form of Appendix 1 to the Standard Large Generator Interconnection Procedures, in accordance with the Tariff, to interconnect a new Generating Facility, or to increase the capacity of, or make a Material Modification to the operating characteristics of, an existing Generating Facility that is interconnected with the Transmission Provider's Transmission System. For purposes of the Transmission Provider's Cluster Study process conducted pursuant to Section 42, and except as modified by Section 51 of Transmission Provider's OATT, "Interconnection Request" shall also mean any interconnection request from a Small Generating Facility that is participating in a Cluster.

Interconnection Service shall mean the service provided by the Transmission Provider associated with interconnecting the Interconnection Customer's Generating Facility to the Transmission Provider's Transmission System and enabling it to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Standard Large Generator Interconnection Agreement and, if applicable, the Transmission Provider's Tariff.

Interconnection Study shall mean any of the following studies: the Informational Interconnection ~~Feasibility~~ Study, the Cluster Study, Surplus Interconnection Service System Impact Study, and the Interconnection Facilities Study described in the Standard Large Generator Interconnection Procedures.

~~Interconnection System Impact Study shall mean an engineering study that evaluates the impact of the proposed interconnection on the safety and reliability of~~

~~Transmission Provider's Transmission System and, if applicable, an Affected System. The study shall identify and detail the system impacts that would result if the Generating Facility were interconnected without project modifications or system modifications, focusing on the Adverse System Impacts identified in the Interconnection Feasibility Study, or to study potential impacts, including but not limited to those identified in the Scoping Meeting as described in the Standard Large Generator Interconnection Procedures.~~

~~Interconnection System Impact Study Agreement shall mean the form of agreement contained in Appendix 3 of the Standard Large Generator Interconnection Procedures for conducting the Interconnection System Impact Study.~~

IRS shall mean the Internal Revenue Service.

Joint Operating Committee shall be a group made up of representatives from Interconnection Customers and the Transmission Provider to coordinate operating and technical considerations of Interconnection Service.

Large Generating Facility shall mean a Generating Facility having a Generating Facility Capacity of more than 20 MW.

Loss shall mean any and all losses relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's performance, or non-performance of its obligations under the Standard Large Generator Interconnection Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnifying Party.

Material Modification shall mean those modifications that have a material impact on the cost or timing of any Interconnection Request with a later queue priority date.

Metering Equipment shall mean all metering equipment installed or to be installed at the Generating Facility pursuant to the Standard Large Generator Interconnection

Agreement at the metering points, including but not limited to instrument transformers, MWh-meters, data acquisition equipment, transducers, remote terminal unit, communications equipment, phone lines, and fiber optics.

NERC shall mean the North American Electric Reliability Council or its successor organization.

Network Resource shall mean any designated generating resource owned, purchased, or leased by a Network Customer under the Network Integration Transmission Service Tariff. Network Resources do not include any resource, or any portion thereof, that is committed for sale to third parties or otherwise cannot be called upon to meet the Network Customer's Network Load on a non-interruptible basis.

Network Resource Interconnection Service shall mean an Interconnection Service that allows the Interconnection Customer to integrate its Large Generating Facility with the Transmission Provider's Transmission System (1) in a manner comparable to that in which the Transmission Provider integrates its generating facilities to serve native load customers; or (2) in an RTO or ISO with market based congestion management, in the same manner as Network Resources. Network Resource Interconnection Service in and of itself does not convey transmission service.

Network Upgrades shall mean the additions, modifications, and upgrades to the Transmission Provider's Transmission System required at or beyond the point at which the Interconnection Facilities connect to the Transmission Provider's Transmission System to accommodate the interconnection of the Large Generating Facility to the Transmission Provider's Transmission System.

Notice of Dispute shall mean a written notice of a dispute or claim that arises out of or in connection with the Standard Large Generator Interconnection Agreement or its performance.

~~Optional Interconnection Study shall mean a sensitivity analysis based on assumptions specified by the Interconnection Customer in the Optional Interconnection Study Agreement.~~

~~Optional Interconnection Study Agreement shall mean the form of agreement contained in Appendix 5 of the Standard Large Generator Interconnection Procedures for conducting the Optional Interconnection Study.~~

Party or Parties shall mean Transmission Provider, Transmission Owner, Interconnection Customer or any combination of the above.

Point of Change of Ownership shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Customer's Interconnection Facilities connect to the Transmission Provider's Interconnection Facilities.

Point of Interconnection shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Facilities connect to the Transmission Provider's Transmission System.

Provisional Interconnection Service shall mean Interconnection Service provided by Transmission Provider associated with interconnecting the Interconnection Customer's Generating Facility to Transmission Provider's Transmission System and enabling that Transmission System to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Provisional Large Generator Interconnection Agreement and, if applicable, the Tariff.

Provisional Large Generator Interconnection Agreement shall mean the interconnection agreement for Provisional Interconnection Service established between Transmission Provider and/or the Transmission Owner and the Interconnection Customer. This agreement shall take the form of the Large Generator Interconnection Agreement, modified for provisional purposes.

Queue Position shall mean the order of a valid Interconnection Request, relative to all other pending valid Interconnection Requests, that is established based upon the date and time of ~~receipt of the valid~~ Interconnection ~~Request by the~~ Customer satisfies all

of the requirements of Sections 38, 39, and 42 of Transmission Provider's LGIP to enter the Cluster Study Process.

Reasonable Efforts shall mean, with respect to an action required to be attempted or taken by a Party under the Standard Large Generator Interconnection Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

Readiness Milestone Options shall mean those options set forth in Section 38.4.1(v) of the LGIP.

Resource Plan shall mean any process authorized or required by Applicable Laws and Regulations for, inter alia, the selection of Generating Facilities.

Resource Solicitation Process shall mean any process authorized or required by Applicable Laws and Regulations for the acquisition of Network Resources.

Scoping Meeting shall mean the meeting between representatives of the Interconnection Customer and Transmission Provider conducted for the purpose of discussing the proposed interconnection request, alternative interconnection options, to exchange information including any transmission data and earlier study evaluations that would be reasonably expected to ~~impact~~affect such interconnection options, to analyze such information, and to determine the potential feasible Points of Interconnection.

~~Site Control shall mean documentation reasonably demonstrating~~Site Control shall mean the exclusive land right to develop, construct, operate, and maintain the Generating Facility over the term of expected operation of the Generating Facility. Site Control may be demonstrated by documentation establishing:
(1) ownership of, a leasehold interest in, or a right to develop a site ~~for the purpose of constructing~~of sufficient size to construct and operate the Generating Facility; (2) an option to purchase or acquire a leasehold ~~site for such purpose; or (3) an exclusivity or other business relationship between~~interest in a site of sufficient size to construct and

operate the Generating Facility; or (3) any other documentation that clearly demonstrates the right of the Interconnection Customer ~~and the entity having the right to sell, lease or grant Interconnection Customer the right to possess or to~~ exclusively occupy a site ~~for such purpose of~~ sufficient size to construct and operate the Generating Facility. Site Control for any co-located project is demonstrated by a contract or other agreement demonstrating shared land use for all co-located projects that meet the aforementioned provisions of this Site Control definition.

Small Generating Facility shall mean a Generating Facility that has a Generating Facility Capacity of no more than 20 MW.

Stand Alone Network Upgrades shall mean Network Upgrades that are not part of an Affected System that an Interconnection Customer may construct without affecting day-to-day operations of the Transmission System during their construction. Both the Transmission Provider and the Interconnection Customer must agree as to what constitutes Stand Alone Network Upgrades and identify them in Appendix A to the Standard Large Generator Interconnection Agreement. If the Transmission Provider and Interconnection Customer disagree about whether a particular Network Upgrade is a Stand Alone Network Upgrade, the Transmission Provider must provide the Interconnection Customer a written technical explanation outlining why the Transmission Provider does not consider the Network Upgrade to be a Stand Alone Network Upgrade within 15 days of its determination.

Standard Large Generator Interconnection Agreement (LGIA) shall mean the form of interconnection agreement applicable to an Interconnection Request pertaining to a Large Generating Facility that is included in the Transmission Provider's Tariff.

Standard Large Generator Interconnection Procedures (LGIP) shall mean the interconnection procedures applicable to an Interconnection Request pertaining to a Large Generating Facility that are included in the Transmission Provider's Tariff.

Surplus Interconnection Service shall mean any unneeded portion of Interconnection Service established in a Large Generator Interconnection Agreement, such that if Surplus Interconnection Service is utilized the total amount of Interconnection Service at the Point of Interconnection would remain the same.

Surplus Interconnection Service System Impact Study shall mean an engineering study that evaluates the impact of a proposed request for Surplus Interconnection Service on the safety and reliability of Transmission Provider's Transmission System and, if applicable, an Affected System. The study shall identify and detail the system impacts that would result if the Generating Facility were interconnected without project modifications or system modifications, focusing on the Adverse System Impacts, or to study potential impacts, including but not limited to those identified in the Scoping Meeting as described in the Standard Large Generator Interconnection Procedures.

Surplus Interconnection Service System Impact Study Agreement shall mean the form of agreement contained in Appendix XX of the Standard Large Generator Interconnection Procedures for conducting a system impact study for purposes of evaluating a request for Surplus Interconnection Service pursuant to Section 38.3.

System Protection Facilities shall mean the equipment, including necessary protection signal communications equipment, required to protect (1) the Transmission Provider's Transmission System from faults or other electrical disturbances occurring at the Generating Facility and (2) the Generating Facility from faults or other electrical system disturbances occurring on the Transmission Provider's Transmission System or on other delivery systems or other generating systems to which the Transmission Provider's Transmission System is directly connected.

Tariff shall mean the Transmission Provider's Tariff through which open access transmission service and Interconnection Service are offered, as filed with FERC, and as amended or supplemented from time to time, or any successor tariff.

Transmission Owner shall mean an entity that owns, leases or otherwise possesses an interest in the portion of the Transmission System at the Point of Interconnection and may be a Party to the Standard Large Generator Interconnection Agreement to the extent necessary.

Transmission Provider shall mean the public utility (or its designated agent) that owns, controls, or operates transmission or distribution facilities used for the transmission of electricity in interstate commerce and provides transmission service under the Tariff. The term Transmission Provider should be read to include the Transmission Owner when the Transmission Owner is separate from the Transmission Provider.

Transmission Provider's Interconnection Facilities shall mean all facilities and equipment owned, controlled or operated by the Transmission Provider from the Point of Change of Ownership to the Point of Interconnection as identified in Appendix A to the Standard Large Generator Interconnection Agreement, including any modifications, additions or upgrades to such facilities and equipment. Transmission Provider's Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades. [Transmission Provider's Interconnection Facilities may be shared by more than one Generating Facility in a given Cluster Study.](#)

Transmission System shall mean the facilities owned, controlled or operated by the Transmission Provider or Transmission Owner that are used to provide transmission service under the Tariff.

Trial Operation shall mean the period during which Interconnection Customer is engaged in on-site test operations and commissioning of the Generating Facility prior to Commercial Operation.

Variable Energy Resource shall mean a device for the production of electricity that is characterized by an energy source that: (1) is renewable; (2) cannot be stored by the facility owner or operator; and (3) has variability that is beyond the control of the facility owner or operator.

Withdrawal Penalty shall have the meaning set forth in Section 38.7.1 of the LGIP.

Article 2. Effective Date, Term, and Termination

- 2.1 Effective Date.** This LGIA shall become effective upon execution by the Parties subject to acceptance by FERC (if applicable), or if filed unexecuted, upon the date specified by FERC. Transmission Provider shall promptly file this LGIA with FERC upon execution in accordance with Article 3.1, if required.
- 2.2 Term of Agreement.** Subject to the provisions of Article 2.3, this LGIA shall remain in effect for a period of ten (10) years from the Effective Date or such other longer period as Interconnection Customer may request (Term to be specified in individual agreements) and shall be automatically renewed for each successive one-year period thereafter.

2.3 Termination Procedures.

2.3.1 **Written Notice.** This LGIA may be terminated by Interconnection Customer after giving Transmission Provider ninety (90) Calendar Days advance written notice, or by Transmission Provider notifying FERC after the Generating Facility permanently ceases Commercial Operation. This LGIA shall be terminated by Transmission Provider if the Generating Facility or a portion of the Generating Facility fails to achieve Commercial Operation by the Commercial Operation Date established in accordance with Section 39.4.5 of the LGIP, including any extension provided thereunder, or, having previously achieved Commercial Operation, has ceased Commercial Operation for three (3) consecutive years, beginning with the last date of Commercial Operation for the Generating Facility, after giving Interconnection Customer ninety (90) Calendar Days advance written notice. When only a portion of the Generating Facility fails to achieve Commercial Operation by the Commercial Operation Date established in accordance with Section 39.4.5 of the LGIP, including any extension provided thereunder, Transmission Provider shall terminate only that portion of the LGIA. Notwithstanding the foregoing, in the limited circumstance that the Interconnection Request is served by a Contingent Facility with an in-service date that is later than the Commercial Operation Date permitted under Section 39.4.5 of the LGIP, Transmission Provider shall terminate this LGIA only for failure to achieve Commercial Operation by ninety (90) Calendar Days after that later in-service date of the Contingent Facility. The Generating Facility will not be deemed to have ceased Commercial Operation for purposes of this Article 2.3.1 if Interconnection Customer can document that it has taken other significant steps to maintain or restore operational readiness of the Generating Facility for the purpose of returning the Generating Facility to Commercial Operation as soon as possible.

2.3.2 Default. Either Party may terminate this LGIA in accordance with Article 17.

2.3.3 Notwithstanding Articles 2.3.1 and 2.3.2, no termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination, including the filing with FERC of a notice of termination of this LGIA, which notice has been accepted for filing by FERC.

2.4 Termination Costs. If a Party elects to terminate this Agreement pursuant to Article 2.3 above, each Party shall pay all costs incurred (including any cancellation costs relating to orders or contracts for Interconnection Facilities and equipment) or charges assessed by the other Party, as of the date of the other Party's receipt of such notice of termination, that are the responsibility of the Terminating Party under this LGIA. In the event of termination by a Party, the Parties shall use commercially Reasonable Efforts to mitigate the costs, damages and charges arising as a consequence of termination. Upon termination of this LGIA, unless otherwise ordered or approved by FERC:

2.4.1 With respect to any portion of Transmission Provider's Interconnection Facilities that have not yet been constructed or installed, Transmission Provider shall to the extent possible and with Interconnection Customer's authorization cancel any pending orders of, or return, any materials or equipment for, or contracts for construction of, such facilities; provided that in the event Interconnection Customer elects not to authorize such cancellation, Interconnection Customer shall assume all payment obligations with respect to such materials, equipment, and contracts, and Transmission Provider shall deliver such material and equipment, and, if necessary,

assign such contracts, to Interconnection Customer as soon as practicable, at Interconnection Customer's expense. To the extent that Interconnection Customer has already paid Transmission Provider for any or all such costs of materials or equipment not taken by Interconnection Customer, Transmission Provider shall promptly refund such amounts to Interconnection Customer, less any costs, including penalties incurred by Transmission Provider to cancel any pending orders of or return such materials, equipment, or contracts.

If an Interconnection Customer terminates this LGIA, it shall be responsible for all costs incurred in association with that Interconnection Customer's interconnection, including any cancellation costs relating to orders or contracts for Interconnection Facilities and equipment, and other expenses including any Network Upgrades for which Transmission Provider has incurred expenses and has not been reimbursed by Interconnection Customer.

2.4.2 Transmission Provider may, at its option, retain any portion of such materials, equipment, or facilities that Interconnection Customer chooses not to accept delivery of, in which case Transmission Provider shall be responsible for all costs associated with procuring such materials, equipment, or facilities.

2.4.3 With respect to any portion of the Interconnection Facilities, and any other facilities already installed or constructed pursuant to the terms of this LGIA, Interconnection Customer shall be responsible for all costs associated with the removal, relocation or other disposition or retirement of such

materials, equipment, or facilities.

2.5 Disconnection. Upon termination of this LGIA, the Parties will take all appropriate steps to disconnect the Large Generating Facility from the Transmission System. All costs required to effectuate such disconnection shall be borne by the terminating Party, unless such termination resulted from the non-terminating Party's Default of this LGIA or such non-terminating Party otherwise is responsible for these costs under this LGIA.

2.6 Survival. This LGIA shall continue in effect after termination to the extent necessary to provide for final billings and payments and for costs incurred hereunder, including billings and payments pursuant to this LGIA; to permit the determination and enforcement of liability and indemnification obligations arising from acts or events that occurred while this LGIA was in effect; and to permit each Party to have access to the lands of the other Party pursuant to this LGIA or other applicable agreements, to disconnect, remove or salvage its own facilities and equipment.

Article 3. Regulatory Filings

3.1 Filing. Transmission Provider shall file this LGIA (and any amendment hereto) with the appropriate Governmental Authority, if required. Interconnection Customer may request that any information so provided be subject to the confidentiality provisions of Article 22. If Interconnection Customer has executed this LGIA, or any amendment thereto, Interconnection Customer shall reasonably cooperate with Transmission Provider with respect to such filing and to provide any information reasonably requested by Transmission Provider needed to comply with applicable regulatory requirements.

Article 4. Scope of Service

4.1 Interconnection Product Options. Interconnection Customer has selected the following (checked) type of Interconnection Service:

4.1.1 **Energy Resource Interconnection Service.**

4.1.1.1 The Product. Energy Resource Interconnection Service allows Interconnection Customer to connect the Large Generating Facility to the Transmission System and be eligible to deliver the Large Generating Facility's output using the existing firm or non-firm capacity of the Transmission System on an "as available" basis. To the extent Interconnection Customer wants to receive Energy Resource Interconnection Service, Transmission Provider shall construct facilities identified in Appendix A.

4.1.1.2 Transmission Delivery Service Implications. Under Energy Resource Interconnection Service, Interconnection Customer will be eligible to inject power from the Large Generating Facility into and deliver power across the interconnecting Transmission Provider's Transmission System on an "as available" basis up to the amount of MWs identified in the applicable stability and steady state studies to the extent the upgrades initially required to qualify for Energy Resource Interconnection Service have been constructed. Where eligible to do so (e.g., PJM, ISO-NE, NYISO), Interconnection Customer may place a bid to sell into the market up to the maximum identified Large Generating Facility output, subject to any conditions specified in the

interconnection service approval, and the Large Generating Facility will be dispatched to the extent Interconnection Customer's bid clears. In all other instances, no transmission delivery service from the Large Generating Facility is assured, but Interconnection Customer may obtain Point-to-Point Transmission Service, Network Integration Transmission Service, or be used for secondary network transmission service, pursuant to Transmission Provider's Tariff, up to the maximum output identified in the stability and steady state studies. In those instances, in order for Interconnection Customer to obtain the right to deliver or inject energy beyond the Large Generating Facility Point of Interconnection or to improve its ability to do so, transmission delivery service must be obtained pursuant to the provisions of Transmission Provider's Tariff. The Interconnection Customer's ability to inject its Large Generating Facility output beyond the Point of Interconnection, therefore, will depend on the existing capacity of Transmission Provider's Transmission System at such time as a transmission service request is made that would accommodate such delivery. The provision of firm Point-to-Point Transmission Service or Network Integration Transmission Service may require the construction of additional Network Upgrades.

4.1.2 Network Resource Interconnection Service.

4.1.2.1 The Product. Transmission Provider must conduct the necessary studies and construct the Network Upgrades needed to integrate the Large Generating Facility (1) in a manner comparable to that in which Transmission Provider integrates its generating facilities to serve native load customers; or (2) in an ISO or RTO with market based congestion management, in the same manner as all Network Resources. To the extent Interconnection Customer wants to receive Network Resource Interconnection Service, Transmission Provider shall construct the facilities identified in Appendix A to this LGIA.

4.1.2.2 Transmission Delivery Service Implications. Network Resource Interconnection Service allows Interconnection Customer's Large Generating Facility to be designated by any Network Customer under the Tariff on Transmission Provider's Transmission System as a Network Resource, up to the Large Generating Facility's full output, on the same basis as existing Network Resources interconnected to Transmission Provider's Transmission System, and to be studied as a Network Resource on the assumption that such a designation will occur. Although Network Resource Interconnection Service does not convey a reservation of

transmission service, any Network Customer under the Tariff can utilize its network service under the Tariff to obtain delivery of energy from the interconnected Interconnection Customer's Large Generating Facility in the same manner as it accesses Network Resources. A Large Generating Facility receiving Network Resource Interconnection Service may also be used to provide Ancillary Services after technical studies and/or periodic analyses are performed with respect to the Large Generating Facility's ability to provide any applicable Ancillary Services, provided that such studies and analyses have been or would be required in connection with the provision of such Ancillary Services by any existing Network Resource. However, if an Interconnection Customer's Large Generating Facility has not been designated as a Network Resource by any load, it cannot be required to provide Ancillary Services except to the extent such requirements extend to all generating facilities that are similarly situated. The provision of Network Integration Transmission Service or firm Point-to-Point Transmission Service may require additional studies and the construction of additional upgrades. Because such studies and upgrades would be associated with a request for delivery service under the Tariff, cost responsibility for the studies and upgrades would be in accordance with FERC's policy

for pricing transmission delivery services.

Network Resource Interconnection Service does not necessarily provide Interconnection Customer with the capability to physically deliver the output of its Large Generating Facility to any particular load on Transmission Provider's Transmission System without incurring congestion costs. In the event of transmission constraints on Transmission Provider's Transmission System, Interconnection Customer's Large Generating Facility shall be subject to the applicable congestion management procedures in Transmission Provider's Transmission System in the same manner as Network Resources.

There is no requirement either at the time of study or interconnection, or at any point in the future, that Interconnection Customer's Large Generating Facility be designated as a Network Resource by a Network Service Customer under the Tariff or that Interconnection Customer identify a specific buyer (or sink). To the extent a Network Customer does designate the Large Generating Facility as a Network Resource, it must do so pursuant to Transmission Provider's Tariff.

Once an Interconnection Customer satisfies the requirements for obtaining Network Resource

Interconnection Service, any future transmission service request for delivery from the Large Generating Facility within Transmission Provider's Transmission System of any amount of capacity and/or energy, up to the amount initially studied, will not require that any additional studies be performed or that any further upgrades associated with such Large Generating Facility be undertaken, regardless of whether or not such Large Generating Facility is ever designated by a Network Customer as a Network Resource and regardless of changes in ownership of the Large Generating Facility. However, the reduction or elimination of congestion or redispatch costs may require additional studies and the construction of additional upgrades.

To the extent Interconnection Customer enters into an arrangement for long term transmission service for deliveries from the Large Generating Facility outside Transmission Provider's Transmission System, such request may require additional studies and upgrades in order for Transmission Provider to grant such request.

4.2 Provision of Service. Transmission Provider shall provide Interconnection Service for the Large Generating Facility at the Point of Interconnection.

4.3 Performance Standards. Each Party shall perform all of its obligations under this LGIA in accordance with

Applicable Laws and Regulations, Applicable Reliability Standards, and Good Utility Practice, and to the extent a Party is required or prevented or limited in taking any action by such regulations and standards, such Party shall not be deemed to be in Breach of this LGIA for its compliance therewith. If such Party is a Transmission Provider or Transmission Owner, then that Party shall amend the LGIA and submit the amendment to FERC for approval.

4.4 No Transmission Delivery Service. The execution of this LGIA does not constitute a request for, nor the provision of, any transmission delivery service under Transmission Provider's Tariff, and does not convey any right to deliver electricity to any specific customer or Point of Delivery.

4.5 Interconnection Customer Provided Services. The services provided by Interconnection Customer under this LGIA are set forth in Article 9.6 and Article 13.5.1.

Interconnection Customer shall be paid for such services in accordance with Article 11.6.

Article 5. Interconnection Facilities Engineering, Procurement, and Construction

5.1 Options. Unless otherwise mutually agreed to between the Parties, Interconnection Customer shall select the In-Service Date, Initial Synchronization Date, and Commercial Operation Date; and either the Standard Option or Alternate Option set forth below, and such dates and selected option shall be set forth in Appendix B, Milestones. At the same time, Interconnection Customer shall indicate whether it elects to exercise the Option to Build set forth in Article 5.1.3 below. If the dates designated by Interconnection Customer are not acceptable to Transmission Provider, Transmission Provider shall so notify Interconnection Customer within thirty (30) Calendar Days. Upon receipt of the notification that Interconnection Customer's designated dates are not acceptable to Transmission Provider, the Interconnection Customer shall notify Transmission

Provider within thirty (30) Calendar Days whether it elects to exercise the Option to Build if it has not already elected to exercise the Option to Build.

5.1.1 Standard Option. Transmission Provider shall design, procure, and construct Transmission Provider's Interconnection Facilities and Network Upgrades, using Reasonable Efforts to complete Transmission Provider's Interconnection Facilities and Network Upgrades by the dates set forth in Appendix B, Milestones. Transmission Provider shall not be required to undertake any action which is inconsistent with its standard safety practices, its material and equipment specifications, its design criteria and construction procedures, its labor agreements, and Applicable Laws and Regulations. In the event Transmission Provider reasonably expects that it will not be able to complete Transmission Provider's Interconnection Facilities and Network Upgrades by the specified dates, Transmission Provider shall promptly provide written notice to Interconnection Customer and shall undertake Reasonable Efforts to meet the earliest dates thereafter.

5.1.2 Alternate Option. If the dates designated by Interconnection Customer are acceptable to Transmission Provider, Transmission Provider shall so notify Interconnection Customer within thirty (30) Calendar Days, and shall assume responsibility for the design, procurement and construction of Transmission Provider's Interconnection Facilities by the designated dates.

If Transmission Provider subsequently fails to complete Transmission Provider's Interconnection Facilities by the In-Service Date, to the extent necessary to provide back feed power; or fails to

complete Network Upgrades by the Initial Synchronization Date to the extent necessary to allow for Trial Operation at full power output, unless other arrangements are made by the Parties for such Trial Operation; or fails to complete the Network Upgrades by the Commercial Operation Date, as such dates are reflected in Appendix B, Milestones; Transmission Provider shall pay Interconnection Customer liquidated damages in accordance with Article 5.3, Liquidated Damages, provided, however, the dates designated by Interconnection Customer shall be extended day for day for each day that the applicable RTO or ISO refuses to grant clearances to install equipment.

5.1.3 Option to Build. Interconnection Customer shall have the option to assume responsibility for the design, procurement and construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades on the dates specified in Article 5.1.2. Transmission Provider and Interconnection Customer must agree as to what constitutes Stand Alone Network Upgrades and identify such Stand Alone Network Upgrades in Appendix A. Except for Stand Alone Network Upgrades, Interconnection Customer shall have no right to construct Network Upgrades under this option.

5.1.4 Negotiated Option. If the dates designated by interconnection Customer are not acceptable to Transmission Provider, the Parties shall in good faith attempt to negotiate terms and conditions (including revision of the specified dates and liquidated damages, the provision of incentives, or the procurement and construction of all facilities other than Transmission Provider's Interconnection

Facilities and Stand Alone Network Upgrades if the Interconnection Customer elects to exercise the Option to Build under Article 5.1.3. If the Parties are unable to reach agreement on such terms and conditions, then, pursuant to Article 5.1.1 (Standard Option), Transmission Provider shall assume responsibility for the design, procurement and construction of all facilities other than Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades if the Interconnection Customer elects to exercise the Option to Build.

5.2 General Conditions Applicable to Option to Build. If Interconnection Customer assumes responsibility for the design, procurement and construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades,

- (1) Interconnection Customer shall engineer, procure equipment, and construct Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades (or portions thereof) using Good Utility Practice and using standards and specifications provided in advance by Transmission Provider;
- (2) Interconnection Customer's engineering, procurement and construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades shall comply with all requirements of law to which Transmission Provider would be subject in the engineering, procurement or construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades;
- (3) Transmission Provider shall review and approve the engineering design, equipment acceptance tests, and the construction of

Transmission Provider's Interconnection
Facilities and Stand Alone Network
Upgrades;

- (4) prior to commencement of construction, Interconnection Customer shall provide to Transmission Provider a schedule for construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades, and shall promptly respond to requests for information from Transmission Provider;
- (5) at any time during construction, Transmission Provider shall have the right to gain unrestricted access to Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades and to conduct inspections of the same;
- (6) at any time during construction, should any phase of the engineering, equipment procurement, or construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades not meet the standards and specifications provided by Transmission Provider, Interconnection Customer shall be obligated to remedy deficiencies in that portion of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades;
- (7) Interconnection Customer shall indemnify Transmission Provider for claims arising from Interconnection Customer's construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades under the terms and procedures applicable to Article 18.1 Indemnity;
- (8) Interconnection Customer shall transfer control of Transmission Provider's

Interconnection Facilities and Stand Alone Network Upgrades to Transmission Provider;

- (9) Unless Parties otherwise agree, Interconnection Customer shall transfer ownership of Transmission Provider's Interconnection Facilities and Stand-Alone Network Upgrades to Transmission Provider;
- (10) Transmission Provider shall approve and accept for operation and maintenance Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades to the extent engineered, procured, and constructed in accordance with this Article 5.2; and
- (11) Interconnection Customer shall deliver to Transmission Provider "as-built" drawings, information, and any other documents that are reasonably required by Transmission Provider to assure that the Interconnection Facilities and Stand-Alone Network Upgrades are built to the standards and specifications required by Transmission Provider.
- (12) If Interconnection Customer exercises the Option to Build pursuant to Article 5.1.3, Interconnection Customer shall pay Transmission Provider the agreed upon amount of [\$PLACEHOLDER] for Transmission Provider to execute the responsibilities enumerated to Transmission Provider under Article 5.2. Transmission Provider shall invoice Interconnection Customer for this total amount to be divided on a monthly basis pursuant to Article 12.

5.3 Liquidated Damages. The actual damages to Interconnection Customer, in the event Transmission Provider's Interconnection Facilities or Network Upgrades are not completed by the dates designated by Interconnection Customer and accepted by Transmission Provider pursuant to subparagraphs 5.1.2 or 5.1.4,

above, may include Interconnection Customer's fixed operation and maintenance costs and lost opportunity costs. Such actual damages are uncertain and impossible to determine at this time. Because of such uncertainty, any liquidated damages paid by Transmission Provider to Interconnection Customer in the event that Transmission Provider does not complete any portion of Transmission Provider's Interconnection Facilities or Network Upgrades by the applicable dates, shall be an amount equal to $\frac{1}{2}$ of 1 percent per day of the actual cost of Transmission Provider's Interconnection Facilities and Network Upgrades, in the aggregate, for which Transmission Provider has assumed responsibility to design, procure and construct.

However, in no event shall the total liquidated damages exceed 20 percent of the actual cost of Transmission Provider's Interconnection Facilities and Network Upgrades for which Transmission Provider has assumed responsibility to design, procure, and construct. The foregoing payments will be made by Transmission Provider to Interconnection Customer as just compensation for the damages caused to Interconnection Customer, which actual damages are uncertain and impossible to determine at this time, and as reasonable liquidated damages, but not as a penalty or a method to secure performance of this LGIA. Liquidated damages, when the Parties agree to them, are the exclusive remedy for the Transmission Provider's failure to meet its schedule.

No liquidated damages shall be paid to Interconnection Customer if: (1) Interconnection Customer is not ready to commence use of Transmission Provider's Interconnection Facilities or Network Upgrades to take the delivery of power for the Large Generating Facility's Trial Operation or to export power from the Large Generating Facility on the specified dates, unless Interconnection Customer would have been able to commence use of Transmission Provider's Interconnection Facilities or Network Upgrades to take the delivery of power for Large Generating Facility's Trial Operation or to export power from the Large Generating Facility, but for

Transmission Provider's delay; (2) Transmission Provider's failure to meet the specified dates is the result of the action or inaction of Interconnection Customer or any other Interconnection Customer who has entered into an LGIA with Transmission Provider or any cause beyond Transmission Provider's reasonable control or reasonable ability to cure; (3) the interconnection Customer has assumed responsibility for the design, procurement and construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades; or (4) the Parties have otherwise agreed.

5.4 Power System Stabilizers. The Interconnection Customer shall procure, install, maintain and operate Power System Stabilizers in accordance with the guidelines and procedures established by the Applicable Reliability Council. Transmission Provider reserves the right to reasonably establish minimum acceptable settings for any installed Power System Stabilizers, subject to the design and operating limitations of the Large Generating Facility. If the Large Generating Facility's Power System Stabilizers are removed from service or not capable of automatic operation, Interconnection Customer shall immediately notify Transmission Provider's system operator, or its designated representative. The requirements of this paragraph shall not apply to wind generators.

5.5 Equipment Procurement. If responsibility for construction of Transmission Provider's Interconnection Facilities or Network Upgrades is to be borne by Transmission Provider, then Transmission Provider shall commence design of Transmission Provider's Interconnection Facilities or Network Upgrades and procure necessary equipment as soon as practicable after all of the following conditions are satisfied, unless the Parties otherwise agree in writing:

5.5.1 Transmission Provider has completed the Facilities Study pursuant to the Facilities Study Agreement;

5.5.2 Transmission Provider has received written authorization to proceed with design and procurement from Interconnection Customer by the date specified in Appendix B, Milestones; and

5.5.3 Interconnection Customer has provided security to Transmission Provider in accordance with Article 11.5 by the dates specified in Appendix B, Milestones.

5.6 Construction Commencement. Transmission Provider shall commence construction of Transmission Provider's Interconnection Facilities and Network Upgrades for which it is responsible as soon as practicable after the following additional conditions are satisfied:

5.6.1 Approval of the appropriate Governmental Authority has been obtained for any facilities requiring regulatory approval;

5.6.2 Necessary real property rights and rights-of-way have been obtained, to the extent required for the construction of a discrete aspect of Transmission Provider's Interconnection Facilities and Network Upgrades;

5.6.3 Transmission Provider has received written authorization to proceed with construction from Interconnection Customer by the date specified in Appendix B, Milestones; and

5.6.4 Interconnection Customer has provided security to Transmission Provider in accordance with Article 11.5 by the dates specified in Appendix B, Milestones.

5.7 Work Progress. The Parties will keep each other advised periodically as to the progress of their respective design, procurement and construction efforts. Either Party may, at any time, request a progress report from the other Party. If, at any time, Interconnection Customer determines that the

completion of Transmission Provider's Interconnection Facilities will not be required until after the specified In-Service Date, Interconnection Customer will provide written notice to Transmission Provider of such later date upon which the completion of Transmission Provider's Interconnection Facilities will be required.

5.8 Information Exchange. As soon as reasonably practicable after the Effective Date, the Parties shall exchange information regarding the design and compatibility of the Parties' Interconnection Facilities and compatibility of the Interconnection Facilities with Transmission Provider's Transmission System, and shall work diligently and in good faith to make any necessary design changes.

5.9 Other Interconnection Options.

5.9.1 Limited Operation. If any of Transmission Provider's Interconnection Facilities or Network Upgrades are not reasonably expected to be completed prior to the Commercial Operation Date of the Large Generating Facility, Transmission Provider shall, upon the request and at the expense of Interconnection Customer, perform operating studies on a timely basis to determine the extent to which the Large Generating Facility and Interconnection Customer's Interconnection Facilities may operate prior to the completion of Transmission Provider's Interconnection Facilities or Network Upgrades consistent with Applicable Laws and Regulations, Applicable Reliability Standards, Good Utility Practice, and this LGIA. Transmission Provider shall permit Interconnection Customer to operate the Large Generating Facility and Interconnection Customer's Interconnection Facilities in accordance with the results of such studies.

5.9.2 Provisional Interconnection Service. Upon

the request of Interconnection Customer, and prior to completion of requisite Interconnection Facilities, Network Upgrades, Distribution Upgrades, or System Protection Facilities Transmission Provider may execute a Provisional Large Generator Interconnection Agreement or Interconnection Customer may request the filing of an unexecuted Provisional Large Generator Interconnection Agreement with the Interconnection Customer for limited Interconnection Service at the discretion of Transmission Provider based upon an evaluation that will consider the results of available studies. Transmission Provider shall determine, through available studies or additional studies as necessary, whether stability, short circuit, thermal, and/or voltage issues would arise if Interconnection Customer interconnects without modifications to the Generating Facility or Transmission System. Transmission Provider shall determine whether any Interconnection Facilities, Network Upgrades, Distribution Upgrades, or System Protection Facilities that are necessary to meet the requirements of NERC, or any applicable Regional Entity for the interconnection of a new, modified and/or expanded Generating Facility are in place prior to the commencement of Interconnection Service from the Generating Facility. Where available studies indicate that such, Interconnection Facilities, Network Upgrades, Distribution Upgrades, and/or System Protection Facilities that are required for the interconnection of a new, modified and/or expanded Generating Facility are not currently in place, Transmission Provider will perform a study, at the Interconnection Customer's expense, to confirm the facilities that are required for Provisional Interconnection Service. The maximum

permissible output of the Generating Facility in the Provisional Large Generator Interconnection Agreement shall be studied and updated as system conditions warrant (in the determination of the Transmission Provider in its discretion) but no less frequently than annually. Interconnection Customer assumes all risk and liabilities with respect to changes between the Provisional Large Generator Interconnection Agreement and the Large Generator Interconnection Agreement, including changes in output limits and Interconnection Facilities, Network Upgrades, Distribution Upgrades, and/or System Protection Facilities cost responsibilities.

5.10 Interconnection Customer's Interconnection Facilities ('ICIF'). Interconnection Customer shall, at its expense, design, procure, construct, own and install the ICIF, as set forth in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades.

5.10.1 Interconnection Customer's Interconnection Facility Specifications. Interconnection Customer shall submit initial specifications for the ICIF, including System Protection Facilities, to Transmission Provider at least one hundred eighty (180) Calendar Days prior to the Initial Synchronization Date; and final specifications for review and comment at least ninety (90) Calendar Days prior to the Initial Synchronization Date. Transmission Provider shall review such specifications to ensure that the ICIF are compatible with the technical specifications, operational control, and safety requirements of Transmission Provider and comment on such specifications within thirty (30) Calendar Days of Interconnection Customer's submission. All specifications provided

hereunder shall be deemed confidential.

5.10.2

Transmission Provider's Review.

Transmission Provider's review of Interconnection Customer's final specifications shall not be construed as confirming, endorsing, or providing a warranty as to the design, fitness, safety, durability or reliability of the Large Generating Facility, or the ICIF. Interconnection Customer shall make such changes to the ICIF as may reasonably be required by Transmission Provider, in accordance with Good Utility Practice, to ensure that the ICIF are compatible with the technical specifications, operational control, and safety requirements of Transmission Provider.

5.10.3

ICIF Construction. The ICIF shall be designed and constructed in accordance with Good Utility Practice. Within one hundred twenty (120) Calendar Days after the Commercial Operation Date, unless the Parties agree on another mutually acceptable deadline, Interconnection Customer shall deliver to Transmission Provider "as-built" drawings, information and documents for the ICIF, such as: a one-line diagram, a site plan showing the Large Generating Facility and the ICIF, plan and elevation drawings showing the layout of the ICIF, a relay functional diagram, relaying AC and DC schematic wiring diagrams and relay settings for all facilities associated with Interconnection Customer's step-up transformers, the facilities connecting the Large Generating Facility to the step-up transformers and the ICIF, and the impedances (determined by factory tests) for the associated step-up transformers and the Large Generating Facility. The Interconnection Customer shall provide Transmission Provider specifications for the excitation system,

automatic voltage regulator, Large Generating Facility control and protection settings, transformer tap settings, and communications, if applicable.

5.11 Transmission Provider's Interconnection Facilities Construction. Transmission Provider's Interconnection Facilities shall be designed and constructed in accordance with Good Utility Practice. Upon request, within one hundred twenty (120) Calendar Days after the Commercial Operation Date, unless the Parties agree on another mutually acceptable deadline, Transmission Provider shall deliver to Interconnection Customer the following "as-built" drawings, information and documents for Transmission Provider's Interconnection Facilities [include appropriate drawings and relay diagrams].

Transmission Provider will obtain control of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades upon completion of such facilities.

5.12 Access Rights. Upon reasonable notice and supervision by a Party, and subject to any required or necessary regulatory approvals, a Party ("Granting Party") shall furnish at no cost to the other Party ("Access Party") any rights of use, licenses, rights of way and easements with respect to lands owned or controlled by the Granting Party, its agents (if allowed under the applicable agency agreement), or any Affiliate, that are necessary to enable the Access Party to obtain ingress and egress to construct, operate, maintain, repair, test (or witness testing), inspect, replace or remove facilities and equipment to: (i) interconnect the Large Generating Facility with the Transmission System; (ii) operate and maintain the Large Generating Facility, the Interconnection Facilities and the Transmission System; and (iii) disconnect or remove the Access Party's facilities and equipment upon termination of this LGIA. In exercising such licenses, rights of way and easements, the Access Party shall not unreasonably disrupt or interfere with normal operation of the Granting Party's

business and shall adhere to the safety rules and procedures established in advance, as may be changed from time to time, by the Granting Party and provided to the Access Party.

5.13 Lands of Other Property Owners. If any part of Transmission Provider or Transmission Owner's Interconnection Facilities and/or Network Upgrades is to be installed on property owned by persons other than Interconnection Customer or Transmission Provider or Transmission Owner, Transmission Provider or Transmission Owner shall at Interconnection Customer's expense use efforts, similar in nature and extent to those that it typically undertakes on its own behalf or on behalf of its Affiliates, including use of its eminent domain authority, and to the extent consistent with state law, to procure from such persons any rights of use, licenses, rights of way and easements that are necessary to construct, operate, maintain, test, inspect, replace or remove Transmission Provider or Transmission Owner's Interconnection Facilities and/or Network Upgrades upon such property.

5.14 Permits. Transmission Provider or Transmission Owner and Interconnection Customer shall cooperate with each other in good faith in obtaining all permits, licenses and authorizations that are necessary to accomplish the interconnection in compliance with Applicable Laws and Regulations. With respect to this paragraph, Transmission Provider or Transmission Owner shall provide permitting assistance to Interconnection Customer comparable to that provided to Transmission Provider's own, or an Affiliate's generation.

5.15 Early Construction of Base Case Facilities. Interconnection Customer may request Transmission Provider to construct, and Transmission Provider shall construct, using Reasonable Efforts to accommodate Interconnection Customer's In-Service Date, all or any portion of any Network Upgrades required for Interconnection Customer to be interconnected to the Transmission System which are included in the Base Case of the Facilities Study for

Interconnection Customer, and which also are required to be constructed for another Interconnection Customer, but where such construction is not scheduled to be completed in time to achieve Interconnection Customer's In-Service Date.

5.16 Suspension. Interconnection Customer reserves the right, upon written notice to Transmission Provider, to suspend at any time all work by Transmission Provider associated with the construction and installation of Transmission Provider's Interconnection Facilities and/or Network Upgrades required under this LGIA with the condition that Transmission System shall be left in a safe and reliable condition in accordance with Good Utility Practice and Transmission Provider's safety and reliability criteria. In such event, Interconnection Customer shall be responsible for all reasonable and necessary costs which Transmission Provider (i) has incurred pursuant to this LGIA prior to the suspension and (ii) incurs in suspending such work, including any costs incurred to perform such work as may be necessary to ensure the safety of persons and property and the integrity of the Transmission System during such suspension and, if applicable, any costs incurred in connection with the cancellation or suspension of material, equipment and labor contracts which Transmission Provider cannot reasonably avoid; provided, however, that prior to canceling or suspending any such material, equipment or labor contract, Transmission Provider shall obtain Interconnection Customer's authorization to do so. Interconnection Customer shall also be obligated to pay any applicable penalties associated with the suspension, pursuant to Section 38.7 of Transmission Provider's OATT. Transmission Provider shall invoice Interconnection Customer for such costs pursuant to Article 12 and shall use due diligence to minimize its costs. ~~in~~

Except as provided in Article 5.16.2 below, in the event Interconnection Customer suspends work by Transmission Provider required under this LGIA pursuant to this Article 5.16, and has not requested Transmission Provider to recommence the work required

under this LGIA on or before the expiration of three (3) years following commencement of such suspension, this LGIA shall be deemed terminated. The three-year period shall begin on the date the suspension is requested, or the date of the written notice to Transmission Provider, if no effective date is specified.

5.16.1 Effect of Missed Interconnection Customer LGIA

Milestones. If Interconnection Customer fails to provide notice of suspension pursuant to Article 5.16, and Interconnection Customer fails to fulfill or complete any Interconnection Customer LGIA Milestone provided in Appendix B ("LGIA Milestone"), this constitutes a Breach under this LGIA. Depending upon the consequences of the Breach and effectiveness of the cure pursuant to Article 17, Transmission Provider's LGIA Milestones may be revised, following consultation with Interconnection Customer, consistent with Reasonable Efforts, and in consideration of all relevant circumstances. Parties shall employ Reasonable Efforts to maintain their remaining respective LGIA Milestones.

5.16.2 Effect of Suspension; Parties Obligations. In the event that Interconnection Customer suspends work pursuant to this Article 5.16, the applicable construction duration, timelines and schedules set forth in Appendix B shall be suspended during the period of suspension. Should Interconnection Customer thereafter request that work be recommenced, Appendix A and Appendix B may be revised to account for construction sequencing and modified milestones. If the Commercial Operation Date is extended beyond three (3) cumulative years described in Section 39.4.5 of the LGIP and Article 2.3.1 of this LGIA, such an extension may be considered a Material Modification and result in the termination of the LGIA under Article 2.3.1. Interconnection Customer is required to maintain Site Control while this LGIA is in effect, including during suspension.

5.17 Taxes.

5.17.1 Interconnection Customer Payments Not

Taxable. The Parties intend that all payments or property transfers made by Interconnection Customer to Transmission Provider for the installation of Transmission Provider's Interconnection Facilities and the Network Upgrades shall be non-taxable, either as contributions to capital, or as an advance, in accordance with the Internal Revenue Code and any applicable state income tax laws and shall not be taxable as contributions in aid of construction or otherwise under the Internal Revenue Code and any applicable state income tax laws.

5.17.2 Representations and Covenants. In accordance with IRS Notice 2001-82 and IRS Notice 88-129, Interconnection Customer represents and covenants that (i) ownership of the electricity generated at the Large Generating Facility will pass to another party prior to the transmission of the electricity on the Transmission System, (ii) for income tax purposes, the amount of any payments and the cost of any property transferred to Transmission Provider for Transmission Provider's Interconnection Facilities will be capitalized by Interconnection Customer as an intangible asset and recovered using the straight-line method over a useful life of twenty (20) years, and (iii) any portion of Transmission Provider's Interconnection Facilities that is a "dual-use intertie," within the meaning of IRS Notice 88-129, is reasonably expected to carry only a de minimis amount of electricity in the direction of the Large Generating Facility. For this purpose, "de minimis amount" means no more than 5 percent of the total power flows in both directions, calculated in accordance with the "5 percent test" set forth in IRS Notice 88-129. This is not intended to be an exclusive list of the relevant

conditions that must be met to conform to IRS requirements for non-taxable treatment.

At Transmission Provider's request, Interconnection Customer shall provide Transmission Provider with a report from an independent engineer confirming its representation in clause (iii), above. Transmission Provider represents and covenants that the cost of Transmission Provider's Interconnection Facilities paid for by Interconnection Customer will have no net effect on the base upon which rates are determined.

5.17.3 Indemnification for the Cost Consequences of Current Tax Liability Imposed Upon the Transmission Provider. Notwithstanding Article 5.17.1, Interconnection Customer shall protect, indemnify and hold harmless Transmission Provider from the cost consequences of any current tax liability imposed against Transmission Provider as the result of payments or property transfers made by Interconnection Customer to Transmission Provider under this LGIA for Interconnection Facilities, as well as any interest and penalties, other than interest and penalties attributable to any delay caused by Transmission Provider.

Transmission Provider shall not include a gross-up for the cost consequences of any current tax liability in the amounts it charges Interconnection Customer under this LGIA unless (i) Transmission Provider has determined, in good faith, that the payments or property transfers made by Interconnection Customer to Transmission Provider should be reported as income subject to taxation or (ii) any Governmental Authority directs Transmission Provider to report payments or property as income subject to

taxation; provided, however, that Transmission Provider may require Interconnection Customer to provide security for Interconnection Facilities, in a form reasonably acceptable to Transmission Provider (such as a parental guarantee or a letter of credit), in an amount equal to the cost consequences of any current tax liability under this Article 5.17. Interconnection Customer shall reimburse Transmission Provider for such costs on a fully grossed-up basis, in accordance with Article 5.17.4, within thirty (30) Calendar Days of receiving written notification from Transmission Provider of the amount due, including detail about how the amount was calculated.

The indemnification obligation shall terminate at the earlier of (1) the expiration of the ten year testing period and the applicable statute of limitation, as it may be extended by Transmission Provider upon request of the IRS, to keep these years open for audit or adjustment, or (2) the occurrence of a subsequent taxable event and the payment of any related indemnification obligations as contemplated by this Article 5.17.

5.17.4 Tax Gross-Up Amount. Interconnection Customer's liability for the cost consequences of any current tax liability under this Article 5.17 shall be calculated on a fully grossed-up basis. Except as may otherwise be agreed to by the parties, this means that Interconnection Customer will pay Transmission Provider, in addition to the amount paid for the Interconnection Facilities and Network Upgrades, an amount equal to (1) the current taxes imposed on Transmission Provider ("Current Taxes") on the excess of (a) the gross income

realized by Transmission Provider as a result of payments or property transfers made by Interconnection Customer to Transmission Provider under this LGIA (without regard to any payments under this Article 5.17) (the "Gross Income Amount") over (b) the present value of future tax deductions for depreciation that will be available as a result of such payments or property transfers (the "Present Value Depreciation Amount"), plus (2) an additional amount sufficient to permit Transmission Provider to receive and retain, after the payment of all Current Taxes, an amount equal to the net amount described in clause (1).

For this purpose, (i) Current Taxes shall be computed based on Transmission Provider's composite federal and state tax rates at the time the payments or property transfers are received and Transmission Provider will be treated as being subject to tax at the highest marginal rates in effect at that time (the "Current Tax Rate"), and (ii) the Present Value Depreciation Amount shall be computed by discounting Transmission Provider's anticipated tax depreciation deductions as a result of such payments or property transfers by Transmission Provider's current weighted average cost of capital. Thus, the formula for calculating Interconnection Customer's liability to Transmission Owner pursuant to this Article 5.17.4 can be expressed as follows: $(\text{Current Tax Rate} \times (\text{Gross Income Amount} - \text{Present Value of Tax Depreciation})) / (1 - \text{Current Tax Rate})$. Interconnection Customer's estimated tax liability in the event taxes are imposed shall be stated in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades.

5.17.5 Private Letter Ruling or Change or Clarification of Law. At Interconnection Customer's request and expense, Transmission Provider shall file with the IRS a request for a private letter ruling as to whether any property transferred or sums paid, or to be paid, by Interconnection Customer to Transmission Provider under this LGIA are subject to federal income taxation. Interconnection Customer will prepare the initial draft of the request for a private letter ruling, and will certify under penalties of perjury that all facts represented in such request are true and accurate to the best of Interconnection Customer's knowledge. Transmission Provider and Interconnection Customer shall cooperate in good faith with respect to the submission of such request.

Transmission Provider shall keep Interconnection Customer fully informed of the status of such request for a private letter ruling and shall execute either a privacy act waiver or a limited power of attorney, in a form acceptable to the IRS, that authorizes Interconnection Customer to participate in all discussions with the IRS regarding such request for a private letter ruling. Transmission Provider shall allow Interconnection Customer to attend all meetings with IRS officials about the request and shall permit Interconnection Customer to prepare the initial drafts of any follow-up letters in connection with the request.

5.17.6 Subsequent Taxable Events. If, within 10 years from the date on which the relevant Transmission Provider's Interconnection Facilities are placed in service, (i) Interconnection Customer Breaches the covenants contained in Article 5.17.2, (ii) a "disqualification event" occurs

within the meaning of IRS Notice 88-129, or (iii) this LGIA terminates and Transmission Provider retains ownership of the Interconnection Facilities and Network Upgrades, Interconnection Customer shall pay a tax gross-up for the cost consequences of any current tax liability imposed on Transmission Provider, calculated using the methodology described in Article 5.17.4 and in accordance with IRS Notice 90-60.

5.17.7 Contests. In the event any Governmental Authority determines that Transmission Provider's receipt of payments or property constitutes income that is subject to taxation, Transmission Provider shall notify Interconnection Customer, in writing, within thirty (30) Calendar Days of receiving notification of such determination by a Governmental Authority. Upon the timely written request by Interconnection Customer and at Interconnection Customer's sole expense, Transmission Provider may appeal, protest, seek abatement of, or otherwise oppose such determination. Upon Interconnection Customer's written request and sole expense, Transmission Provider may file a claim for refund with respect to any taxes paid under this Article 5.17, whether or not it has received such a determination. Transmission Provider reserves the right to make all decisions with regard to the prosecution of such appeal, protest, abatement or other contest, including the selection of counsel and compromise or settlement of the claim, but Transmission Provider shall keep Interconnection Customer informed, shall consider in good faith suggestions from Interconnection Customer about the conduct of the contest, and shall reasonably permit Interconnection Customer or an Interconnection Customer representative to

attend contest proceedings.

Interconnection Customer shall pay to Transmission Provider on a periodic basis, as invoiced by Transmission Provider, Transmission Provider's documented reasonable costs of prosecuting such appeal, protest, abatement or other contest. At any time during the contest, Transmission Provider may agree to a settlement either with Interconnection Customer's consent or after obtaining written advice from nationally-recognized tax counsel, selected by Transmission Provider, but reasonably acceptable to Interconnection Customer, that the proposed settlement represents a reasonable settlement given the hazards of litigation. Interconnection Customer's obligation shall be based on the amount of the settlement agreed to by Interconnection Customer, or if a higher amount, so much of the settlement that is supported by the written advice from nationally-recognized tax counsel selected under the terms of the preceding sentence. The settlement amount shall be calculated on a fully grossed-up basis to cover any related cost consequences of the current tax liability. Any settlement without Interconnection Customer's consent or such written advice will relieve Interconnection Customer from any obligation to indemnify Transmission Provider for the tax at issue in the contest.

5.17.8 Refund. In the event that (a) a private letter ruling is issued to Transmission Provider which holds that any amount paid or the value of any property transferred by Interconnection Customer to Transmission Provider under the terms of this LGIA is not subject to federal income taxation, (b) any legislative change or

administrative announcement, notice, ruling or other determination makes it reasonably clear to Transmission Provider in good faith that any amount paid or the value of any property transferred by Interconnection Customer to Transmission Provider under the terms of this LGIA is not taxable to Transmission Provider, (c) any abatement, appeal, protest, or other contest results in a determination that any payments or transfers made by Interconnection Customer to Transmission Provider are not subject to federal income tax, or (d) if Transmission Provider receives a refund from any taxing authority for any overpayment of tax attributable to any payment or property transfer made by Interconnection Customer to Transmission Provider pursuant to this LGIA, Transmission Provider shall promptly refund to Interconnection Customer the following:

- (i) any payment made by Interconnection Customer under this Article 5.17 for taxes that is attributable to the amount determined to be non-taxable, together with interest thereon,
- (ii) interest on any amounts paid by Interconnection Customer to Transmission Provider for such taxes which Transmission Provider did not submit to the taxing authority, calculated in accordance with the methodology set forth in FERC's regulations at 18 CFR §35.19a(a)(2)(iii) from the date payment was made by Interconnection Customer to the date Transmission Provider refunds such payment to Interconnection Customer, and

(iii) with respect to any such taxes paid by Transmission Provider, any refund or credit Transmission Provider receives or to which it may be entitled from any Governmental Authority, interest (or that portion thereof attributable to the payment described in clause (i), above) owed to Transmission Provider for such overpayment of taxes (including any reduction in interest otherwise payable by Transmission Provider to any Governmental Authority resulting from an offset or credit); provided, however, that Transmission Provider will remit such amount promptly to Interconnection Customer only after and to the extent that Transmission Provider has received a tax refund, credit or offset from any Governmental Authority for any applicable overpayment of income tax related to Transmission Provider's Interconnection Facilities.

The intent of this provision is to leave the Parties, to the extent practicable, in the event that no taxes are due with respect to any payment for Interconnection Facilities and Network Upgrades hereunder, in the same position they would have been in had no such tax payments been made.

5.17.9 Taxes Other Than Income Taxes. Upon the timely request by Interconnection Customer, and at Interconnection Customer's sole expense, Transmission Provider may appeal, protest, seek abatement of, or otherwise contest any tax (other than federal or state income tax) asserted or assessed against Transmission

Provider for which Interconnection Customer may be required to reimburse Transmission Provider under the terms of this LGIA. Interconnection Customer shall pay to Transmission Provider on a periodic basis, as invoiced by Transmission Provider, Transmission Provider's documented reasonable costs of prosecuting such appeal, protest, abatement, or other contest. Interconnection Customer and Transmission Provider shall cooperate in good faith with respect to any such contest. Unless the payment of such taxes is a prerequisite to an appeal or abatement or cannot be deferred, no amount shall be payable by Interconnection Customer to Transmission Provider for such taxes until they are assessed by a final, non-appealable order by any court or agency of competent jurisdiction. In the event that a tax payment is withheld and ultimately due and payable after appeal, Interconnection Customer will be responsible for all taxes, interest and penalties, other than penalties attributable to any delay caused by Transmission Provider.

5.17.10 Transmission Owners Who Are Not Transmission Providers. If Transmission Provider is not the same entity as the Transmission Owner, then (i) all references in this Article 5.17 to Transmission Provider shall be deemed also to refer to and to include the Transmission Owner, as appropriate, and (ii) this LGIA shall not become effective until such Transmission Owner shall have agreed in writing to assume all of the duties and obligations of Transmission Provider under this Article 5.17 of this LGIA.

5.18 Tax Status. Each Party shall cooperate with the other to maintain the other Party's tax status.

Nothing in this LGIA is intended to adversely affect any Transmission Provider's tax exempt status with respect to the issuance of bonds including, but not limited to, Local Furnishing Bonds.

5.19 Modification.

5.19.1 General. Either Party may undertake modifications to its facilities. If a Party plans to undertake a modification that reasonably may be expected to affect the other Party's facilities, that Party shall provide to the other Party sufficient information regarding such modification so that the other Party may evaluate the potential impact of such modification prior to commencement of the work. Such information shall be deemed to be confidential hereunder and shall include information concerning the timing of such modifications and whether such modifications are expected to interrupt the flow of electricity from the Large Generating Facility. The Party desiring to perform such work shall provide the relevant drawings, plans, and specifications to the other Party at least ninety (90) Calendar Days in advance of the commencement of the work or such shorter period upon which the Parties may agree, which agreement shall not unreasonably be withheld, conditioned or delayed.

In the case of Large Generating Facility modifications that do not require Interconnection Customer to submit an Interconnection Request, Transmission Provider shall provide, within thirty (30) Calendar Days (or such other time as the Parties may agree), an estimate of any additional modifications to the Transmission System, Transmission Provider's Interconnection Facilities or Network Upgrades necessitated by such

Interconnection Customer modification and a good faith estimate of the costs thereof.

5.19.2 Standards. Any additions, modifications, or replacements made to a Party's facilities shall be designed, constructed and operated in accordance with this LGIA and Good Utility Practice.

5.19.3 Modification Costs. Interconnection Customer shall not be directly assigned for the costs of any additions, modifications, or replacements that Transmission Provider makes to Transmission Provider's Interconnection Facilities or the Transmission System to facilitate the interconnection of a third party to Transmission Provider's Interconnection Facilities or the Transmission System, or to provide transmission service to a third party under Transmission Provider's Tariff. Interconnection Customer shall be responsible for the costs of any additions, modifications, or replacements to Interconnection Customer's Interconnection Facilities that may be necessary to maintain or upgrade such Interconnection Customer's Interconnection Facilities consistent with Applicable Laws and Regulations, Applicable Reliability Standards or Good Utility Practice.

Article 6. Testing and Inspection

6.1 Pre-Commercial Operation Date Testing and Modifications. Prior to the Commercial Operation Date, Transmission Provider shall test Transmission Provider's Interconnection Facilities and Network Upgrades and Interconnection Customer shall test the Large Generating Facility and Interconnection Customer's Interconnection Facilities to ensure their safe and reliable operation. Similar testing may be required after initial operation. Each Party shall

make any modifications to its facilities that are found to be necessary as a result of such testing. Interconnection Customer shall bear the cost of all such testing and modifications. Interconnection Customer shall generate test energy at the Large Generating Facility only if it has arranged for the delivery of such test energy.

- 6.2 Post-Commercial Operation Date Testing and Modifications.** Each Party shall at its own expense perform routine inspection and testing of its facilities and equipment in accordance with Good Utility Practice as may be necessary to ensure the continued interconnection of the Large Generating Facility with the Transmission System in a safe and reliable manner. Each Party shall have the right, upon advance written notice, to require reasonable additional testing of the other Party's facilities, at the requesting Party's expense, as may be in accordance with Good Utility Practice.
- 6.3 Right to Observe Testing.** Each Party shall notify the other Party in advance of its performance of tests of its Interconnection Facilities. The other Party has the right, at its own expense, to observe such testing.
- 6.4 Right to Inspect.** Each Party shall have the right, but shall have no obligation to: (i) observe the other Party's tests and/or inspection of any of its System Protection Facilities and other protective equipment, including Power System Stabilizers; (ii) review the settings of the other Party's System Protection Facilities and other protective equipment; and (iii) review the other Party's maintenance records relative to the Interconnection Facilities, the System Protection Facilities and other protective equipment. A Party may exercise these rights from time to time as it deems necessary upon reasonable notice to the other Party. The exercise or non-exercise by a Party of any such rights shall not be construed as an endorsement or confirmation of any element or condition of the Interconnection Facilities or the System Protection Facilities or other protective equipment or the operation thereof,

or as a warranty as to the fitness, safety, desirability, or reliability of same. Any information that a Party obtains through the exercise of any of its rights under this Article 6.4 shall be deemed to be Confidential Information and treated pursuant to Article 22 of this LGIA.

Article 7. Metering

- 7.1 General.** Each Party shall comply with the Applicable Reliability Council requirements. Unless otherwise agreed by the Parties, Transmission Provider shall install Metering Equipment at the Point of Interconnection prior to any operation of the Large Generating Facility and shall own, operate, test and maintain such Metering Equipment. Power flows to and from the Large Generating Facility shall be measured at or, at Transmission Provider's option, compensated to, the Point of Interconnection. Transmission Provider shall provide metering quantities, in analog and/or digital form, to Interconnection Customer upon request. Interconnection Customer shall bear all reasonable documented costs associated with the purchase, installation, operation, testing and maintenance of the Metering Equipment.
- 7.2 Check Meters.** Interconnection Customer, at its option and expense, may install and operate, on its premises and on its side of the Point of Interconnection, one or more check meters to check Transmission Provider's meters. Such check meters shall be for check purposes only and shall not be used for the measurement of power flows for purposes of this LGIA, except as provided in Article 7.4 below. The check meters shall be subject at all reasonable times to inspection and examination by Transmission Provider or its designee. The installation, operation and maintenance thereof shall be performed entirely by Interconnection Customer in accordance with Good Utility Practice.
- 7.3 Standards.** Transmission Provider shall install, calibrate, and test revenue quality Metering Equipment in accordance with applicable ANSI standards.

7.4 Testing of Metering Equipment. Transmission Provider shall inspect and test all Transmission Provider-owned Metering Equipment upon installation and at least once every two (2) years thereafter. If requested to do so by Interconnection Customer, Transmission Provider shall, at Interconnection Customer's expense, inspect or test Metering Equipment more frequently than every two (2) years. Transmission Provider shall give reasonable notice of the time when any inspection or test shall take place, and Interconnection Customer may have representatives present at the test or inspection. If at any time Metering Equipment is found to be inaccurate or defective, it shall be adjusted, repaired or replaced at Interconnection Customer's expense, in order to provide accurate metering, unless the inaccuracy or defect is due to Transmission Provider's failure to maintain, then Transmission Provider shall pay. If Metering Equipment fails to register, or if the measurement made by Metering Equipment during a test varies by more than two percent from the measurement made by the standard meter used in the test, Transmission Provider shall adjust the measurements by correcting all measurements for the period during which Metering Equipment was in error by using Interconnection Customer's check meters, if installed. If no such check meters are installed or if the period cannot be reasonably ascertained, the adjustment shall be for the period immediately preceding the test of the Metering Equipment equal to one-half the time from the date of the last previous test of the Metering Equipment.

7.5 Metering Data. At Interconnection Customer's expense, the metered data shall be telemetered to one or more locations designated by Transmission Provider and one or more locations designated by Interconnection Customer. Such telemetered data shall be used, under normal operating conditions, as the official measurement of the amount of energy delivered from the Large Generating Facility to the Point of Interconnection.

Article 8. Communications

8.1 Interconnection Customer Obligations.

Interconnection Customer shall maintain satisfactory operating communications with Transmission Provider's Transmission System dispatcher or representative designated by Transmission Provider. Interconnection Customer shall provide standard voice line, dedicated voice line and facsimile communications at its Large Generating Facility control room or central dispatch facility through use of either the public telephone system, or a voice communications system that does not rely on the public telephone system.

Interconnection Customer shall also provide the dedicated data circuit(s) necessary to provide Interconnection Customer data to Transmission Provider as set forth in Appendix D, Security Arrangements Details. The data circuit(s) shall extend from the Large Generating Facility to the location(s) specified by Transmission Provider. Any required maintenance of such communications equipment shall be performed by Interconnection Customer. Operational communications shall be activated and maintained under, but not be limited to, the following events: system paralleling or separation, scheduled and unscheduled shutdowns, equipment clearances, and hourly and daily load data.

8.2 Remote Terminal Unit. Prior to the Initial Synchronization Date of the Large Generating Facility, a Remote Terminal Unit, or equivalent data collection and transfer equipment acceptable to the Parties, shall be installed by Interconnection Customer, or by Transmission Provider at Interconnection Customer's expense, to gather accumulated and instantaneous data to be telemetered to the location(s) designated by Transmission Provider through use of a dedicated point-to-point data circuit(s) as indicated in Article 8.1. The communication protocol for the data circuit(s) shall be specified by Transmission Provider. Instantaneous bi-directional analog real power and reactive power flow information must be telemetered directly to the location(s) specified by Transmission Provider.

Each Party will promptly advise the other Party if it detects or otherwise learns of any metering, telemetry or communications equipment errors or malfunctions that require the attention and/or correction by the other Party. The Party owning such equipment shall correct such error or malfunction as soon as reasonably feasible.

8.3 No Annexation. Any and all equipment placed on the premises of a Party shall be and remain the property of the Party providing such equipment regardless of the mode and manner of annexation or attachment to real property, unless otherwise mutually agreed by the Parties.

8.4 Provision of Data from a Variable Energy Resource. The Interconnection Customer whose Generating Facility is a Variable Energy Resource shall provide meteorological and forced outage data to the Transmission Provider to the extent necessary for the Transmission Provider's development and deployment of power production forecasts for that class of Variable Energy Resources. The Interconnection Customer with a Variable Energy Resource having wind as the energy source, at a minimum, will be required to provide the Transmission Provider with site-specific meteorological data including: temperature, wind speed, wind direction, and atmospheric pressure. The Interconnection Customer with a Variable Energy Resource having solar as the energy source, at a minimum, will be required to provide the Transmission Provider with site-specific meteorological data including: temperature, atmospheric pressure, and irradiance. The Transmission Provider and Interconnection Customer whose Generating Facility is a Variable Energy Resource shall mutually agree to any additional meteorological data that are required for the development and deployment of a power production forecast. The Interconnection Customer whose Generating Facility is a Variable Energy Resource also shall submit data to the Transmission Provider regarding all forced outages to the extent necessary for the Transmission Provider's development and deployment of power production forecasts for that class of Variable Energy Resources. The exact

specifications of the meteorological and forced outage data to be provided by the Interconnection Customer to the Transmission Provider, including the frequency and timing of data submittals, shall be made taking into account the size and configuration of the Variable Energy Resource, its characteristics, location, and its importance in maintaining generation resource adequacy and transmission system reliability in its area. All requirements for meteorological and forced outage data must be commensurate with the power production forecasting employed by the Transmission Provider. Such requirements for meteorological and forced outage data are set forth in Appendix C, Interconnection Details, of this LGIA, as they may change from time to time.

Article 9. Operations

9.1 General. Each Party shall comply with the Applicable Reliability Council requirements. Each Party shall provide to the other Party all information that may reasonably be required by the other Party to comply with Applicable Laws and Regulations and Applicable Reliability Standards.

9.2 Control Area Notification. At least three months before Initial Synchronization Date, Interconnection Customer shall notify Transmission Provider in writing of the Control Area in which the Large Generating Facility will be located. If Interconnection Customer elects to locate the Large Generating Facility in a Control Area other than the Control Area in which the Large Generating Facility is physically located, and if permitted to do so by the relevant transmission tariffs, all necessary arrangements, including but not limited to those set forth in Article 7 and Article 8 of this LGIA, and remote Control Area generator interchange agreements, if applicable, and the appropriate measures under such agreements, shall be executed and implemented prior to the placement of the Large Generating Facility in the other Control Area.

9.3 Transmission Provider Obligations. Transmission

Provider shall cause the Transmission System and Transmission Provider's Interconnection Facilities to be operated, maintained and controlled in a safe and reliable manner and in accordance with this LGIA. Transmission Provider may provide operating instructions to Interconnection Customer consistent with this LGIA and Transmission Provider's operating protocols and procedures as they may change from time to time. Transmission Provider will consider changes to its operating protocols and procedures proposed by Interconnection Customer.

9.4 Interconnection Customer Obligations.

Interconnection Customer shall at its own expense operate, maintain and control the Large Generating Facility and Interconnection Customer's Interconnection Facilities in a safe and reliable manner and in accordance with this LGIA. Interconnection Customer shall operate the Large Generating Facility and Interconnection Customer's Interconnection Facilities in accordance with all applicable requirements of the Control Area of which it is part, as such requirements are set forth in Appendix C, Interconnection Details, of this LGIA. Appendix C, Interconnection Details, will be modified to reflect changes to the requirements as they may change from time to time. Either Party may request that the other Party provide copies of the requirements set forth in Appendix C, Interconnection Details, of this LGIA.

9.5 Start-Up and Synchronization. Consistent with the Parties' mutually acceptable procedures, Interconnection Customer is responsible for the proper synchronization of the Large Generating Facility to Transmission Provider's Transmission System.

9.6 Reactive Power and Primary Frequency Response.

9.6.1 Power Factor Design Criteria.

Interconnection Customer shall design the Large Generating Facility to maintain a composite power delivery at continuous rated power output at the Point of

Interconnection at a power factor within the range of 0.95 leading to 0.95 lagging, unless Transmission Provider has established different requirements that apply to all generators in the Control Area on a comparable basis. The requirements of this paragraph shall not apply to wind generators.

9.6.1.1 Synchronous Generation.

Interconnection Customer shall design the Large Generating Facility to maintain a composite power deliver at continuous rated power output at the Point of Interconnection at a power factor within the range of 0.95 leading to 0.95 lagging, unless the Transmission Provider has established different requirements that apply to all synchronous generators in the Control Area on a comparable basis.

9.6.1.2 Non-Synchronous Generation.

Interconnection Customer shall design the Large Generating Facility to maintain composite power delivery at continuous rated power output at the high-side of the generator substation at a power factor within the range of 0.95 leading to 0.95 lagging, unless the Transmission Provider has established a different power factor range that applies to all non-synchronous generators in the Control Area on a comparable basis. This power factor range standard shall be dynamic and can be met using, for example, power electronics designed to supply this level of reactive

capability (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors, or a combination of the two. This requirement shall only apply to newly interconnecting non-synchronous generators that have not yet executed a Facilities Study Agreement as of the effective date of the Final Rule establishing this requirement (Order No. 827).

9.6.2 Voltage Schedules. Once Interconnection Customer has synchronized the Large Generating Facility with the Transmission System, Transmission Provider shall require Interconnection Customer to operate the Large Generating Facility to produce or absorb reactive power within the design limitations of the Large Generating Facility set forth in Article 9.6.1 (Power Factor Design Criteria). Transmission Provider's voltage schedules shall treat all sources of reactive power in the Control Area in an equitable and not unduly discriminatory manner. Transmission Provider shall exercise Reasonable Efforts to provide Interconnection Customer with such schedules at least one (1) day in advance, and may make changes to such schedules as necessary to maintain the reliability of the Transmission System. Interconnection Customer shall operate the Large Generating Facility to maintain the specified output voltage or power factor at the Point of Interconnection within the design limitations of the Large Generating Facility set forth in Article 9.6.1 (Power Factor Design Criteria). If Interconnection Customer is unable to maintain the specified voltage or power

factor, it shall promptly notify the System Operator.

9.6.2.1 Voltage Regulators. Whenever the Large Generating Facility is operated in parallel with the Transmission System and voltage regulators are capable of operation, Interconnection Customer shall operate the Large Generating Facility with its voltage regulators in automatic operation. If the Large Generating Facility's voltage regulators are not capable of such automatic operation, Interconnection Customer shall immediately notify Transmission Provider's system operator, or its designated representative, and ensure that such Large Generating Facility's reactive power production or absorption (measured in MVARs) are within the design capability of the Large Generating Facility's generating unit(s) and steady state stability limits. Interconnection Customer shall not cause its Large Generating Facility to disconnect automatically or instantaneously from the Transmission System or trip any generating unit comprising the Large Generating Facility for an under or over frequency condition unless the abnormal frequency condition persists for a time period beyond the limits set forth in ANSI/IEEE Standard C37.106, or such other standard as applied to other generators in the Control Area on a comparable basis.

9.6.3 Payment for Reactive Power. Transmission Provider is required to pay Interconnection Customer for reactive power that Interconnection Customer provides or absorbs from the Large Generating Facility when Transmission Provider requests Interconnection Customer to operate its Large Generating Facility outside the range specified in Article 9.6.1, provided that if Transmission Provider pays its own or affiliated generators for reactive power service within the specified range, it must also pay Interconnection Customer. Payments shall be pursuant to Article 11.6 or such other agreement to which the Parties have otherwise agreed.

9.6.4 Primary Frequency Response. Interconnection Customer shall ensure the primary frequency response capability of its Large Generating Facility by installing, maintaining, and operating a functioning governor or equivalent controls. The term "functioning governor or equivalent controls" as used herein shall mean the required hardware and/or software that provides frequency responsive real power control with the ability to sense changes in system frequency and autonomously adjust the Large Generating Facility's real power output in accordance with the droop and deadband parameters and in the direction needed to correct frequency deviations. Interconnection Customer is required to install a governor or equivalent controls with the capability of operating:

- (1) with a maximum 5 percent droop and ± 0.036 Hz deadband; or
- (2) in accordance with the relevant droop, deadband, and timely and sustained response settings from an approved NERC Reliability Standard providing for equivalent or more stringent parameters. The droop characteristic shall be: (1) based on the nameplate capacity of the Large Generating Facility, and shall be linear in the range of frequencies between

59 to 61 Hz that are outside of the deadband parameter; or (2) based on an approved NERC Reliability Standard providing for an equivalent or more stringent parameter. The deadband parameter shall be: the range of frequencies above and below nominal (60 Hz) in which the governor or equivalent controls is not expected to adjust the Large Generating Facility's real power output in response to frequency deviations. The deadband shall be implemented: (1) without a step to the droop curve, that is, once the frequency deviation exceeds the deadband parameter, the expected change in the Large Generating Facility's real power output in response to frequency deviations shall start from zero and then increase (for under-frequency deviations) or decrease (for over-frequency deviations) linearly in proportion to the magnitude of the frequency deviation; or (2) in accordance with an approved NERC Reliability Standard providing for an equivalent or more stringent parameter. Interconnection Customer shall notify Transmission Provider that the primary frequency response capability of the Large Generating Facility has been tested and confirmed during commissioning. Once Interconnection Customer has synchronized the Large Generating Facility with the Transmission System, Interconnection Customer shall operate the Large Generating Facility consistent with the provisions specified in Sections 9.6.4.1 and 9.6.4.2 of this Agreement. The primary frequency response requirements contained herein shall apply to both synchronous and non-synchronous Large Generating Facilities.

9.6.4.1 Governor or Equivalent Controls.

Whenever the Large Generating Facility is operated in parallel with the Transmission System, Interconnection Customer shall operate the Large Generating

Facility with its governor or equivalent controls in service and responsive to frequency. Interconnection Customer shall:

- (1) in coordination with Transmission Provider and/or the relevant balancing authority, set the deadband parameter to: (1) a maximum of ± 0.036 Hz and set the droop parameter to a maximum of 5 percent; or (2) implement the relevant droop and deadband settings from an approved NERC Reliability Standard that provides for equivalent or more stringent parameters.

Interconnection Customer shall be required to provide the status and settings of the governor or equivalent controls to Transmission Provider and/or the relevant balancing authority upon request. If Interconnection Customer needs to operate the Large Generating Facility with its governor or equivalent controls not in service, Interconnection Customer shall immediately notify Transmission Provider and the relevant balancing authority, and provide both with the following information: (1) the operating status of the governor or equivalent controls (i.e., whether it is currently out of service or when it will be taken out of service); (2) the reasons for removing the governor or equivalent controls from service; and (3) a reasonable estimate of when the governor or equivalent controls will be returned to service. Interconnection Customer shall make Reasonable Efforts to

return its governor or equivalent controls into service as soon as practicable. Interconnection Customer shall make Reasonable Efforts to keep outages of the Large Generating Facility's governor or equivalent controls to a minimum whenever the Large Generating Facility is operated in parallel with the Transmission System.

9.6.4.2 Timely and Sustained Response.

Interconnection Customer shall ensure that the Large Generating Facility's real power response to sustained frequency deviations outside of the deadband setting is automatically provided and shall begin immediately after frequency deviates outside of the deadband, and to the extent the Large Generating Facility has operating capability in the direction needed to correct the frequency deviation.

Interconnection Customer shall not block or otherwise inhibit the ability of the governor or equivalent controls to respond and shall ensure that the response is not inhibited, except under certain operational constraints including, but not limited to, ambient temperature limitations, physical energy limitations, outages of mechanical equipment, or regulatory requirements. The Large Generating Facility shall sustain the real power response at least until system frequency returns to a value within the deadband setting of the governor or equivalent controls. A

Commission-approved Reliability Standard with equivalent or more stringent requirements shall supersede the above requirements.

9.6.4.3 Exemptions. Large Generating Facilities that are regulated by the United States Nuclear Regulatory Commission shall be exempt from Sections 9.6.4, 9.6.4.1, and 9.6.4.2 of this Agreement. Large Generating Facilities that are behind the meter generation that is sized-to-load (i.e., the thermal load and the generation are near-balanced in real-time operation and the generation is primarily controlled to maintain the unique thermal, chemical, or mechanical output necessary for the operating requirements of its host facility) shall be required to install primary frequency response capability in accordance with the droop and deadband capability requirements specified in Section 9.6.4, but shall be otherwise exempt from the operating requirements in Sections 9.6.4, 9.6.4.1, 9.6.4.2, and 9.6.4.4 of this Agreement.

9.6.4.4 Electric Storage Resources. Interconnection Customer interconnecting an electric storage resource shall establish an operating range in Appendix C of its LGIA that specifies a minimum state of charge and a maximum state of charge between which the electric storage resource will be required to provide primary frequency response consistent with the

conditions set forth in Sections 9.6.4, 9.6.4.1, 9.6.4.2, and 9.6.4.3 of this Agreement. Appendix C shall specify whether the operating range is static or dynamic, and shall consider (1) the expected magnitude of frequency deviations in the interconnection; (2) the expected duration that system frequency will remain outside of the deadband parameter in the interconnection; (3) the expected incidence of frequency deviations outside of the deadband parameter in the interconnection; (4) the physical capabilities of the electric storage resource; (5) operational limitations of the electric storage resource due to manufacturer specifications; and (6) any other relevant factors agreed to by Transmission Provider and Interconnection Customer, and in consultation with the relevant transmission owner or balancing authority as appropriate. If the operating range is dynamic, then Appendix C must establish how frequently the operating range will be reevaluated and the factors that may be considered during its reevaluation.

Interconnection Customer's electric storage resource is required to provide timely and sustained primary frequency response consistent with Section 9.6.4.2 of this Agreement when it is online and dispatched to inject electricity to the Transmission System and/or receive electricity from the

Transmission System. This excludes circumstances when the electric storage resource is not dispatched to inject electricity to the Transmission System and/or dispatched to receive electricity from the Transmission System. If Interconnection Customer's electric storage resource is charging at the time of a frequency deviation outside of its deadband parameter, it is to increase (for over-frequency deviations) or decrease (for under-frequency deviations) the rate at which it is charging in accordance with its droop parameter. Interconnection Customer's electric storage resource is not required to change from charging to discharging, or vice versa, unless the response necessitated by the droop and deadband settings requires it to do so and it is technically capable of making such a transition.

9.7 Outages and Interruptions.

9.7.1 Outages.

9.7.1.1 Outage Authority and Coordination. Each Party may in accordance with Good Utility Practice in coordination with the other Party remove from service any of its respective Interconnection Facilities or Network Upgrades that may impact the other Party's facilities as necessary to perform maintenance or testing or to install or replace equipment. Absent an Emergency Condition, the Party

scheduling a removal of such facility(ies) from service will use Reasonable Efforts to schedule such removal on a date and time mutually acceptable to the Parties. In all circumstances, any Party planning to remove such facility(ies) from service shall use Reasonable Efforts to minimize the effect on the other Party of such removal.

9.7.1.2 Outage Schedules. Transmission Provider shall post scheduled outages of its transmission facilities on the OASIS. Interconnection Customer shall submit its planned maintenance schedules for the Large Generating Facility to Transmission Provider for a minimum of a rolling twenty-four month period. Interconnection Customer shall update its planned maintenance schedules as necessary. Transmission Provider may request Interconnection Customer to reschedule its maintenance as necessary to maintain the reliability of the Transmission System; provided, however, adequacy of generation supply shall not be a criterion in determining Transmission System reliability. Transmission Provider shall compensate Interconnection Customer for any additional direct costs that Interconnection Customer incurs as a result of having to reschedule maintenance, including any additional overtime, breaking of maintenance contracts or other costs above and beyond the cost Interconnection Customer would

have incurred absent Transmission Provider's request to reschedule maintenance. Interconnection Customer will not be eligible to receive compensation, if during the twelve (12) months prior to the date of the scheduled maintenance, Interconnection Customer had modified its schedule of maintenance activities.

9.7.1.3 Outage Restoration. If an outage on a Party's Interconnection Facilities or Network Upgrades adversely affects the other Party's operations or facilities, the Party that owns or controls the facility that is out of service shall use Reasonable Efforts to promptly restore such facility(ies) to a normal operating condition consistent with the nature of the outage. The Party that owns or controls the facility that is out of service shall provide the other Party, to the extent such information is known, information on the nature of the Emergency Condition, an estimated time of restoration, and any corrective actions required. Initial verbal notice shall be followed up as soon as practicable with written notice explaining the nature of the outage.

9.7.2 Interruption of Service. If required by Good Utility Practice to do so, Transmission Provider may require Interconnection Customer to interrupt or reduce deliveries of electricity if such delivery of electricity could adversely affect Transmission Provider's ability to

perform such activities as are necessary to safely and reliably operate and maintain the Transmission System. The following provisions shall apply to any interruption or reduction permitted under this Article 9.7.2:

- 9.7.2.1** The interruption or reduction shall continue only for so long as reasonably necessary under Good Utility Practice;
- 9.7.2.2** Any such interruption or reduction shall be made on an equitable, non-discriminatory basis with respect to all generating facilities directly connected to the Transmission System;
- 9.7.2.3** When the interruption or reduction must be made under circumstances which do not allow for advance notice, Transmission Provider shall notify Interconnection Customer by telephone as soon as practicable of the reasons for the curtailment, interruption, or reduction, and, if known, its expected duration. Telephone notification shall be followed by written notification as soon as practicable;
- 9.7.2.4** Except during the existence of an Emergency Condition, when the interruption or reduction can be scheduled without advance notice, Transmission Provider shall notify Interconnection Customer in advance regarding the timing of such scheduling and further notify Interconnection Customer of the expected duration.

Transmission Provider shall coordinate with Interconnection Customer using Good Utility Practice to schedule the interruption or reduction during periods of least impact to Interconnection Customer and Transmission Provider;

- 9.7.2.5** The Parties shall cooperate and coordinate with each other to the extent necessary in order to restore the Large Generating Facility, Interconnection Facilities, and the Transmission System to their normal operating state, consistent with system conditions and Good Utility Practice.

9.7.3

Under-Frequency and Over Frequency

Conditions. The Transmission System is designed to automatically activate a load-shed program as required by the Applicable Reliability Council in the event of an under-frequency system disturbance. Interconnection Customer shall implement under-frequency and over-frequency relay set points for the Large Generating Facility as required by the Applicable Reliability Council to ensure "ride through" capability of the Transmission System. Large Generating Facility response to frequency deviations of predetermined magnitudes, both under-frequency and over-frequency deviations, shall be studied and coordinated with Transmission Provider in accordance with Good Utility Practice. The term "ride through" as used herein shall mean the ability of a Generating Facility to stay connected to and synchronized with the Transmission System during system disturbances within a range of under-frequency and over-frequency conditions,

in accordance with Good Utility Practice.

9.7.4 System Protection and Other Control Requirements.

9.7.4.1 System Protection Facilities.

Interconnection Customer shall, at its expense, install, operate and maintain System Protection Facilities as a part of the Large Generating Facility or Interconnection Customer's Interconnection Facilities. Transmission Provider shall install at Interconnection Customer's expense any System Protection Facilities that may be required on Transmission Provider's Interconnection Facilities or the Transmission System as a result of the interconnection of the Large Generating Facility and Interconnection Customer's Interconnection Facilities.

9.7.4.2 Each Party's protection facilities shall be designed and coordinated with other systems in accordance with Good Utility Practice.

9.7.4.3 Each Party shall be responsible for protection of its facilities consistent with Good Utility Practice.

9.7.4.4 Each Party's protective relay design shall incorporate the necessary test switches to perform the tests required in Article 6. The required test switches will be placed such that they allow operation of lockout relays while preventing breaker

failure schemes from operating and causing unnecessary breaker operations and/or the tripping of Interconnection Customer's units.

9.7.4.5 Each Party will test, operate and maintain System Protection Facilities in accordance with Good Utility Practice.

9.7.4.6 Prior to the In-Service Date, and again prior to the Commercial Operation Date, each Party or its agent shall perform a complete calibration test and functional trip test of the System Protection Facilities. At intervals suggested by Good Utility Practice and following any apparent malfunction of the System Protection Facilities, each Party shall perform both calibration and functional trip tests of its System Protection Facilities. These tests do not require the tripping of any in-service generation unit. These tests do, however, require that all protective relays and lockout contacts be activated.

9.7.5 **Requirements for Protection.** In compliance with Good Utility Practice, Interconnection Customer shall provide, install, own, and maintain relays, circuit breakers and all other devices necessary to remove any fault contribution of the Large Generating Facility to any short circuit occurring on the Transmission System not otherwise isolated by Transmission Provider's equipment, such that the removal of the fault contribution shall be coordinated with the protective requirements of the Transmission System. Such protective equipment shall include,

without limitation, a disconnecting device or switch with load-interrupting capability located between the Large Generating Facility and the Transmission System at a site selected upon mutual agreement (not to be unreasonably withheld, conditioned or delayed) of the Parties. Interconnection Customer shall be responsible for protection of the Large Generating Facility and Interconnection Customer's other equipment from such conditions as negative sequence currents, over- or under-frequency, sudden load rejection, over- or under-voltage, and generator loss-of-field. Interconnection Customer shall be solely responsible to disconnect the Large Generating Facility and Interconnection Customer's other equipment if conditions on the Transmission System could adversely affect the Large Generating Facility.

9.7.6 Power Quality. Neither Party's facilities shall cause excessive voltage flicker nor introduce excessive distortion to the sinusoidal voltage or current waves as defined by ANSI Standard C84.1-1989, in accordance with IEEE Standard 519, or any applicable superseding electric industry standard. In the event of a conflict between ANSI Standard C84.1-1989, or any applicable superseding electric industry standard, ANSI Standard C84.1-1989, or the applicable superseding electric industry standard, shall control.

9.8 Switching and Tagging Rules. Each Party shall provide the other Party a copy of its switching and tagging rules that are applicable to the other Party's activities. Such switching and tagging rules shall be developed on a non-discriminatory basis. The Parties shall comply with applicable switching and tagging rules, as amended from time to time, in obtaining clearances for work or for switching operations on equipment.

9.9 Use of Interconnection Facilities by Third Parties.

9.9.1 Purpose of Interconnection Facilities. Except as may be required by Applicable Laws and Regulations, or as otherwise agreed to among the Parties, the Interconnection Facilities shall be constructed for the sole purpose of interconnecting the Large Generating Facility to the Transmission System and shall be used for no other purpose.

9.9.2 Third Party Users. If required by Applicable Laws and Regulations or if the Parties mutually agree, such agreement not to be unreasonably withheld, to allow one or more third parties to use Transmission Provider's Interconnection Facilities, or any part thereof, Interconnection Customer will be entitled to compensation for the capital expenses it incurred in connection with the Interconnection Facilities based upon the pro rata use of the Interconnection Facilities by Transmission Provider, all third party users, and Interconnection Customer, in accordance with Applicable Laws and Regulations or upon some other mutually-agreed upon methodology. In addition, cost responsibility for ongoing costs, including operation and maintenance costs associated with the Interconnection Facilities, will be allocated between Interconnection Customer and any third party users based upon the pro rata use of the Interconnection Facilities by Transmission Provider, all third party users, and Interconnection Customer, in accordance with Applicable Laws and Regulations or upon some other mutually agreed upon methodology. If the issue of such compensation or allocation cannot be resolved through such negotiations, it shall be submitted to FERC for resolution.

9.10 Disturbance Analysis Data Exchange. The Parties will cooperate with one another in the analysis of disturbances to either the Large Generating Facility or Transmission Provider's Transmission System by gathering and providing access to any information relating to any disturbance, including information from oscillography, protective relay targets, breaker operations and sequence of events records, and any disturbance information required by Good Utility Practice.

Article 10. Maintenance

10.1 Transmission Provider Obligations. Transmission Provider shall maintain the Transmission System and Transmission Provider's Interconnection Facilities in a safe and reliable manner and in accordance with this LGIA.

10.2 Interconnection Customer Obligations. Interconnection Customer shall maintain the Large Generating Facility and Interconnection Customer's Interconnection Facilities in a safe and reliable manner and in accordance with this LGIA.

10.3 Coordination. The Parties shall confer regularly to coordinate the planning, scheduling and performance of preventive and corrective maintenance on the Large Generating Facility and the Interconnection Facilities.

10.4 Secondary Systems. Each Party shall cooperate with the other in the inspection, maintenance, and testing of control or power circuits that operate below 600 volts, AC or DC, including, but not limited to, any hardware, control or protective devices, cables, conductors, electric raceways, secondary equipment panels, transducers, batteries, chargers, and voltage and current transformers that directly affect the operation of a Party's facilities and equipment which may reasonably be expected to impact the other Party. Each Party shall provide advance notice to the other Party before undertaking any work on such circuits, especially on electrical circuits involving circuit

breaker trip and close contacts, current transformers, or potential transformers.

- 10.5 Operating and Maintenance Expenses.** Subject to the provisions herein addressing the use of facilities by others, and except for operations and maintenance expenses associated with modifications made for providing interconnection or transmission service to a third party and such third party pays for such expenses, Interconnection Customer shall be responsible for all reasonable expenses including overheads, associated with: (1) owning, operating, maintaining, repairing, and replacing Interconnection Customer's Interconnection Facilities; and (2) operation, maintenance, repair and replacement of Transmission Provider's Interconnection Facilities.

Article 11. Performance Obligation

- 11.1 Interconnection Customer Interconnection Facilities.** Interconnection Customer shall design, procure, construct, install, own and/or control Interconnection Customer Interconnection Facilities described in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades, at its sole expense.
- 11.2 Transmission Provider's Interconnection Facilities.** Transmission Provider or Transmission Owner shall design, procure, construct, install, own and/or control the Transmission Provider's Interconnection Facilities described in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades, at the sole expense of the Interconnection Customer.
- 11.3 Network Upgrades and Distribution Upgrades.** Transmission Provider or Transmission Owner shall design, procure, construct, install, and own the Network Upgrades and Distribution Upgrades described in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades. The Interconnection Customer shall be responsible for all costs related to Distribution Upgrades. Unless Transmission Provider or Transmission Owner elects to

fund the capital for the Network Upgrades, they shall be solely funded by Interconnection Customer. In the event that Transmission Provider must change the voltage levels of a discrete portion of the Transmission System to which the Interconnection Customer is connected, Transmission Provider shall give reasonable notice of such change and the Interconnection Customer shall be solely responsible for all costs related to upgrades or modifications to Interconnection Customer's Interconnection Facilities resulting from Transmission Provider's increase in the voltage levels of the Transmission System, in order to remain interconnected with the Transmission System at the new operating voltage. To the extent that the modifications necessary to upgrade Interconnection Facilities qualify as Network Upgrades, Transmission Provider shall be solely responsible for the expense of such modifications or upgrades.

11.4 Transmission Credits.

11.4.1 Repayment of Amounts Advanced for Network Upgrades. Interconnection Customer shall be entitled to a cash repayment, equal to the total amount paid to Transmission Provider and Affected System Operator, if any, for the Network Upgrades, including any tax gross-up or other tax-related payments associated with Network Upgrades, and not refunded to Interconnection Customer pursuant to Article 5.17.8 or otherwise, to be paid to Interconnection Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, as payments are made under Transmission Provider's Tariff and Affected System's Tariff for transmission services with respect to the Large Generating Facility. Any repayment shall include interest calculated in accordance with the methodology set forth in FERC's regulations at 18 C.F.R. § 35.19a(a)(2)(iii) from the date of any

payment for Network Upgrades through the date on which the Interconnection Customer receives a repayment of such payment pursuant to this subparagraph. Interconnection Customer may assign such repayment rights to any person.

Notwithstanding the foregoing, Interconnection Customer, Transmission Provider, and Affected System Operator may adopt any alternative payment schedule that is mutually agreeable so long as Transmission Provider and Affected System Operator take one of the following actions no later than five years from the Commercial Operation Date: (1) return to Interconnection Customer any amounts advanced for Network Upgrades not previously repaid, or (2) declare in writing that Transmission Provider or Affected System Operator will continue to provide payments to Interconnection Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, or develop an alternative schedule that is mutually agreeable and provides for the return of all amounts advanced for Network Upgrades not previously repaid; however, full reimbursement shall not extend beyond twenty (20) years from the Commercial Operation Date.

If the Large Generating Facility fails to achieve commercial operation, but it or another Generating Facility is later constructed and makes use of the Network Upgrades, Transmission Provider and Affected System Operator shall at that time reimburse Interconnection Customer for the amounts advanced for the Network Upgrades. Before any such reimbursement can occur, the Interconnection Customer, or the entity that ultimately constructs the Generating Facility, if different, is

responsible for identifying the entity to which reimbursement must be made.

11.4.2 Special Provisions for Affected Systems.

Unless Transmission Provider provides, under the LGIA, for the repayment of amounts advanced to Affected System Operator for Network Upgrades, Interconnection Customer and Affected System Operator shall enter into an agreement that provides for such repayment. The agreement shall specify the terms governing payments to be made by Interconnection Customer to the Affected System Operator as well as the repayment by the Affected System Operator.

11.4.3 Notwithstanding any other provision of this LGIA, nothing herein shall be construed as relinquishing or foreclosing any rights, including but not limited to firm transmission rights, capacity rights, transmission congestion rights, or transmission credits, that Interconnection Customer, shall be entitled to, now or in the future under any other agreement or tariff as a result of, or otherwise associated with, the transmission capacity, if any, created by the Network Upgrades, including the right to obtain cash reimbursements or transmission credits for transmission service that is not associated with the Large Generating Facility.

11.5 Provision of Security. At least thirty (30) Calendar Days prior to the commencement of the first of the following to occur: design, procurement, installation, or construction of a discrete portion of a Transmission Provider's Interconnection Facilities, Network Upgrades, or Distribution Upgrades, Interconnection Customer shall provide Transmission Provider, at Interconnection Customer's option, a guarantee, a surety bond, letter of credit or other form of security that is reasonably

acceptable to Transmission Provider and is consistent with the Uniform Commercial Code of the jurisdiction identified in Article 14.2.1. Such security for payment shall be in an amount sufficient to cover the costs for constructing, designing, procuring, and installing the applicable portion of Transmission Provider's Interconnection Facilities, Network Upgrades, or Distribution Upgrades and shall be reduced on a dollar-for-dollar basis for payments made to Transmission Provider for these purposes.

In addition:

- 11.5.1** The guarantee must be made by an entity that meets the creditworthiness requirements of Transmission Provider, and contain terms and conditions that guarantee payment of any amount that may be due from Interconnection Customer, up to an agreed-to maximum amount.
- 11.5.2** The letter of credit must be issued by a financial institution reasonably acceptable to Transmission Provider and must indicate that it would only expire upon final payment made to Transmission Provider to cover all relevant costs for designing, procuring, installing, and constructing the applicable portion of Interconnection Facilities, Network Upgrades, or Distribution Upgrades for which the letter of credit was provided.
- 11.5.3** The surety bond must be issued by an insurer reasonably acceptable to Transmission Provider and must indicate that it would only expire upon final payment made to Transmission Provider to cover all relevant costs for designing, procuring, installing, and constructing the applicable portion of Interconnection Facilities, Network Upgrades, or Distribution Upgrades for which the surety bond was provided.

11.6 Interconnection Customer Compensation. If Transmission Provider requests or directs Interconnection Customer to provide a service pursuant to Articles 9.6.3 (Payment for Reactive Power), or 13.5.1 of this LGIA, Transmission Provider shall compensate Interconnection Customer in accordance with Interconnection Customer's applicable rate schedule then in effect unless the provision of such service(s) is subject to an RTO or ISO FERC-approved rate schedule. Interconnection Customer shall serve Transmission Provider or RTO or ISO with any filing of a proposed rate schedule at the time of such filing with FERC. To the extent that no rate schedule is in effect at the time the Interconnection Customer is required to provide or absorb any Reactive Power under this LGIA, Transmission Provider agrees to compensate Interconnection Customer in such amount as would have been due Interconnection Customer had the rate schedule been in effect at the time service commenced; provided, however, that such rate schedule must be filed at FERC or other appropriate Governmental Authority within sixty (60) Calendar Days of the commencement of service.

11.6.1 Interconnection Customer Compensation for Actions During Emergency Condition.

Transmission Provider or RTO or ISO shall compensate Interconnection Customer for its provision of real and reactive power and other Emergency Condition services that Interconnection Customer provides to support the Transmission System during an Emergency Condition in accordance with Article 11.6.

Article 12. Invoice

12.1 General. Each Party shall submit to the other Party, on a monthly basis, invoices of amounts due for the preceding month. Each invoice shall state the month to which the invoice applies and fully describe the services and equipment provided. The Parties may discharge mutual debts and payment obligations due and owing to each other on the same date through netting, in which case all amounts a Party owes to

the other Party under this LGIA, including interest payments or credits, shall be netted so that only the net amount remaining due shall be paid by the owing Party.

12.2 Final Invoice. Within six months after completion of the construction of Transmission Provider's Interconnection Facilities and the Network Upgrades, Transmission Provider shall provide an invoice of the final cost of the construction of Transmission Provider's Interconnection Facilities and the Network Upgrades and shall set forth such costs in sufficient detail to enable Interconnection Customer to compare the actual costs with the estimates and to ascertain deviations, if any, from the cost estimates. Transmission Provider shall refund to Interconnection Customer any amount by which the actual payment by Interconnection Customer for estimated costs exceeds the actual costs of construction within thirty (30) Calendar Days of the issuance of such final construction invoice.

12.3 Payment. Invoices shall be rendered to the paying Party at the address specified in Appendix F. The Party receiving the invoice shall pay the invoice within thirty (30) Calendar Days of receipt. All payments shall be made in immediately available funds payable to the other Party, or by wire transfer to a bank named and account designated by the invoicing Party. Payment of invoices by either Party will not constitute a waiver of any rights or claims either Party may have under this LGIA.

12.4 Disputes. In the event of a billing dispute between Transmission Provider and Interconnection Customer, Transmission Provider shall continue to provide Interconnection Service under this LGIA as long as Interconnection Customer: (i) continues to make all payments not in dispute; and (ii) pays to Transmission Provider or into an independent escrow account the portion of the invoice in dispute, pending resolution of such dispute. If Interconnection Customer fails to meet these two requirements for continuation of service, then Transmission Provider may provide notice to

Interconnection Customer of a Default pursuant to Article 17. Within thirty (30) Calendar Days after the resolution of the dispute, the Party that owes money to the other Party shall pay the amount due with interest calculated in accord with the methodology set forth in FERC's regulations at 18 CFR § 35.19a(a)(2)(iii).

Article 13. Emergencies

- 13.1 Definition.** "Emergency Condition" shall mean a condition or situation: (i) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (ii) that, in the case of Transmission Provider, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to the Transmission System, Transmission Provider's Interconnection Facilities or the Transmission Systems of others to which the Transmission System is directly connected; or (iii) that, in the case of Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Large Generating Facility or Interconnection Customer's Interconnection Facilities' System restoration and black start shall be considered Emergency Conditions; provided, that Interconnection Customer is not obligated by this LGIA to possess black start capability.
- 13.2 Obligations.** Each Party shall comply with the Emergency Condition procedures of the applicable ISO/RTO, NERC, the Applicable Reliability Council, Applicable Laws and Regulations, and any emergency procedures agreed to by the Joint Operating Committee.
- 13.3 Notice.** Transmission Provider shall notify Interconnection Customer promptly when it becomes aware of an Emergency Condition that affects Transmission Provider's Interconnection Facilities or the Transmission System that may reasonably be expected to affect Interconnection Customer's operation of the Large Generating Facility or

Interconnection Customer's Interconnection Facilities. Interconnection Customer shall notify Transmission Provider promptly when it becomes aware of an Emergency Condition that affects the Large Generating Facility or Interconnection Customer's Interconnection Facilities that may reasonably be expected to affect the Transmission System or Transmission Provider's Interconnection Facilities. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of Interconnection Customer's or Transmission Provider's facilities and operations, its anticipated duration and the corrective action taken and/or to be taken. The initial notice shall be followed as soon as practicable with written notice.

13.4 Immediate Action. Unless, in Interconnection Customer's reasonable judgment, immediate action is required, Interconnection Customer shall obtain the consent of Transmission Provider, such consent to not be unreasonably withheld, prior to performing any manual switching operations at the Large Generating Facility or Interconnection Customer's Interconnection Facilities in response to an Emergency Condition either declared by Transmission Provider or otherwise regarding the Transmission System.

13.5 Transmission Provider Authority.

13.5.1 General. Transmission Provider may take whatever actions or inactions with regard to the Transmission System or Transmission Provider's Interconnection Facilities it deems necessary during an Emergency Condition in order to (i) preserve public health and safety, (ii) preserve the reliability of the Transmission System or Transmission Provider's Interconnection Facilities, (iii) limit or prevent damage, and (iv) expedite restoration of service.

Transmission Provider shall use Reasonable

Efforts to minimize the effect of such actions or inactions on the Large Generating Facility or Interconnection Customer's Interconnection Facilities. Transmission Provider may, on the basis of technical considerations, require the Large Generating Facility to mitigate an Emergency Condition by taking actions necessary and limited in scope to remedy the Emergency Condition, including, but not limited to, directing Interconnection Customer to shut-down, start-up, increase or decrease the real or reactive power output of the Large Generating Facility; implementing a reduction or disconnection pursuant to Article 13.5.2; directing Interconnection Customer to assist with blackstart (if available) or restoration efforts; or altering the outage schedules of the Large Generating Facility and Interconnection Customer's Interconnection Facilities. Interconnection Customer shall comply with all of Transmission Provider's operating instructions concerning Large Generating Facility real power and reactive power output within the manufacturer's design limitations of the Large Generating Facility's equipment that is in service and physically available for operation at the time, in compliance with Applicable Laws and Regulations.

13.5.2 Reduction and Disconnection. Transmission Provider may reduce Interconnection Service or disconnect the Large Generating Facility or Interconnection Customer's Interconnection Facilities, when such, reduction or disconnection is necessary under Good Utility Practice due to Emergency Conditions. These rights are separate and distinct from any right of curtailment of Transmission Provider pursuant to Transmission Provider's Tariff. When Transmission Provider can schedule the reduction or disconnection in advance,

Transmission Provider shall notify Interconnection Customer of the reasons, timing and expected duration of the reduction or disconnection. Transmission Provider shall coordinate with Interconnection Customer using Good Utility Practice to schedule the reduction or disconnection during periods of least impact to Interconnection Customer and Transmission Provider. Any reduction or disconnection shall continue only for so long as reasonably necessary under Good Utility Practice. The Parties shall cooperate with each other to restore the Large Generating Facility, the Interconnection Facilities, and the Transmission System to their normal operating state as soon as practicable consistent with Good Utility Practice.

13.6 Interconnection Customer Authority. Consistent with Good Utility Practice and the LGIA and the LGIP, Interconnection Customer may take actions or inactions with regard to the Large Generating Facility or Interconnection Customer's Interconnection Facilities during an Emergency Condition in order to (i) preserve public health and safety, (ii) preserve the reliability of the Large Generating Facility or Interconnection Customer's Interconnection Facilities, (iii) limit or prevent damage, and (iv) expedite restoration of service. Interconnection Customer shall use Reasonable Efforts to minimize the effect of such actions or inactions on the Transmission System and Transmission Provider's Interconnection Facilities. Transmission Provider shall use Reasonable Efforts to assist Interconnection Customer in such actions.

13.7 Limited Liability. Except as otherwise provided in Article 11.6.1 of this LGIA, neither Party shall be liable to the other for any action it takes in responding to an Emergency Condition so long as such action is made in good faith and is consistent with Good Utility Practice.

Article 14. Regulatory Requirements and Governing Law

14.1 Regulatory Requirements. Each Party's obligations under this LGIA shall be subject to its receipt of any required approval or certificate from one or more Governmental Authorities in the form and substance satisfactory to the applying Party, or the Party making any required filings with, or providing notice to, such Governmental Authorities, and the expiration of any time period associated therewith. Each Party shall in good faith seek and use its Reasonable Efforts to obtain such other approvals. Nothing in this LGIA shall require Interconnection Customer to take any action that could result in its inability to obtain, or its loss of, status or exemption under the Federal Power Act, the Public Utility Holding Company Act of 1935, as amended, or the Public Utility Regulatory Policies Act of 1978.

14.2 Governing Law.

14.2.1 The validity, interpretation and performance of this LGIA and each of its provisions shall be governed by the laws of the state where the Point of Interconnection is located, without regard to its conflicts of law principles.

14.2.2 This LGIA is subject to all Applicable Laws and Regulations.

14.2.3 Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, rules, or regulations of a Governmental Authority.

Article 15. Notices.

15.1 General. Unless otherwise provided in this LGIA, any notice, demand or request required or permitted to be given by either Party to the other and any instrument required or permitted to be tendered or delivered by either Party in writing to the other shall be effective when delivered and may be so given, tendered or delivered, by recognized national courier, or by depositing the same with the United

States Postal Service with postage prepaid, for delivery by certified or registered mail, addressed to the Party, or personally delivered to the Party, at the address set out in Appendix F, Addresses for Delivery of Notices and Billings.

Either Party may change the notice information in this LGIA by giving five (5) Business Days written notice prior to the effective date of the change.

15.2 Billings and Payments. Billings and payments shall be sent to the addresses set out in Appendix F.

15.3 Alternative Forms of Notice. Any notice or request required or permitted to be given by a Party to the other and not required by this Agreement to be given in writing may be so given by telephone, facsimile or email to the telephone numbers and email addresses set out in Appendix F.

15.4 Operations and Maintenance Notice. Each Party shall notify the other Party in writing of the identity of the person(s) that it designates as the point(s) of contact with respect to the implementation of Articles 9 and 10.

Article 16. Force Majeure

16.1 Force Majeure.

16.1.1 Economic hardship is not considered a Force Majeure event.

16.1.2 Neither Party shall be considered to be in Default with respect to any obligation hereunder, (including obligations under Article 4), other than the obligation to pay money when due, if prevented from fulfilling such obligation by Force Majeure. A Party unable to fulfill any obligation hereunder (other than an obligation to pay money when due) by reason of Force Majeure shall give notice and the full particulars of such Force Majeure to the other Party in writing or

by telephone as soon as reasonably possible after the occurrence of the cause relied upon. Telephone notices given pursuant to this article shall be confirmed in writing as soon as reasonably possible and shall specifically state full particulars of the Force Majeure, the time and date when the Force Majeure occurred and when the Force Majeure is reasonably expected to cease. The Party affected shall exercise due diligence to remove such disability with reasonable dispatch, but shall not be required to accede or agree to any provision not satisfactory to it in order to settle and terminate a strike or other labor disturbance.

Article 17. Default

17.1 Default

17.1.1 General. No Default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of Force Majeure as defined in this LGIA or the result of an act of omission of the other Party. Upon a Breach, the non-breaching Party shall give written notice of such Breach to the breaching Party. Except as provided in Article 17.1.2, the breaching Party shall have thirty (30) Calendar Days from receipt of the Default notice within which to cure such Breach; provided however, if such Breach is not capable of cure within thirty (30) Calendar Days, the breaching Party shall commence such cure within thirty (30) Calendar Days after notice and continuously and diligently complete such cure within ninety (90) Calendar Days from receipt of the Default notice; and, if cured within such time, the Breach specified in such notice shall cease to exist.

17.1.2 Right to Terminate. If a Breach is not cured as provided in this article, or if a Breach is not capable of being cured within the period provided for herein, the non-breaching Party shall have the right to declare a Default and terminate this LGIA by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not that Party terminates this LGIA, to recover from the breaching Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this article will survive termination of this LGIA.

Article 18. Indemnity, Consequential Damages and Insurance

18.1 Indemnity. The Parties shall at all times indemnify, defend, and hold the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or inactions of its obligations under this LGIA on behalf of the Indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the Indemnified Party.

18.1.1 Indemnified Person. If an Indemnified Person is entitled to indemnification under this Article 18 as a result of a claim by a third party, and the indemnifying Party fails, after notice and reasonable opportunity to proceed under Article 18.1, to assume the defense of such claim, such Indemnified Person may at the expense of the indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

18.1.2 Indemnifying Party. If an Indemnifying Party is obligated to indemnify and hold any Indemnified Person harmless under this Article 18, the amount owing to the Indemnified Person shall be the amount of such Indemnified Person's actual Loss, net of any insurance or other recovery.

18.1.3 Indemnity Procedures. Promptly after receipt by an Indemnified Person of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in Article 18.1 may apply, the Indemnified Person shall notify the Indemnifying Party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying Party.

The Indemnifying Party shall have the right to assume the defense thereof with counsel designated by such Indemnifying Party and reasonably satisfactory to the Indemnified Person. If the defendants in any such action include one or more Indemnified Persons and the Indemnifying Party and if the Indemnified Person reasonably concludes that there may be legal defenses available to it and/or other Indemnified Persons which are different from or additional to those available to the Indemnifying Party, the Indemnified Person shall have the right to select separate counsel to assert such legal defenses and to otherwise participate in the defense of such action on its own behalf. In such instances, the Indemnifying Party shall only be required to pay the fees and expenses of one additional attorney to represent an Indemnified Person or Indemnified Persons

having such differing or additional legal defenses.

The Indemnified Person shall be entitled, at its expense, to participate in any such action, suit or proceeding, the defense of which has been assumed by the Indemnifying Party. Notwithstanding the foregoing, the Indemnifying Party (i) shall not be entitled to assume and control the defense of any such action, suit or proceedings if and to the extent that, in the opinion of the Indemnified Person and its counsel, such action, suit or proceeding involves the potential imposition of criminal liability on the Indemnified Person, or there exists a conflict or adversity of interest between the Indemnified Person and the Indemnifying Party, in such event the Indemnifying Party shall pay the reasonable expenses of the Indemnified Person, and (ii) shall not settle or consent to the entry of any judgment in any action, suit or proceeding without the consent of the Indemnified Person, which shall not be reasonably withheld, conditioned or delayed.

18.2 Consequential Damages. Other than the Liquidated Damages heretofore described, in no event shall either Party be liable under any provision of this LGIA for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to the other Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

18.3 Insurance. Each party shall, at its own expense,

maintain in force throughout the period of this LGIA, and until released by the other Party, the following minimum insurance coverages, with insurers authorized to do business in the state where the Point of Interconnection is located:

- 18.3.1** Employers' Liability and Workers' Compensation Insurance providing statutory benefits in accordance with the laws and regulations of the state in which the Point of Interconnection is located.
- 18.3.2** Commercial General Liability Insurance including premises and operations, personal injury, broad form property damage, broad form blanket contractual liability coverage (including coverage for the contractual indemnification) products and completed operations coverage, coverage for explosion, collapse and underground hazards, independent contractors coverage, coverage for pollution to the extent normally available and punitive damages to the extent normally available and a cross liability endorsement, with minimum limits of One Million Dollars (\$1,000,000) per occurrence/One Million Dollars (\$1,000,000) aggregate combined single limit for personal injury, bodily injury, including death and property damage.
- 18.3.3** Comprehensive Automobile Liability Insurance for coverage of owned and non-owned and hired vehicles, trailers or semi-trailers designed for travel on public roads, with a minimum, combined single limit of One Million Dollars (\$1,000,000) per occurrence for bodily injury, including death, and property damage.
- 18.3.4** Excess Public Liability Insurance over and above the Employers' Liability Commercial General Liability and Comprehensive

Automobile Liability Insurance coverage, with a minimum combined single limit of Twenty Million Dollars (\$20,000,000) per occurrence/Twenty Million Dollars (\$20,000,000) aggregate.

18.3.5 The Commercial General Liability Insurance, Comprehensive Automobile Insurance and Excess Public Liability Insurance policies shall name the other Party, its parent, associated and Affiliate companies and their respective directors, officers, agents, servants and employees ("Other Party Group") as additional insured. All policies shall contain provisions whereby the insurers waive all rights of subrogation in accordance with the provisions of this LGIA against the Other Party Group and provide thirty (30) Calendar Days advance written notice to the Other Party Group prior to anniversary date of cancellation or any material change in coverage or condition.

18.3.6 The Commercial General Liability Insurance, Comprehensive Automobile Liability Insurance and Excess Public Liability Insurance policies shall contain provisions that specify that the policies are primary and shall apply to such extent without consideration for other policies separately carried and shall state that each insured is provided coverage as though a separate policy had been issued to each, except the insurer's liability shall not be increased beyond the amount for which the insurer would have been liable had only one insured been covered. Each Party shall be responsible for its respective deductibles or retentions.

18.3.7 The Commercial General Liability Insurance, Comprehensive Automobile Liability Insurance and Excess Public

Liability Insurance policies, if written on a Claims First Made Basis, shall be maintained in full force and effect for two (2) years after termination of this LGIA, which coverage may be in the form of tail coverage or extended reporting period coverage if agreed by the Parties.

- 18.3.8** The requirements contained herein as to the types and limits of all insurance to be maintained by the Parties are not intended to and shall not in any manner, limit or qualify the liabilities and obligations assumed by the Parties under this LGIA.
- 18.3.9** Within ten (10) days following execution of this LGIA, and as soon as practicable after the end of each fiscal year or at the renewal of the insurance policy and in any event within ninety (90) days thereafter, each Party shall provide certification of all insurance required in this LGIA, executed by each insurer or by an authorized representative of each insurer.
- 18.3.10** Notwithstanding the foregoing, each Party may self-insure to meet the minimum insurance requirements of Articles 18.3.2 through 18.3.8 to the extent it maintains a self-insurance program; provided that, such Party's senior secured debt is rated at investment grade or better by Standard & Poor's and that its self-insurance program meets the minimum insurance requirements of Articles 18.3.2 through 18.3.8. For any period of time that a Party's senior secured debt is unrated by Standard & Poor's or is rated at less than investment grade by Standard & Poor's, such Party shall comply with the insurance requirements applicable to it under Articles 18.3.2 through 18.3.9. In the event that a Party is permitted to self-

insure pursuant to this article, it shall notify the other Party that it meets the requirements to self-insure and that its self-insurance program meets the minimum insurance requirements in a manner consistent with that specified in Article 18.3.9.

18.3.11 The Parties agree to report to each other in writing as soon as practical all accidents or occurrences resulting in injuries to any person, including death, and any property damage arising out of this LGIA.

Article 19. Assignment

19.1 Assignment. This LGIA may be assigned by either Party only with the written consent of the other; provided that either Party may assign this LGIA without the consent of the other Party to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this LGIA; and provided further that Interconnection Customer shall have the right to assign this LGIA, without the consent of Transmission Provider, for collateral security purposes to aid in providing financing for the Large Generating Facility, provided that Interconnection Customer will promptly notify Transmission Provider of any such assignment. Any financing arrangement entered into by Interconnection Customer pursuant to this article will provide that prior to or upon the exercise of the secured Party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify Transmission Provider of the date and particulars of any such exercise of assignment right(s), including providing the Transmission Provider with proof that it meets the requirements of Articles 11.5 and 18.3. Any attempted assignment that violates this article is void and ineffective. Any assignment under this LGIA shall not relieve a Party of its obligations, nor

shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

Article 20. Severability

- 20.1 Severability.** If any provision in this LGIA is finally determined to be invalid, void or unenforceable by any court or other Governmental Authority having jurisdiction, such determination shall not invalidate, void or make unenforceable any other provision, agreement or covenant of this LGIA; provided that if Interconnection Customer (or any third party, but only if such third party is not acting at the direction of Transmission Provider) seeks and obtains such a final determination with respect to any provision of the Alternate Option (Article 5.1.2), or the Negotiated Option (Article 5.1.4), then none of these provisions shall thereafter have any force or effect and the Parties' rights and obligations shall be governed solely by the Standard Option (Article 5.1.1).

Article 21. Comparability

- 21.1 Comparability.** The Parties will comply with all applicable comparability and code of conduct laws, rules and regulations, as amended from time to time.

Article 22. Confidentiality

- 22.1 Confidentiality.** Confidential Information shall include, without limitation, all information relating to a Party's technology, research and development, business affairs, and pricing, and any information supplied by either of the Parties to the other prior to the execution of this LGIA.

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Party receiving the information that the

information is confidential.

If requested by either Party, the other Party shall provide in writing, the basis for asserting that the information referred to in this Article 22 warrants confidential treatment, and the requesting Party may disclose such writing to the appropriate Governmental Authority. Each Party shall be responsible for the costs associated with affording confidential treatment to its information.

22.1.1 Term. During the term of this LGIA, and for a period of three (3) years after the expiration or termination of this LGIA, except as otherwise provided in this Article 22, each Party shall hold in confidence and shall not disclose to any person Confidential Information.

22.1.2 Scope. Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a result of a disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (4) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (5) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or Breach of this LGIA; or (6) is required, in accordance with Article 22.1.7 of the LGIA, Order of Disclosure, to be disclosed by any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal

proceeding establishing rights and obligations under this LGIA. Information designated as Confidential Information will no longer be deemed confidential if the Party that designated the information as confidential notifies the other Party that it no longer is confidential.

22.1.3

Release of Confidential Information.

Neither Party shall release or disclose Confidential Information to any other person, except to its Affiliates (limited by the Standards of Conduct requirements), subcontractors, employees, consultants, or to parties who may be or considering providing financing to or equity participation with Interconnection Customer, or to potential purchasers or assignees of Interconnection Customer, on a need-to-know basis in connection with this LGIA, unless such person has first been advised of the confidentiality provisions of this Article 22 and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Article 22.

22.1.4

Rights. Each Party retains all rights, title, and interest in the Confidential Information that each Party discloses to the other Party. The disclosure by each Party to the other Party of Confidential Information shall not be deemed a waiver by either Party or any other person or entity of the right to protect the Confidential Information from public disclosure.

22.1.5

No Warranties. By providing Confidential Information, neither Party makes any warranties or representations as to its

accuracy or completeness. In addition, by supplying Confidential Information, neither Party obligates itself to provide any particular information or Confidential Information to the other Party nor to enter into any further agreements or proceed with any other relationship or joint venture.

22.1.6 Standard of Care. Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to the other Party under this LGIA or its regulatory requirements.

22.1.7 Order of Disclosure. If a court or a Government Authority or entity with the right, power, and apparent authority to do so requests or requires either Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Party with prompt notice of such request(s) or requirement(s) so that the other Party may seek an appropriate protective order or waive compliance with the terms of this LGIA.

Notwithstanding the absence of a protective order or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party will use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

22.1.8 Termination of Agreement. Upon termination of this LGIA for any reason, each Party shall, within ten (10) Calendar Days of receipt of a written request from the other Party, use Reasonable Efforts to destroy, erase, or delete (with such destruction, erasure, and deletion certified in writing to the other Party) or return to the other Party, without retaining copies thereof, any and all written or electronic Confidential Information received from the other Party.

22.1.9 Remedies. The Parties agree that monetary damages would be inadequate to compensate a Party for the other Party's Breach of its obligations under this Article 22. Each Party accordingly agrees that the other Party shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party Breaches or threatens to Breach its obligations under this Article 22, which equitable relief shall be granted without bond or proof of damages, and the receiving Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the Breach of this Article 22, but shall be in addition to all other remedies available at law or in equity. The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for indirect, incidental, or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Article 22.

22.1.10 Disclosure to FERC, its Staff, or a State. Notwithstanding anything in this Article 22 to the contrary, and pursuant to 18 CFR section 1b.20, if FERC or its staff,

during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to this LGIA, the Party shall provide the requested information to FERC or its staff, within the time provided for in the request for information. In providing the information to FERC or its staff, the Party must, consistent with 18 CFR section 388.112, request that the information be treated as confidential and non-public by FERC and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party to this LGIA prior to the release of the Confidential Information to FERC or its staff. The Party shall notify the other Party to the LGIA when it is notified by FERC or its staff that a request to release Confidential Information has been received by FERC, at which time either of the Parties may respond before such information would be made public, pursuant to 18 CFR section 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.

22.1.11 Subject to the exception in Article 22.1.10, any information that a Party claims is competitively sensitive, commercial or financial information under this LGIA ("Confidential Information") shall not be disclosed by the other Party to any person not employed or retained by the other Party, except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of litigation

or dispute; (iii) otherwise permitted by consent of the other Party, such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this LGIA or as a transmission service provider or a Control Area operator including disclosing the Confidential Information to an RTO or ISO or to a regional or national reliability organization. The Party asserting confidentiality shall notify the other Party in writing of the information it claims is confidential. Prior to any disclosures of the other Party's Confidential Information under this subparagraph, or if any third party or Governmental Authority makes any request or demand for any of the information described in this subparagraph, the disclosing Party agrees to promptly notify the other Party in writing and agrees to assert confidentiality and cooperate with the other Party in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

Article 23. Environmental Releases

- 23.1** Each Party shall notify the other Party, first orally and then in writing, of the release of any Hazardous Substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Large Generating Facility or the Interconnection Facilities, each of which may reasonably be expected to affect the other Party. The notifying Party shall: (i) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than twenty-four hours after such Party becomes aware of the occurrence; and (ii) promptly furnish to the other Party copies of any publicly available reports filed with any Governmental Authorities addressing such events.

Article 24. Information Requirements

- 24.1 Information Acquisition.** Transmission Provider and Interconnection Customer shall submit specific information regarding the electrical characteristics of their respective facilities to each other as described below and in accordance with Applicable Reliability Standards.
- 24.2 Information Submission by Transmission Provider.** The initial information submission by Transmission Provider shall occur no later than one hundred eighty (180) Calendar Days prior to Trial Operation and shall include Transmission System information necessary to allow Interconnection Customer to select equipment and meet any system protection and stability requirements, unless otherwise agreed to by the Parties. On a monthly basis Transmission Provider shall provide Interconnection Customer a status report on the construction and installation of Transmission Provider's Interconnection Facilities and Network Upgrades, including, but not limited to, the following information: (1) progress to date; (2) a description of the activities since the last report; (3) a description of the action items for the next period; and (4) the delivery status of equipment ordered.
- 24.3 Updated Information Submission by Interconnection Customer.** The updated information submission by Interconnection Customer, including manufacturer information, shall occur no later than one hundred eighty (180) Calendar Days prior to the Trial Operation. Interconnection Customer shall submit a completed copy of the Large Generating Facility data requirements contained in Appendix 1 to the LGIP. It shall also include any additional information provided to Transmission Provider for the ~~Feasibility~~Cluster Study and Facilities Study. Information in this submission shall be the most current Large Generating Facility design or expected performance data. Information submitted for stability models shall be compatible with Transmission Provider standard models. If there is

no compatible model, Interconnection Customer will work with a consultant mutually agreed to by the Parties to develop and supply a standard model and associated information.

If Interconnection Customer's data is materially different from what was originally provided to Transmission Provider pursuant to the Interconnection Study Agreement between Transmission Provider and Interconnection Customer, then Transmission Provider will conduct appropriate studies to determine the impact on Transmission Provider Transmission System based on the actual data submitted pursuant to this Article 24.3. The Interconnection Customer shall not begin Trial Operation until such studies are completed.

24.4 Information Supplementation. Prior to the Operation Date, the Parties shall supplement their information submissions described above in this Article 24 with any and all "as-built" Large Generating Facility information or "as-tested" performance information that differs from the initial submissions or, alternatively, written confirmation that no such differences exist. The Interconnection Customer shall conduct tests on the Large Generating Facility as required by Good Utility Practice such as an open circuit "step voltage" test on the Large Generating Facility to verify proper operation of the Large Generating Facility's automatic voltage regulator.

Unless otherwise agreed, the test conditions shall include: (1) Large Generating Facility at synchronous speed; (2) automatic voltage regulator on and in voltage control mode; and (3) a five percent change in Large Generating Facility terminal voltage initiated by a change in the voltage regulators reference voltage. Interconnection Customer shall provide validated test recordings showing the responses of Large Generating Facility terminal and field voltages. In the event that direct recordings of these voltages is impractical, recordings of other voltages or currents that mirror the response of the Large Generating Facility's terminal or field voltage are acceptable if information necessary to translate

these alternate quantities to actual Large Generating Facility terminal or field voltages is provided. Large Generating Facility testing shall be conducted and results provided to Transmission Provider for each individual generating unit in a station.

Subsequent to the Operation Date, Interconnection Customer shall provide Transmission Provider any information changes due to equipment replacement, repair, or adjustment. Transmission Provider shall provide Interconnection Customer any information changes due to equipment replacement, repair or adjustment in the directly connected substation or any adjacent Transmission Provider-owned substation that may affect Interconnection Customer's Interconnection Facilities equipment ratings, protection or operating requirements. The Parties shall provide such information no later than thirty (30) Calendar Days after the date of the equipment replacement, repair or adjustment.

Article 25. Information Access and Audit Rights

- 25.1 Information Access.** Each Party (the "disclosing Party") shall make available to the other Party information that is in the possession of the disclosing Party and is necessary in order for the other Party to: (i) verify the costs incurred by the disclosing Party for which the other Party is responsible under this LGIA; and (ii) carry out its obligations and responsibilities under this LGIA. The Parties shall not use such information for purposes other than those set forth in this Article 25.1 and to enforce their rights under this LGIA.
- 25.2 Reporting of Non-Force Majeure Events.** Each Party (the "notifying Party") shall notify the other Party when the notifying Party becomes aware of its inability to comply with the provisions of this LGIA for a reason other than a Force Majeure event. The Parties agree to cooperate with each other and provide necessary information regarding such inability to comply, including the date, duration, reason for the inability to comply, and corrective actions taken or planned to be taken with respect to

such inability to comply. Notwithstanding the foregoing, notification, cooperation or information provided under this article shall not entitle the Party receiving such notification to allege a cause for anticipatory breach of this LGIA.

25.3 Audit Rights. Subject to the requirements of confidentiality under Article 22 of this LGIA, each Party shall have the right, during normal business hours, and upon prior reasonable notice to the other Party, to audit at its own expense the other Party's accounts and records pertaining to either Party's performance or either Party's satisfaction of obligations under this LGIA. Such audit rights shall include audits of the other Party's costs, calculation of invoiced amounts, Transmission Provider's efforts to allocate responsibility for the provision of reactive support to the Transmission System, Transmission Provider's efforts to allocate responsibility for interruption or reduction of generation on the Transmission System, and each Party's actions in an Emergency Condition. Any audit authorized by this article shall be performed at the offices where such accounts and records are maintained and shall be limited to those portions of such accounts and records that relate to each Party's performance and satisfaction of obligations under this LGIA. Each Party shall keep such accounts and records for a period equivalent to the audit rights periods described in Article 25.4.

25.4 Audit Rights Periods.

25.4.1 Audit Rights Period for Construction-Related Accounts and Records. Accounts and records related to the design, engineering, procurement, and construction of Transmission Provider's Interconnection Facilities and Network Upgrades shall be subject to audit for a period of twenty-four months following Transmission Provider's issuance of a final invoice in accordance with Article 12.2.

25.4.2 Audit Rights Period for All Other Accounts

and Records. Accounts and records related to either Party's performance or satisfaction of all obligations under this LGIA other than those described in Article 25.4.1 shall be subject to audit as follows: (i) for an audit relating to cost obligations, the applicable audit rights period shall be twenty-four months after the auditing Party's receipt of an invoice giving rise to such cost obligations; and (ii) for an audit relating to all other obligations, the applicable audit rights period shall be twenty-four months after the event for which the audit is sought.

25.5 Audit Results. If an audit by a Party determines that an overpayment or an underpayment has occurred, a notice of such overpayment or underpayment shall be given to the other Party together with those records from the audit which support such determination.

Article 26. Subcontractors

26.1 General. Nothing in this LGIA shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this LGIA; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this LGIA in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.

26.2 Responsibility of Principal. The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this LGIA. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall Transmission Provider be liable for the actions or inactions of Interconnection Customer or its subcontractors with respect to obligations of Interconnection Customer under Article 5 of this

LGIA. Any applicable obligation imposed by this LGIA upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

- 26.3 No Limitation by Insurance.** The obligations under this Article 26 will not be limited in any way by any limitation of subcontractor's insurance.

Article 27. Disputes

- 27.1 Submission.** In the event either Party has a dispute, or asserts a claim, that arises out of or in connection with this LGIA or its performance, such Party (the "disputing Party") shall provide the other Party with written notice of the dispute or claim ("Notice of Dispute"). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Party. In the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within thirty (30) Calendar Days of the other Party's receipt of the Notice of Dispute, such claim or dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such claim or dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of this LGIA.

- 27.2 External Arbitration Procedures.** Any arbitration initiated under this LGIA shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) Calendar Days of the submission of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. The two arbitrators so chosen shall within twenty (20) Calendar Days select a third arbitrator to chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in

electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("Arbitration Rules") and any applicable FERC regulations or RTO rules; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Article 27, the terms of this Article 27 shall prevail.

27.3 Arbitration Decisions. Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision within ninety (90) Calendar Days of appointment and shall notify the Parties in writing of such decision and the reasons therefore. The arbitrator(s) shall be authorized only to interpret and apply the provisions of this LGIA and shall have no power to modify or change any provision of this Agreement in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed with FERC if it affects jurisdictional rates, terms and conditions of service, Interconnection Facilities, or Network Upgrades.

27.4 Costs. Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three member panel and one half of the cost of the third arbitrator chosen; or (2) one half the cost of the single arbitrator jointly chosen by the Parties.

Article 28. Representations, Warranties, and Covenants

28.1 General. Each Party makes the following representations, warranties and covenants:

28.1.1 Good Standing. Such Party is duly organized, validly existing and in good standing under the laws of the state in which it is organized, formed, or incorporated, as applicable; that it is qualified to do business in the state or states in which the Large Generating Facility, Interconnection Facilities and Network Upgrades owned by such Party, as applicable, are located; and that it has the corporate power and authority to own its properties, to carry on its business as now being conducted and to enter into this LGIA and carry out the transactions contemplated hereby and perform and carry out all covenants and obligations on its part to be performed under and pursuant to this LGIA.

28.1.2 Authority. Such Party has the right, power and authority to enter into this LGIA, to become a Party hereto and to perform its obligations hereunder. This LGIA is a legal, valid and binding obligation of such Party, enforceable against such Party in accordance with its terms, except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws affecting creditors' rights generally and by general equitable principles (regardless of whether enforceability is sought in a proceeding in equity or at law).

28.1.3 No Conflict. The execution, delivery and performance of this LGIA does not violate or conflict with the organizational or formation documents, or bylaws or

operating agreement, of such Party, or any judgment, license, permit, order, material agreement or instrument applicable to or binding upon such Party or any of its assets.

28.1.4 Consent and Approval. Such Party has sought or obtained, or, in accordance with this LGIA will seek or obtain, each consent, approval, authorization, order, or acceptance by any Governmental Authority in connection with the execution, delivery and performance of this LGIA, and it will provide to any Governmental Authority notice of any actions under this LGIA that are required by Applicable Laws and Regulations.

Article 29. Joint Operating Committee

29.1 Joint Operating Committee. Except in the case of ISOs and RTOs, Transmission Provider shall constitute a Joint Operating Committee to coordinate operating and technical considerations of Interconnection Service. At least six (6) months prior to the expected Initial Synchronization Date, Interconnection Customer and Transmission Provider shall each appoint one representative and one alternate to the Joint Operating Committee. Each Interconnection Customer shall notify Transmission Provider of its appointment in writing. Such appointments may be changed at any time by similar notice. The Joint Operating Committee shall meet as necessary, but not less than once each calendar year, to carry out the duties set forth herein. The Joint Operating Committee shall hold a meeting at the request of either Party, at a time and place agreed upon by the representatives. The Joint Operating Committee shall perform all of its duties consistent with the provisions of this LGIA. Each Party shall cooperate in providing to the Joint Operating Committee all information required in the performance of the Joint Operating Committee's duties. All decisions and agreements, if any, made by the Joint Operating Committee, shall be evidenced in writing.

The duties of the Joint Operating Committee shall include the following:

- 29.1.1 Establish data requirements and operating record requirements.
- 29.1.2 Review the requirements, standards, and procedures for data acquisition equipment, protective equipment, and any other equipment or software.
- 29.1.3 Annually review the one (1) year forecast of maintenance and planned outage schedules of Transmission Provider's and Interconnection Customer's facilities at the Point of Interconnection.
- 29.1.4 Coordinate the scheduling of maintenance and planned outages on the Interconnection Facilities, the Large Generating Facility and other facilities that impact the normal operation of the interconnection of the Large Generating Facility to the Transmission System.
- 29.1.5 Ensure that information is being provided by each Party regarding equipment availability.
- 29.1.6 Perform such other duties as may be conferred upon it by mutual agreement of the Parties.

Article 30. Miscellaneous

- 30.1 **Binding Effect.** This LGIA and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.
- 30.2 **Conflicts.** In the event of a conflict between the body of this LGIA and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this LGIA shall prevail and be deemed the final intent of the Parties.

30.3 Rules of Interpretation. This LGIA, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this LGIA, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this LGIA), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any Applicable Laws and Regulations means such Applicable Laws and Regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section or Appendix means such Article of this LGIA or such Appendix to this LGIA, or such Section to the LGIP or such Appendix to the LGIP, as the case may be; (6) "hereunder", "hereof", "herein", "hereto" and words of similar import shall be deemed references to this LGIA as a whole and not to any particular Article or other provision hereof or thereof; (7) "including" (and with correlative meaning "include") means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, "from" means "from and including", "to" means "to but excluding" and "through" means "through and including".

30.4 Entire Agreement. This LGIA, including all Appendices and Schedules attached hereto, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this LGIA. There are no other agreements,

representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under this LGIA.

- 30.5 No Third Party Beneficiaries.** This LGIA is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.
- 30.6 Waiver.** The failure of a Party to this LGIA to insist, on any occasion, upon strict performance of any provision of this LGIA will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party. Any waiver at any time by either Party of its rights with respect to this LGIA shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this LGIA. Termination or Default of this LGIA for any reason by Interconnection Customer shall not constitute a waiver of Interconnection Customer's legal rights to obtain an interconnection from Transmission Provider. Any waiver of this LGIA shall, if requested, be provided in writing.
- 30.7 Headings.** The descriptive headings of the various Articles of this LGIA have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this LGIA.
- 30.8 Multiple Counterparts.** This LGIA may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.
- 30.9 Amendment.** The Parties may by mutual agreement amend this LGIA by a written instrument duly executed by the Parties.

30.10 Modification by the Parties. The Parties may by mutual agreement amend the Appendices to this LGIA by a written instrument duly executed by the Parties. Such amendment shall become effective and a part of this LGIA upon satisfaction of all Applicable Laws and Regulations.

30.11 Reservation of Rights. Transmission Provider shall have the right to make a unilateral filing with FERC to modify this LGIA with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this LGIA pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this LGIA shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.

30.12 No Partnership. This LGIA shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

IN WITNESS WHEREOF, the Parties have executed this LGIA in duplicate originals, each of which shall constitute and be an original effective Agreement between the Parties.

[Insert name of Transmission Provider or Transmission

Owner, if applicable]

By: _____

Title: _____

Date: _____

[Insert name of Interconnection Customer]

By: _____

Title: _____

Date: _____

Appendix A to LGIA

Interconnection Facilities, Network Upgrades, Distribution
Upgrades, and Contingent Facilities

1. Interconnection Facilities:

(a) [insert Interconnection Customer's Interconnection
Facilities]:

(b) [insert Transmission Provider's Interconnection
Facilities]:

2. Network Upgrades:

(a) [insert Stand Alone Network Upgrades]:

(b) [insert Other Network Upgrades]:

3. Distribution Upgrades:

4. Contingent Facilities

Appendix B To LGIA

Milestones

Appendix C To LGIA
Interconnection Details

Appendix D To LGIA

Security Arrangements Details

Infrastructure security of Transmission System equipment and operations and control hardware and software is essential to ensure day-to-day Transmission System reliability and operational security. FERC will expect all Transmission Providers, market participants, and Interconnection Customers interconnected to the Transmission System to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and, eventually, best practice recommendations from the electric reliability authority. All public utilities will be expected to meet basic standards for system infrastructure and operational security, including physical, operational, and cyber-security practices.

Appendix E To LGIA

Commercial Operation Date

This Appendix E is a part of the LGIA between Transmission Provider and Interconnection Customer.

[Date]

[Transmission Provider Address]

Re: _____ Large Generating Facility

Dear _____:

On **[Date]** **[Interconnection Customer]** has completed Trial Operation of Unit No. ____. This letter confirms that **[Interconnection Customer]** commenced Commercial Operation of Unit No. ____ at the Large Generating Facility, effective as of **[Date plus one day]**.

Thank you.

[Signature]

[Interconnection Customer Representative]

Appendix F to LGIA

Addresses for Delivery of Notices and Billings

Notices, Billings and Payments:

Transmission Provider:

US Mail Deliveries: PacifiCorp Transmission Services
Attn: Central Cashiers Office
PO Box 2757
Portland, OR 97208-2757

Other Deliveries: Central Cashiers Office
Attn: PacifiCorp Transmission

Services

825 NE Multnomah Street, Suite 550
Portland OR 97232

Phone Number: [Add Central Cashiers Phone
Number]

Interconnection Customer:

[To be supplied.]

**Alternative Forms of Delivery of Notices (telephone,
facsimile or email):**

Transmission Provider:

Director, Transmission Services	[Add phone number]
Manager, Transmission Scheduling	[Add phone number]
Manager, Interconnection Services	[Add phone number]
Manager, Transmission Services	[Add phone number]
Transmission Business Facsimile	[Add facsimile number]

OASIS Address:

~~<http://www.oasis.pacificorp.com/oasis/ppw/main.html>~~<h
<http://www.oasis.pacificorp.com/oasis/ppw/main.html>>

Interconnection Customer:

[To be supplied.]

Appendix G to LGIA

INTERCONNECTION REQUIREMENTS FOR A WIND GENERATING PLANT

Appendix G sets forth requirements and provisions specific to a wind generating plant. All other requirements of this LGIA continue to apply to wind generating plant interconnections.

A. Technical Standards Applicable to a Wind Generating Plant

i. Low Voltage Ride-Through (LVRT) Capability

A wind generating plant shall be able to remain online during voltage disturbances up to the time periods and associated voltage levels set forth in the standard below. The LVRT standard provides for a transition period standard and a post-transition period standard.

Transition Period LVRT Standard

The transition period standard applies to wind generating plants subject to FERC Order 661 that have either: (i) interconnection agreements signed and filed with the Commission, filed with the Commission in unexecuted form, or filed with the Commission as non-conforming agreements between January 1, 2006 and December 31, 2006, with a scheduled in-service date no later than December 31, 2007, or (ii) wind generating turbines subject to a wind turbine procurement contract executed prior to December 31, 2005, for delivery through 2007.

~~1.~~1. Wind generating plants are required to remain in-service during three-phase faults with normal clearing (which is a time period of approximately 4 ~~=~~ 9 cycles) and single line to ground faults with delayed clearing, and subsequent post-fault voltage recovery to prefault voltage unless clearing the fault effectively disconnects the generator from the system. The clearing time requirement for a three-phase fault will be specific to the wind generating plant substation location, as determined by and documented by the transmission provider. The maximum clearing

time the wind generating plant shall be required to withstand for a three-phase fault shall be 9 cycles at a voltage as low as 0.15 p.u., as measured at the high side of the wind generating plant step-up transformer (i.e. the transformer that steps the voltage up to the transmission interconnection voltage or "GSU"), after which, if the fault remains following the location-specific normal clearing time for three-phase faults, the wind generating plant may disconnect from the transmission system.

- ~~2.~~ 2. This requirement does not apply to faults that would occur between the wind generator terminals and the high side of the GSU or to faults that would result in a voltage lower than 0.15 per unit on the high side of the GSU serving the facility.
- ~~3.~~ 3. Wind generating plants may be tripped after the fault period if this action is intended as part of a special protection system.
- ~~4.~~ 4. Wind generating plants may meet the LVRT requirements of this standard by the performance of the generators or by installing additional equipment (e.g., Static VAR Compensator, etc.) within the wind generating plant or by a combination of generator performance and additional equipment.
- ~~5.~~ 5. Existing individual generator units that are, or have been, interconnected to the network at the same location at the effective date of the Appendix G LVRT Standard are exempt from meeting the Appendix G LVRT Standard for the remaining life of the existing generation equipment. Existing individual generator units that are replaced are required to meet the Appendix G LVRT Standard.

Post-transition Period LVRT Standard

All wind generating plants subject to FERC Order No. 661 and not covered by the transition period described above must meet the following requirements:

- ~~1.~~ 1. Wind generating plants are required to remain in-service during three-phase faults with normal

clearing (which is a time period of approximately 4 ~~—~~ 9 cycles) and single line to ground faults with delayed clearing, and subsequent post-fault voltage recovery to prefault voltage unless clearing the fault effectively disconnects the generator from the system. The clearing time requirement for a three-phase fault will be specific to the wind generating plant substation location, as determined by and documented by the transmission provider. The maximum clearing time the wind generating plant shall be required to withstand for a three-phase fault shall be 9 cycles after which, if the fault remains following the location-specific normal clearing time for three-phase faults, the wind generating plant may disconnect from the transmission system. A wind generating plant shall remain interconnected during such a fault on the transmission system for a voltage level as low as zero volts, as measured at the high voltage side of the wind GSU.

- ~~2.~~ 2. This requirement does not apply to faults that would occur between the wind generator terminals and the high side of the GSU.
- ~~3.~~ 3. Wind generating plants may be tripped after the fault period if this action is intended as part of a special protection system.
- ~~4.~~ 4. Wind generating plants may meet the LVRT requirements of this standard by the performance of the generators or by installing additional equipment (e.g., Static VAR Compensator) within the wind generating plant or by a combination of generator performance and additional equipment.
- ~~5.~~ 5. Existing individual generator units that are, or have been, interconnected to the network at the same location at the effective date of the Appendix G LVRT Standard are exempt from meeting the Appendix G LVRT Standard for the remaining life of the existing generation equipment. Existing individual generator units that are replaced are required to meet the Appendix G LVRT Standard.

ii. Power Factor Design Criteria (Reactive

Power)

The following reactive power requirements apply only to a newly interconnecting wind generating plant that has executed a Facilities Study Agreement as of the effective date of the Final Rule establishing the reactive power requirements for non-synchronous generators in section 9.6.1 of this LGIA (Order No. 827). A wind generating plant to which this provision applies shall maintain a power factor within the range of 0.95 leading to 0.95 lagging, measured at the Point of Interconnection as defined in this LGIA, if the Transmission Provider's System Impact Study shows that such a requirement is necessary to ensure safety or reliability. The power factor range standard can be met by using, for example, power electronics designed to supply this level of reactive capability (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors if agreed to by the Transmission Provider, or a combination of the two. The Interconnection Customer shall not disable power factor equipment while the wind plant is in operation. Wind plants shall also be able to provide sufficient dynamic voltage support in lieu of the power system stabilizer and automatic voltage regulation at the generator excitation system if the System Impact Study shows this to be required for system safety or reliability.

iii. Supervisory Control and Data Acquisition (SCADA) Capability

The wind plant shall provide SCADA capability to transmit data and receive instructions from the Transmission Provider to protect system reliability. The Transmission Provider and the wind plant Interconnection Customer shall determine what SCADA information is essential for the proposed wind plant, taking into account the size of the plant and its characteristics, location, and importance in maintaining generation resource adequacy and transmission system reliability in its area.

Appendix 7 to LGIP

INTERCONNECTION PROCEDURES FOR A

WIND GENERATING PLANT

Appendix 7 sets forth procedures specific to a wind generating plant. All other requirements of this LGIP continue to apply to wind generating plant interconnections.

A. Special Procedures Applicable to Wind Generators

The wind plant Interconnection Customer, in completing the Interconnection Request required by section 3.3 of this LGIP, may provide to the Transmission Provider a set of preliminary electrical design specifications depicting the wind plant as a single equivalent generator. Upon satisfying these and other applicable Interconnection Request conditions, the wind plant may enter the queue and receive the base case data as provided for in this LGIP.

No later than six months after submitting an Interconnection Request completed in this manner, the wind plant Interconnection Customer must submit completed detailed electrical design specifications and other data (including collector system layout data) needed to allow the Transmission Provider to complete the System Impact Study.

APPENDIX 8 TO THE LGIP

TECHNOLOGICAL ADVANCEMENT STUDY AGREEMENT

THIS AGREEMENT is made and entered into this ___ day of _____, 20____ by and between [Customer Name (Project Name, QXXXX)], a [Type of company] organized and existing under the laws of the State of _____, ("Interconnection Customer,") and PacifiCorp a Corporation existing under the laws of the State of Oregon ("Transmission Provider"). Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

RECITALS

WHEREAS, the Interconnection Customer submitted a generation interconnection request dated _____ requesting Interconnection Customer's Large Generating Facility to be connected to Transmission Provider's electrical system;

WHEREAS, Interconnection Customer is proposing to modify its generation interconnection request, as described in the Interconnection Customer's technological advancement request submitted by Interconnection Customer dated _____;

WHEREAS, Transmission Provider has determined that further study is required to conclude whether the technological advancement request is a Permissible Technological Advancement;

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Transmission Provider's FERC-approved Large Generator Interconnection Procedures ("LGIP");
- 2.0 Interconnection Customer elects and Transmission Provider shall cause to be performed a study ("Technological Advancement Study") consistent with Section 39.4.6 of the LGIP.

- 3.0 The scope of the Technological Advancement study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The Technological Advancement Study will be based on the assumptions set forth in Attachment A to this Agreement, the results of the technical information provided by Interconnection Customer, applicable requirements in Transmission Provider's LGIP, and current Policy 138 or Policy 139, as applicable.
- 5.0 Transmission Provider reserves the right to request additional technical information from Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Technological Advancement Study. If Interconnection Customer modifies the technical information provided therein, the time to complete the modification assessment may be extended.
- 6.0 The Technological Advancement study report shall provide the following information:
- Summary of study conclusions;
 - Determination of whether the Interconnection Customer's proposed request a Permissible Technological Advancement; or
 - Determination and explanation of whether the Interconnection Customer's proposed request is a material modification, requiring a new application to be submitted;
- 7.0 Interconnection Customer shall provide a deposit of \$10,000 for the performance of the Technological Advancement Study. Transmission Provider's good faith estimate for the time of completion of the modification assessment is 30 calendar days from execution of this Agreement.

Upon receipt of the Technological Advancement Study, Transmission Provider shall charge and Interconnection Customer shall pay the actual costs of the Technological Advancement Study.

Any difference between the deposit and the actual cost of the study shall be paid by or refunded to Interconnection Customer, as appropriate.

- 8.0 Miscellaneous. The Technological Advancement Study Agreement shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, and that are consistent with regional practices, Applicable Laws and Regulations, and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of the LGIP and the LGIA.

IN WITNESS THEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

Transmission Provider

By: _____

Title: _____

Date: _____

[Customer Name (Project Name, QXXXX)]

By: _____

Title: _____

Date: _____

Attachment A

**ASSUMPTIONS USED IN CONDUCTING THE
TECHNOLOGICAL ADVANCEMENT STUDY**

The Technological Advancement Study will be based upon the following assumptions:

Designation of changes to the configuration or technical details of the generating facility.

Transmission Provider's good faith estimate for the cost of completion of the Technological Advancement Study is \$10,000. Transmission Provider's actual cost shall include all direct costs plus applicable overheads.

ATTACHMENT O

**ATTACHMENTS TO SMALL GENERATOR INTERCONNECTION
PROCEDURES**

(Refer to Part V of the Tariff)

- APPENDIX 1 Glossary of Terms
- APPENDIX 2 Small Generator Interconnection Request
- APPENDIX 3 Certification Codes and Standards
- APPENDIX 4 Certification of Small Generator Equipment Packages
- APPENDIX 5 Application, Procedures, and Terms and Conditions for Interconnecting a Certified Inverter-Based Small Generating Facility No Larger than 10 kW ("10 kW Inverter Process")
- APPENDIX 6 ~~Feasibility Study Agreement~~ [\[RESERVED\]](#)
- APPENDIX 7 ~~System Impact Study Agreement~~ [\[RESERVED\]](#)
- APPENDIX 8 Facilities Study Agreement
- APPENDIX 9 Small Generator Interconnection Agreement (SGIA)

APPENDIX 1 TO SGIP

Glossary of Terms

10 kW Inverter Process -- The procedure for evaluating an Interconnection Request for a certified inverter-based Small Generating Facility no larger than 10 kW that uses the section 50 screens. The application process uses an all-in-one document that includes a simplified Interconnection Request, simplified procedures, and a brief set of terms and conditions. See SGIP Appendix 5 to Attachment O of the Tariff.

Affected System -- An electric system other than the Transmission Provider's Transmission System that may be affected by the proposed interconnection.

Business Day -- Monday through Friday, excluding Federal Holidays.

[Cluster](#) - shall have the meaning set out in Section 36 of Transmission Provider's Tariff.

[Cluster Request Window](#) - shall have the meaning set out in Section 36 of Transmission Provider's Tariff.

[Cluster Re-Study\(ies\)](#) - shall have the meaning set out in Section 36 of Transmission Provider's Tariff.

[Cluster Re-Study Report](#) - shall have the meaning set out in Section 36 of Transmission Provider's Tariff.

[Cluster Study](#) - shall have the meaning set out in Section 36 of Transmission Provider's Tariff.

[Cluster Study Agreement](#) - shall have the meaning set out in Section 36 of Transmission Provider's Tariff.

[Cluster Study Report](#) - shall have the meaning set out in Section 36 of Transmission Provider's Tariff.

Distribution System -- The Transmission Provider's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher

voltage transmission networks which transport bulk power over longer distances. The voltage levels at which Distribution Systems operate differ among areas.

Distribution Upgrades -- The additions, modifications, and upgrades to the Transmission Provider's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Small Generating Facility and render the transmission service necessary to effect the Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

Fast Track Process -- The procedure for evaluating an Interconnection Request for a certified Small Generating Facility that meets the eligibility requirements of section 50.1 and includes the section 50 screens, customer options meeting, and optional supplemental review.

Good Utility Practice -- Any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

[Informational Interconnection Study\(ies\) - shall have the meaning set out in Section 36 of Transmission Provider's Tariff.](#)

Interconnection Customer -- Any entity, including the Transmission Provider, the Transmission Owner or any of the affiliates or subsidiaries of either, that proposes to interconnect its Small Generating Facility with the Transmission Provider's Transmission System.

Interconnection Facilities -- The Transmission Provider's Interconnection Facilities and the Interconnection

Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Small Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Small Generating Facility to the Transmission Provider's Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades or Network Upgrades.

Interconnection Request -- The Interconnection Customer's request, in accordance with the Tariff, to interconnect a new Small Generating Facility, or to increase the capacity of, or make a Material Modification to the operating characteristics of, an existing Small Generating Facility that is interconnected with the Transmission Provider's Transmission System.

Material Modification -- A modification that has a material impact on the cost or timing of any Interconnection Request with a later queue priority date.

Network Resource -- Any designated generating resource owned, purchased, or leased by a Network Customer under the Network Integration Transmission Service Tariff. Network Resources do not include any resource, or any portion thereof, that is committed for sale to third parties or otherwise cannot be called upon to meet the Network Customer's Network Load on a non-interruptible basis.

Network Resource Interconnection Service -- An Interconnection Service that allows the Interconnection Customer to integrate its Generating Facility with the Transmission Provider's System (1) in a manner comparable to that in which the Transmission Provider integrates its generating facilities to serve native load customers; or (2) in an RTO or ISO with market based congestion management, in the same manner as Network Resources. Network Resource Interconnection Service in and of itself does not convey transmission service.

Network Upgrades -- Additions, modifications, and upgrades to the Transmission Provider's Transmission System required at or beyond the point at which the Small Generating

Facility interconnects with the Transmission Provider's Transmission System to accommodate the interconnection with the Small Generating Facility to the Transmission Provider's Transmission System. Network Upgrades do not include Distribution Upgrades.

Party or Parties -- The Transmission Provider, Transmission Owner, Interconnection Customer or any combination of the above.

Point of Interconnection -- The point where the Interconnection Facilities connect with the Transmission Provider's Transmission System.

Queue Position -- The order of a valid Interconnection Request, relative to all other pending valid Interconnection Requests, that is established based upon the date and time of receipt of the valid Interconnection Request by the Transmission Provider.

Small Generating Facility -- The Interconnection Customer's device for the production and/or storage of later injection of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

Study Process -- The procedure for evaluating an Interconnection Request that includes the section 51 scoping meeting, ~~feasibility study, system impact study~~Cluster Study, and facilities study.

Transition Cluster Study - shall have the meaning set forth in Attachment W to Transmission Provider's Tariff.

Transition Request - shall have the meaning set forth in Attachment W to Transmission Provider's Tariff.

Transmission Owner -- The entity that owns, leases or otherwise possesses an interest in the portion of the Transmission System at the Point of Interconnection and may be a Party to the Small Generator Interconnection Agreement to the extent necessary.

Transmission Provider -- The public utility (or its designated agent) that owns, controls, or operates

transmission or distribution facilities used for the transmission of electricity in interstate commerce and provides transmission service under the Tariff. The term Transmission Provider should be read to include the Transmission Owner when the Transmission Owner is separate from the Transmission Provider.

Transmission System - The facilities owned, controlled or operated by the Transmission Provider or the Transmission Owner that are used to provide transmission service under the Tariff.

Upgrades - The required additions and modifications to the Transmission Provider's Transmission System at or beyond the Point of Interconnection. Upgrades may be Network Upgrades or Distribution Upgrades. Upgrades do not include Interconnection Facilities.

APPENDIX 2 TO SGIP

SMALL GENERATOR INTERCONNECTION REQUEST (Application Form)

Transmission Provider: _____

Designated Contact Person: _____

Address: _____

Telephone Number: _____

Fax: _____

E-Mail Address: _____

An Interconnection Request is considered complete when it provides all applicable and correct information required below. Per SGIP section 49.5, documentation of site control must be submitted with the Interconnection Request.

Preamble and Instructions

An Interconnection Customer who requests a Federal Energy Regulatory Commission jurisdictional interconnection must submit this Interconnection Request by hand delivery, mail, e-mail, or fax to the Transmission Provider.

Processing Fee or Deposit:

If the Interconnection Request is submitted under the Fast Track Process, the non-refundable processing fee is \$500.

If the Interconnection Request is submitted under the Study Process, whether a new submission or an Interconnection Request that did not pass the Fast Track Process, the Interconnection Customer shall submit to the Transmission Provider a deposit not to exceed \$1,000 towards the cost of the ~~feasibility study~~ [Cluster Study](#).

Interconnection Customer Information

Legal Name of the Interconnection Customer (or, if an individual, individual's name)

Name: _____

Contact Person: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Facility Location (if different from above):

Telephone (Day): _____ Telephone (Evening): _____

Fax: _____ E-Mail Address: _____

Alternative Contact Information (if different from the Interconnection Customer)

Contact Name: _____

Title: _____

Address: _____

Telephone (Day): _____ Telephone (Evening): _____

Fax: _____ E-Mail Address: _____

Application is for: _____ New Small Generating Facility
_____ Capacity addition to Existing Small Generating Facility

If capacity addition to existing facility, please describe: _____

Will the Small Generating Facility be used for any of the following?

Net Metering? Yes ___ No ___
To Supply Power to the Interconnection Customer? Yes ___ No ___
To Supply Power to Others? Yes ___ No ___

For installations at locations with existing electric service to which the proposed Small Generating Facility will interconnect, provide:

(Local Electric Service Provider*)

(Existing Account Number*)

[*To be provided by the Interconnection Customer if the local electric service provider is different from the Transmission Provider]

Contact Name: _____

Title: _____

Address: _____

Telephone (Day): _____

Telephone (Evening): _____

Fax: _____

E-Mail Address: _____

Requested Point of Interconnection: _____

Interconnection Customer's Requested In-Service Date:

Small Generating Facility Information

Data apply only to the Small Generating Facility, not the Interconnection Facilities.

Energy Source: ___Solar ___Wind ___Hydro Hydro Type (e.g. Run-of-River): _____

___Diesel ___Natural Gas ___Fuel Oil ___Other (state type)

Prime Mover: ___Fuel Cell ___Recip Engine ___Gas

Turb ___Steam Turb

___Microturbine ___PV ___Other

Type of Generator: ___Synchronous ___Induction ___Inverter

Generator Nameplate Rating: _____kW (Typical)

Generator Nameplate

kVAR: _____

List of adjustable set points for the protective equipment or software:

Note: A completed Power Systems Load Flow data sheet must be supplied with the Interconnection Request.

Small Generating Facility Characteristic Data (for inverter-based machines)

Max design fault contribution current: _____ Instantaneous _____ or RMS? _

Harmonics Characteristics:

Start-up requirements:

Small Generating Facility Characteristic Data (for rotating machines)

RPM Frequency: _____

(*) Neutral Grounding Resistor (If Applicable): _____

Synchronous Generators:

Direct Axis Synchronous Reactance, X_d : _____ P.U.

Direct Axis Transient Reactance, X'_d : _____ P.U.

Direct Axis Subtransient Reactance, X''_d : _____ P.U.

Negative Sequence Reactance, X_2 : _____ P.U.

Zero Sequence Reactance, X_0 : _____ P.U.

KVA Base: _____

Field Volts: _____

Field Amperes: _____

Induction Generators:

Motoring Power (kW): _____

I_2^2t or K (Heating Time Constant): _____

Rotor Resistance, R_r : _____

Stator Resistance, R_s : _____

Stator Reactance, X_s : _____

Rotor Reactance, X_r : _____

Magnetizing Reactance, X_m : _____

Short Circuit Reactance, X_d'' : _____

Exciting Current: _____
Temperature Rise: _____
Frame Size: _____
Design Letter: _____
Reactive Power Required In Vars (No Load): _____
Reactive Power Required In Vars (Full Load): _____
Total Rotating Inertia, H: _____ Per Unit on kVA Base

Note: Please contact the Transmission Provider prior to submitting the Interconnection Request to determine if the specified information above is required.

Excitation and Governor System Data for Synchronous Generators Only

Provide appropriate IEEE model block diagram of excitation system, governor system and power system stabilizer (PSS) in accordance with the regional reliability council criteria. A PSS may be determined to be required by applicable studies. A copy of the manufacturer's block diagram may not be substituted.

Interconnection Facilities Information

Will a transformer be used between the generator and the point of common coupling?
 Yes No

Will the transformer be provided by the Interconnection Customer? Yes No

Transformer Data (If Applicable, for Interconnection Customer-Owned Transformer):

Is the transformer: single phase three phase?
Size: _____ kVA
Transformer Impedance: _____% on _____ kVA Base

If Three Phase:

Transformer Primary: _____ Volts _____ Delta _____ Wye _____ Wye Grounded
Transformer Secondary: _____ Volts _____ Delta _____ Wye _____ Wye Grounded
Transformer Tertiary: _____ Volts _____ Delta _____ Wye _____ Wye Grounded

Transformer Fuse Data (If Applicable, for Interconnection Customer-Owned Fuse):

(Attach copy of fuse manufacturer's Minimum Melt and Total Clearing Time-Current Curves)

Manufacturer: _____ Type: _____ Size: _____ Speed: _____

Interconnecting Circuit Breaker (if applicable):

Manufacturer: _____ Type: _____
Load Rating (Amps): _____ Interrupting Rating (Amps): _____ Trip Speed
(Cycles): _____

Interconnection Protective Relays (If Applicable):

If Microprocessor-Controlled:

List of Functions and Adjustable Setpoints for the protective equipment or software:

Setpoint Function	Minimum
Maximum	
1. <u>1.</u>	
2. <u>2.</u>	
3. <u>3.</u>	
4. <u>4.</u>	
5. <u>5.</u>	
6. <u>6.</u>	

If Discrete Components:

(Enclose Copy of any Proposed Time-Overcurrent Coordination Curves)

Manufacturer: _____ Type: _____ Style/Catalog No.: _____ Proposed
Setting: _____
Manufacturer: _____ Type: _____ Style/Catalog No.: _____ Proposed
Setting: _____
Manufacturer: _____ Type: _____ Style/Catalog No.: _____ Proposed
Setting: _____
Manufacturer: _____ Type: _____ Style/Catalog No.: _____ Proposed
Setting: _____
Manufacturer: _____ Type: _____ Style/Catalog No.: _____ Proposed
Setting: _____

Current Transformer Data (If Applicable):

(Enclose Copy of Manufacturer's Excitation and Ratio Correction Curves)

Manufacturer: _____
Type: _____ Accuracy Class: . Proposed Ratio Connection: _____

Manufacturer: _____
Type: _____ Accuracy Class: . Proposed Ratio Connection: _____

Potential Transformer Data (If Applicable):

Manufacturer: _____
Type: _____ Accuracy Class: . Proposed Ratio Connection: _____

Manufacturer: _____
Type: _____ Accuracy Class: . Proposed Ratio Connection: _____

General Information

Enclose copy of site electrical one-line diagram showing the configuration of all Small Generating Facility equipment, current and potential circuits, and protection and control schemes. This one-line diagram must be signed and stamped by a licensed Professional Engineer if the Small Generating Facility is larger than 50 kW. Is One-Line Diagram Enclosed? ___ Yes ___ No

Enclose copy of any site documentation that indicates the precise physical location of the proposed Small Generating Facility (e.g., USGS topographic map or other diagram or documentation).

Proposed location of protective interface equipment on property (include address if different from the Interconnection Customer's address)

Enclose copy of any site documentation that describes and details the operation of the protection and control schemes. Is Available Documentation Enclosed?
___ Yes ___ No

Enclose copies of schematic drawings for all protection and control circuits, relay current circuits, relay potential circuits, and alarm/monitoring circuits (if applicable).
Are Schematic Drawings Enclosed? ___ Yes ___ No

Applicant Signature

I hereby certify that, to the best of my knowledge, all the information provided in this Interconnection Request is true and correct.

For Interconnection Customer: _____ Date:

APPENDIX 3 TO SGIP

Certification Codes and Standards

IEEE1547 Standard for Interconnecting Distributed Resources with Electric Power Systems (including use of IEEE 1547.1 testing protocols to establish conformity)

UL 1741 Inverters, Converters, and Controllers for Use in Independent Power Systems

IEEE Std 929-2000 IEEE Recommended Practice for Utility Interface of Photovoltaic (PV) Systems

NFPA 70 (2002), National Electrical Code

IEEE Std C37.90.1-1989 (R1994), IEEE Standard Surge Withstand Capability (SWC) Tests for Protective Relays and Relay Systems

IEEE Std C37.90.2 (1995), IEEE Standard Withstand Capability of Relay Systems to Radiated Electromagnetic Interference from Transceivers

IEEE Std C37.108-1989 (R2002), IEEE Guide for the Protection of Network Transformers

IEEE Std C57.12.44-2000, IEEE Standard Requirements for Secondary Network Protectors

IEEE Std C62.41.2-2002, IEEE Recommended Practice on Characterization of Surges in Low Voltage (1000V and Less) AC Power Circuits

IEEE Std C62.45-1992 (R2002), IEEE Recommended Practice on Surge Testing for Equipment Connected to Low-Voltage (1000V and Less) AC Power Circuits

ANSI C84.1-1995 Electric Power Systems and Equipment —
Voltage Ratings (60 Hertz)

IEEE Std 100-2000, IEEE Standard Dictionary of Electrical and Electronic Terms

NEMA MG 1-1998, Motors and Small Resources, Revision 3

IEEE Std 519-1992, IEEE Recommended Practices and
Requirements for Harmonic Control in Electrical Power
Systems

NEMA MG 1-2003 (Rev 2004), Motors and Generators, Revision
1

APPENDIX 4 TO SGIP

Certification of Small Generator Equipment Packages

- 1.0 Small Generating Facility equipment proposed for use separately or packaged with other equipment in an interconnection system shall be considered certified for interconnected operation if (1) it has been tested in accordance with industry standards for continuous utility interactive operation in compliance with the appropriate codes and standards referenced below by any Nationally Recognized Testing Laboratory (NRTL) recognized by the United States Occupational Safety and Health Administration to test and certify interconnection equipment pursuant to the relevant codes and standards listed in SGIP Appendix 3 to Attachment O of the Tariff, (2) it has been labeled and is publicly listed by such NRTL at the time of the interconnection application, and (3) such NRTL makes readily available for verification all test standards and procedures it utilized in performing such equipment certification, and, with consumer approval, the test data itself. The NRTL may make such information available on its website and by encouraging such information to be included in the manufacturer's literature accompanying the equipment.
- 2.0 The Interconnection Customer must verify that the intended use of the equipment falls within the use or uses for which the equipment was tested, labeled, and listed by the NRTL.
- 3.0 Certified equipment shall not require further type-test review, testing, or additional equipment to meet the requirements of this interconnection procedure; however, nothing herein shall preclude the need for an on-site commissioning test by the parties to the interconnection nor follow-up production testing by the NRTL.
- 4.0 If the certified equipment package includes only interface components (switchgear, inverters, or other interface devices), then an Interconnection Customer must show that the generator or other electric source being utilized with the equipment package is

compatible with the equipment package and is consistent with the testing and listing specified for this type of interconnection equipment.

- 5.0 Provided the generator or electric source, when combined with the equipment package, is within the range of capabilities for which it was tested by the NRTL, and does not violate the interface components' labeling and listing performed by the NRTL, no further design review, testing or additional equipment on the customer side of the point of common coupling shall be required to meet the requirements of this interconnection procedure.
- 6.0 An equipment package does not include equipment provided by the utility.
- 7.0 Any equipment package approved and listed in a state by that state's regulatory body for interconnected operation in that state prior to the effective date of these small generator interconnection procedures shall be considered certified under these procedures for use in that state.

APPENDIX 5 TO SGIP

Application, Procedures, and Terms and Conditions for Interconnecting a Certified Inverter-Based Small Generating Facility No Larger than 10 kW ("10 kW Inverter Process")

- 1.0 The Interconnection Customer ("Customer") completes the Interconnection Request ("Application") and submits it to the Transmission Provider ("Company").
- 2.0 The Company acknowledges to the Customer receipt of the Application within three Business Days of receipt.
- 3.0 The Company evaluates the Application for completeness and notifies the Customer within ten Business Days of receipt that the Application is or is not complete and, if not, advises what material is missing.
- 4.0 The Company verifies that the Small Generating Facility can be interconnected safely and reliably using the screens contained in the Fast Track Process in the Small Generator Interconnection Procedures (SGIP). The Company has 15 Business Days to complete this process. Unless the Company determines and demonstrates that the Small Generating Facility cannot be interconnected safely and reliably, the Company approves the Application and returns it to the Customer. Note to Customer: Please check with the Company before submitting the Application if disconnection equipment is required.
- 5.0 After installation, the Customer returns the Certificate of Completion to the Company. Prior to parallel operation, the Company may inspect the Small Generating Facility for compliance with standards which may include a witness test, and may schedule appropriate metering replacement, if necessary.
- 6.0 The Company notifies the Customer in writing that interconnection of the Small Generating Facility is authorized. If the witness test is not satisfactory, the Company has the right to disconnect the Small Generating Facility. The Customer has no right to operate in parallel until a witness test has been

performed, or previously waived on the Application. The Company is obligated to complete this witness test within ten Business Days of the receipt of the Certificate of Completion. If the Company does not inspect within ten Business Days or by mutual agreement of the Parties, the witness test is deemed waived.

- 7.0 Contact Information - The Customer must provide the contact information for the legal applicant (i.e., the Interconnection Customer). If another entity is responsible for interfacing with the Company, that contact information must be provided on the Application.
- 8.0 Ownership Information - Enter the legal names of the owner(s) of the Small Generating Facility. Include the percentage ownership (if any) by any utility or public utility holding company, or by any entity owned by either.
- 9.0 UL1741 Listed - This standard ("Inverters, Converters, and Controllers for Use in Independent Power Systems") addresses the electrical interconnection design of various forms of generating equipment. Many manufacturers submit their equipment to a Nationally Recognized Testing Laboratory (NRTL) that verifies compliance with UL1741. This "listing" is then marked on the equipment and supporting documentation.

Application for Interconnecting a Certified Inverter-Based Small Generating Facility No Larger than 10kW

This Application is considered complete when it provides all applicable and correct information required below. Per SGIP section 49.5, documentation of site control must be submitted with the Interconnection Request. Additional information to evaluate the Application may be required.

Processing Fee

A non-refundable processing fee of \$100 must accompany this Application.

Interconnection Customer

Name:

Contact

Person:

Address:

City: _____ State: _____ Zip: _____

Telephone (Day): _____ (Evening): _____

Fax: _____ E-Mail Address: _____

Contact (if different from Interconnection Customer)

Name:

Address:

City: _____ State: _____ Zip: _____

Telephone (Day): _____ (Evening): _____

Fax: _____ E-Mail Address: _____

Owner of the facility (include % ownership by any electric utility):

Small Generating Facility Information

Location (if different from above):

Electric Service Company:

Account Number:

Inverter Manufacturer: _____

Model _____

Nameplate Rating: _____ (kW) _____ (kVA) _____ (AC Volts)

Single Phase _____ Three Phase _____

System Design Capacity: _____ (kW) _____ (kVA)

Prime Mover: Photovoltaic Reciprocating Engine Fuel Cell

Turbine Other _____

Energy Source: Solar Wind Hydro Diesel Natural Gas

Fuel Oil Other (describe) _____

Is the equipment UL1741 Listed? Yes_ No __

If Yes, attach manufacturer's cut-sheet showing UL1741 listing

Estimated Installation Date: _____ Estimated In-Service Date: _____

The 10 kW Inverter Process is available only for inverter-based Small Generating Facilities no larger than 10 kW that meet the codes, standards, and certification requirements of Appendices 3 and 4 to Attachment O of the Tariff, or the Transmission Provider has reviewed the design or tested the proposed Small Generating Facility and is satisfied that it is safe to operate.

List components of the Small Generating Facility equipment package that are currently certified:

Equipment Type	Certifying Entity
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____

Interconnection Customer Signature

I hereby certify that, to the best of my knowledge, the information provided in this Application is true. I agree to abide by the Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10kW and return the Certificate of Completion when the Small Generating Facility has been installed.

Signed:

Title: _____ Date: _____

Contingent Approval to Interconnect the Small Generating Facility

(For Company use only)

Interconnection of the Small Generating Facility is approved contingent upon the Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10kW and return of the Certificate of Completion.

Company Signature: _____

Title: _____ Date: _____

Application ID number: _____

Company waives inspection/witness test? Yes___ No___

Small Generating Facility Certificate of Completion

Is the Small Generating Facility owner-installed? Yes _____ No _____

Interconnection Customer:

Contact
Person:

Address:

Location of the Small Generating Facility (if different from above):

City: _____ State: _____ Zip Code:

Telephone (Day): _____ (Evening):

Fax: _____ E-Mail Address:

Electrician:

Name:

Address:

City: _____ State: _____ Zip Code:

Telephone (Day): _____ (Evening):

Fax: _____ E-Mail Address:

License number: _____

Date Approval to Install Facility granted by the Company: _____

Application ID number: _____

Inspection:

The Small Generating Facility has been installed and inspected in compliance with the local

building/electrical code of _____

Signed (Local electrical wiring inspector, or attach signed electrical inspection):

Print Name:

Date: _____

As a condition of interconnection, you are required to send/fax a copy of this form along with a copy of the signed electrical permit to (insert Company information below):

Name: _____

Company: _____

Address: _____

City, State ZIP: _____

Fax: _____

Approval to Energize the Small Generating Facility (For Company use only)

Energizing the Small Generating Facility is approved contingent upon the Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10kW

Company Signature: _____

Title: _____ Date: _____

**Terms and Conditions for Interconnecting an Inverter-Based
Small Generating Facility No Larger than 10kW**

1.0 Construction of the Facility

The Interconnection Customer (the "Customer") may proceed to construct (including operational testing not to exceed two hours) the Small Generating Facility when the Transmission Provider (the "Company") approves the Interconnection Request (the "Application") and returns it to the Customer.

2.0 Interconnection and Operation

The Customer may operate Small Generating Facility and interconnect with the Company's electric system once all of the following have occurred:

2.1 Upon completing construction, the Customer will cause the Small Generating Facility to be inspected or otherwise certified by the appropriate local electrical wiring inspector with jurisdiction, and

2.2 The Customer returns the Certificate of Completion to the Company, and

2.3 The Company has either:

2.3.1 Completed its inspection of the Small Generating Facility to ensure that all equipment has been appropriately installed and that all electrical connections have been made in accordance with applicable codes. All inspections must be conducted by the Company, at its own expense, within ten Business Days after receipt of the Certificate of Completion and shall take place at a time agreeable to the Parties. The Company shall provide a written statement that the Small Generating Facility has passed inspection or shall notify the Customer of what steps it must take to pass inspection as soon as practicable after the inspection takes place; or

2.3.2 If the Company does not schedule an inspection of the Small Generating Facility within ten business days after receiving the Certificate of Completion, the witness test is deemed waived (unless the Parties agree otherwise); or

2.3.3 The Company waives the right to inspect the Small Generating Facility.

2.4 The Company has the right to disconnect the Small Generating Facility in the event of improper installation or failure to return the Certificate of Completion.

2.5 Revenue quality metering equipment must be installed and tested in accordance with applicable ANSI standards.

3.0 **Safe Operations and Maintenance**

The Customer shall be fully responsible to operate, maintain, and repair the Small Generating Facility as required to ensure that it complies at all times with the interconnection standards to which it has been certified.

4.0 **Access**

The Company shall have access to the disconnect switch (if the disconnect switch is required) and metering equipment of the Small Generating Facility at all times. The Company shall provide reasonable notice to the Customer when possible prior to using its right of access.

5.0 **Disconnection**

The Company may temporarily disconnect the Small Generating Facility upon the following conditions:

5.1 For scheduled outages upon reasonable notice.

5.2 For unscheduled outages or emergency conditions.

5.3 If the Small Generating Facility does not operate in the manner consistent with these Terms and Conditions.

5.4 The Company shall inform the Customer in advance of any scheduled disconnection, or as is reasonable after an unscheduled disconnection.

6.0 Indemnification

The Parties shall at all times indemnify, defend, and save the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or inactions of its obligations under this agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.

7.0 Insurance

The Parties agree to follow all applicable insurance requirements imposed by the state in which the Point of Interconnection is located. All insurance policies must be maintained with insurers authorized to do business in that state.

8.0 Limitation of Liability

Each party's liability to the other party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either party be liable to the other party for any indirect, incidental, special, consequential, or punitive damages of any kind whatsoever, except as allowed under paragraph 6.0.

9.0 Termination

The agreement to operate in parallel may be terminated under the following conditions:

9.1 By the Customer

By providing written notice to the Company.

9.2 By the Company

If the Small Generating Facility fails to operate for any consecutive 12 month period or the Customer fails to remedy a violation of these Terms and Conditions.

9.3 Permanent Disconnection

In the event this Agreement is terminated, the Company shall have the right to disconnect its facilities or direct the Customer to disconnect its Small Generating Facility.

9.4 Survival Rights

This Agreement shall continue in effect after termination to the extent necessary to allow or require either Party to fulfill rights or obligations that arose under the Agreement.

10.0 Assignment/Transfer of Ownership of the Facility

This Agreement shall survive the transfer of ownership of the Small Generating Facility to a new owner when the new owner agrees in writing to comply with the terms of this Agreement and so notifies the Company.

APPENDIX 6 TO SGIP

~~Feasibility Study Agreement~~

~~THIS AGREEMENT is made and entered into this _____ day of _____~~
~~20__ by and between—~~

~~_____ ,~~
~~a _____ organized and existing under the laws—~~
~~of the State of _____ ,~~
~~("Interconnection Customer,") and _____ , a~~
~~_____ existing under the laws of the State of—~~
~~_____ , ("Transmission Provider").—~~

~~Interconnection Customer and Transmission Provider each may—~~
~~be referred to as a "Party," or collectively as the—~~
~~"Parties."~~

~~RECITALS~~

~~WHEREAS, Interconnection Customer is proposing to develop a—~~
~~Small Generating Facility or generating capacity addition—~~
~~to an existing Small Generating Facility consistent with—~~
~~the Interconnection Request completed by Interconnection—~~
~~Customer on _____ ; and~~

~~WHEREAS, Interconnection Customer desires to interconnect—~~
~~the Small Generating Facility with the Transmission—~~
~~Provider's Transmission System; and~~

~~WHEREAS, Interconnection Customer has requested the—~~
~~Transmission Provider to perform a feasibility study to—~~
~~assess the feasibility of interconnecting the proposed—~~
~~Small Generating Facility with the Transmission Provider's—~~
~~Transmission System, and of any Affected Systems;—~~

~~NOW, THEREFORE, in consideration of and subject to the—~~
~~mutual covenants contained herein the Parties agreed as—~~
~~follows:~~

~~1.0 When used in this Agreement, with initial—~~
~~capitalization, the terms specified shall have the—~~
~~meanings indicated or the meanings specified in the—~~
~~standard Small Generator Interconnection Procedures.~~

~~2.0 The Interconnection Customer elects and the—~~
~~Transmission Provider shall cause to be performed an—~~

~~interconnection feasibility study consistent the standard Small Generator Interconnection Procedures in accordance with the Open Access Transmission Tariff.~~

~~3.0 The scope of the feasibility study shall be subject to the assumptions set forth in Attachment A to this Agreement.~~

~~4.0 The feasibility study shall be based on the technical information provided by the Interconnection Customer in the Interconnection Request, as may be modified as the result of the scoping meeting. The Transmission Provider reserves the right to request additional technical information from the Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the feasibility study and as designated in accordance with the standard Small Generator Interconnection Procedures. If the Interconnection Customer modifies its Interconnection Request, the time to complete the feasibility study may be extended by agreement of the Parties.~~

~~5.0 In performing the study, the Transmission Provider shall rely, to the extent reasonably practicable, on existing studies of recent vintage. The Interconnection Customer shall not be charged for such existing studies; however, the Interconnection Customer shall be responsible for charges associated with any new study or modifications to existing studies that are reasonably necessary to perform the feasibility study.~~

~~6.0 The feasibility study report shall provide the following analyses for the purpose of identifying any potential adverse system impacts that would result from the interconnection of the Small Generating Facility as proposed:~~

~~6.1 Initial identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection;~~

~~6.2 Initial identification of any thermal overload or voltage limit violations resulting from the~~

~~interconnection;~~

~~6.3 Initial review of grounding requirements and electric system protection; and~~

~~6.4 Description and non binding estimated cost of facilities required to interconnect the proposed Small Generating Facility and to address the identified short circuit and power flow issues.~~

~~7.0 The feasibility study shall model the impact of the Small Generating Facility regardless of purpose in order to avoid the further expense and interruption of operation for reexamination of feasibility and impacts if the Interconnection Customer later changes the purpose for which the Small Generating Facility is being installed.~~

~~8.0 The study shall include the feasibility of any interconnection at a proposed project site where there could be multiple potential Points of Interconnection, as requested by the Interconnection Customer and at the Interconnection Customer's cost.~~

~~9.0 A deposit of the lesser of 50 percent of good faith estimated feasibility study costs or earnest money of \$1,000 may be required from the Interconnection Customer.~~

~~10.0 Once the feasibility study is completed, a feasibility study report shall be prepared and transmitted to the Interconnection Customer. Barring unusual circumstances, the feasibility study must be completed and the feasibility study report transmitted within 30 Business Days of the Interconnection Customer's agreement to conduct a feasibility study.~~

~~11.0 Any study fees shall be based on the Transmission Provider's actual costs and will be invoiced to the Interconnection Customer after the study is completed and delivered and will include a summary of professional time.~~

~~12.0 The Interconnection Customer must pay any study costs that exceed the deposit without interest within 30~~

~~calendar days on receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the Transmission Provider shall refund such excess within 30 calendar days of the invoice without interest.~~

~~13.0 Governing Law, Regulatory Authority, and Rules~~

~~The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state of _____ (where the Point of Interconnection is located), without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.~~

~~14.0 Amendment~~

~~The Parties may amend this Agreement by a written instrument duly executed by both Parties.~~

~~15.0 No Third Party Beneficiaries~~

~~This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.~~

~~16.0 Waiver~~

~~16.1 The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.~~

~~16.2 Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any~~

~~other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Transmission Provider. Any waiver of this Agreement shall, if requested, be provided in writing.~~

~~17.0 Multiple Counterparts~~

~~This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.~~

~~18.0 No Partnership~~

~~This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.~~

~~19.0 Severability~~

~~If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.~~

~~20.0 Subcontractors~~

~~Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under~~

~~this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.~~

~~20.1 The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the Transmission Provider be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.~~

~~20.2 The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.~~

~~21.0 Reservation of Rights~~

~~The Transmission Provider shall have the right to make a unilateral filing with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and the Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Agreement under any applicable provision of the Federal Power Act and FERC's rules and regulations; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the~~

~~rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations, except to the extent that the Parties otherwise agree as provided herein.~~

~~IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.~~

~~[Insert name of _____ [Insert name of
Transmission Provider] _____ Interconnection
Customer]~~

Signed _____

Signed _____

Name (Printed): _____ Name
(Printed): _____

Title: _____ Title: _____

[Reserved]

~~Attachment A to
Feasibility Study Agreement~~

~~Assumptions Used in Conducting the Feasibility Study~~

~~The feasibility study will be based upon the information set forth in the Interconnection Request and agreed upon in the scoping meeting held on _____:~~

~~1) Designation of Point of Interconnection and configuration to be studied.~~

~~2) Designation of alternative Points of Interconnection and configuration.~~

~~1) and 2) are to be completed by the Interconnection Customer. Other assumptions (listed below) are to be provided by the Interconnection Customer and the Transmission Provider.~~

APPENDIX 7 TO SGIP

~~System Impact Study Agreement~~

~~THIS AGREEMENT~~ is made and entered into this _____ day of _____ 20__ by and between _____, a _____ organized and existing under the laws of the State of _____, ("Interconnection Customer,") and _____, a _____ existing under the laws of the State of _____, ("Transmission Provider").
~~Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."~~

~~RECITALS~~

~~WHEREAS,~~ the Interconnection Customer is proposing to develop a Small Generating Facility or generating capacity addition to an existing Small Generating Facility consistent with the Interconnection Request completed by the Interconnection Customer on _____; and

~~WHEREAS,~~ the Interconnection Customer desires to interconnect the Small Generating Facility with the Transmission Provider's Transmission System;

~~WHEREAS,~~ the Transmission Provider has completed a feasibility study and provided the results of said study to the Interconnection Customer (This recital to be omitted if the Parties have agreed to forego the feasibility study.); and

~~WHEREAS,~~ the Interconnection Customer has requested the Transmission Provider to perform a system impact study(s) to assess the impact of interconnecting the Small Generating Facility with the Transmission Provider's Transmission System, and of any Affected Systems;

~~NOW, THEREFORE,~~ in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

1.0 ~~When used in this Agreement, with initial capitalization, the terms specified shall have the~~

- ~~meanings indicated or the meanings specified in the standard Small Generator Interconnection Procedures.~~
- ~~2.0 The Interconnection Customer elects and the Transmission Provider shall cause to be performed a system impact study(s) consistent with the standard Small Generator Interconnection Procedures in accordance with the Open Access Transmission Tariff.~~
- ~~3.0 The scope of a system impact study shall be subject to the assumptions set forth in Attachment A to this Agreement.~~
- ~~4.0 A system impact study will be based upon the results of the feasibility study and the technical information provided by Interconnection Customer in the Interconnection Request. The Transmission Provider reserves the right to request additional technical information from the Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the system impact study. If the Interconnection Customer modifies its designated Point of Interconnection, Interconnection Request, or the technical information provided therein is modified, the time to complete the system impact study may be extended.~~
- ~~5.0 A system impact study shall consist of a short circuit analysis, a stability analysis, a power flow analysis, voltage drop and flicker studies, protection and set point coordination studies, and grounding reviews, as necessary. A system impact study shall state the assumptions upon which it is based, state the results of the analyses, and provide the requirement or potential impediments to providing the requested interconnection service, including a preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the interconnection. A system impact study shall provide a list of facilities that are required as a result of the Interconnection Request and non binding good faith estimates of cost responsibility and time to construct.~~
- ~~6.0 A distribution system impact study shall incorporate a~~

~~distribution load flow study, an analysis of equipment interrupting ratings, protection coordination study, voltage drop and flicker studies, protection and set point coordination studies, grounding reviews, and the impact on electric system operation, as necessary.~~

~~7.0 Affected Systems may participate in the preparation of a system impact study, with a division of costs among such entities as they may agree. All Affected Systems shall be afforded an opportunity to review and comment upon a system impact study that covers potential adverse system impacts on their electric systems, and the Transmission Provider has 20 additional Business Days to complete a system impact study requiring review by Affected Systems.~~

~~8.0 If the Transmission Provider uses a queuing procedure for sorting or prioritizing projects and their associated cost responsibilities for any required Network Upgrades, the system impact study shall consider all generating facilities (and with respect to paragraph 8.3 below, any identified Upgrades associated with such higher queued interconnection) that, on the date the system impact study is commenced~~
~~—~~

~~8.1 — Are directly interconnected with the Transmission Provider's electric system; or~~

~~8.2 — Are interconnected with Affected Systems and may have an impact on the proposed interconnection; and~~

~~8.3 — Have a pending higher queued Interconnection Request to interconnect with the Transmission Provider's electric system.~~

~~9.0 A distribution system impact study, if required, shall be completed and the results transmitted to the Interconnection Customer within 30 Business Days after this Agreement is signed by the Parties. A transmission system impact study, if required, shall be completed and the results transmitted to the Interconnection Customer within 45 Business Days after this Agreement is signed by the Parties, or in~~

~~accordance with the Transmission Provider's queuing procedures.~~

~~10.0 A deposit of the equivalent of the good faith-estimated cost of a distribution system impact study and the one half the good faith estimated cost of a transmission system impact study may be required from the Interconnection Customer.~~

~~11.0 Any study fees shall be based on the Transmission Provider's actual costs and will be invoiced to the Interconnection Customer after the study is completed and delivered and will include a summary of professional time.~~

~~12.0 The Interconnection Customer must pay any study costs that exceed the deposit without interest within 30 calendar days on receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the Transmission Provider shall refund such excess within 30 calendar days of the invoice without interest.~~

~~13.0 Governing Law, Regulatory Authority, and Rules~~

~~The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state of _____ (where the Point of Interconnection is located), without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.~~

~~14.0 Amendment~~

~~The Parties may amend this Agreement by a written instrument duly executed by both Parties.~~

~~15.0 No Third Party Beneficiaries~~

~~This Agreement is not intended to and does not create rights, remedies, or benefits of any character~~

~~whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.~~

~~16.0 Waiver~~

~~16.1 The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.~~

~~16.2 Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Transmission Provider. Any waiver of this Agreement shall, if requested, be provided in writing.~~

~~17.0 Multiple Counterparts~~

~~This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.~~

~~18.0 No Partnership~~

~~This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.~~

~~19.0 Severability~~

~~If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.~~

~~20.0 Subcontractors~~

~~Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.~~

~~20.1 The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the Transmission Provider be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.~~

~~20.2 The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.~~

~~21.0 Reservation of Rights~~

~~The Transmission Provider shall have the right to make a unilateral filing with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and the Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Agreement under any applicable provision of the Federal Power Act and FERC's rules and regulations; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations, except to the extent that the Parties otherwise agree as provided herein.~~

~~IN WITNESS THEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.~~

~~[Insert name of Transmission Provider] [Insert name of Interconnection Customer]~~

Signed _____ Signed _____

Name (Printed): _____ Name
(Printed): _____

Title: _____ Title: _____

[Reserved]

~~Attachment A to
System Impact Study Agreement~~

~~Assumptions Used in Conducting the System Impact Study~~

~~The system impact study shall be based upon the results of the feasibility study, subject to any modifications in accordance with the standard Small Generator Interconnection Procedures, and the following assumptions:~~

~~1) Designation of Point of Interconnection and configuration to be studied.~~

~~2) Designation of alternative Points of Interconnection and configuration.~~

~~1) and 2) are to be completed by the Interconnection Customer. Other assumptions (listed below) are to be provided by the Interconnection Customer and the Transmission Provider.~~

APPENDIX 8 TO SGIP

Facilities Study Agreement

THIS AGREEMENT is made and entered into this ____ day of ____
____ 20__ by and between _____
____, a _____ organized and existing under the
laws of the State of _____, ("Interconnection
Customer,") and _____, a _____
_____ existing under the laws of the State of _____
_____, ("Transmission Provider").
Interconnection Customer and Transmission Provider each may
be referred to as a "Party," or collectively as the
"Parties."

RECITALS

WHEREAS, the Interconnection Customer is proposing to
develop a Small Generating Facility or generating capacity
addition to an existing Small Generating Facility
consistent with the Interconnection Request completed by
the Interconnection Customer on _____; and

WHEREAS, the Interconnection Customer desires to
interconnect the Small Generating Facility with the
Transmission Provider's Transmission System;

WHEREAS, the Transmission Provider has completed a ~~system-
impact study~~ Cluster Study and provided the results of said
study to the Interconnection Customer; and

WHEREAS, the Interconnection Customer has requested the
Transmission Provider to perform a facilities study to
specify and estimate the cost of the equipment,
engineering, procurement and construction work needed to
implement the conclusions of the system impact study in
accordance with Good Utility Practice to physically and
electrically connect the Small Generating Facility with the
Transmission Provider's Transmission System.

NOW, THEREFORE, in consideration of and subject to the
mutual covenants contained herein the Parties agreed as
follows:

1.0 When used in this Agreement, with initial

capitalization, the terms specified shall have the meanings indicated or the meanings specified in the standard Small Generator Interconnection Procedures.

- 2.0 The Interconnection Customer elects and the Transmission Provider shall cause a facilities study consistent with the standard Small Generator Interconnection Procedures to be performed in accordance with the Open Access Transmission Tariff.
- 3.0 The scope of the facilities study shall be subject to data provided in Attachment A to this Agreement and Section 51 of Transmission Provider's Tariff.
- 4.0 The facilities study shall specify and estimate the cost of the equipment, engineering, procurement and construction work (including overheads) needed to implement the conclusions of the system impact study(s). The facilities study shall also identify (1) the electrical switching configuration of the equipment, including, without limitation, transformer, switchgear, meters, and other station equipment, (2) the nature and estimated cost of the Transmission Provider's Interconnection Facilities and Upgrades necessary to accomplish the interconnection, and (3) an estimate of the time required to complete the construction and installation of such facilities.
- 5.0 The Transmission Provider may propose to group facilities required for more than one Interconnection Customer in order to minimize facilities costs through economies of scale, but any Interconnection Customer may require the installation of facilities required for its own Small Generating Facility if it is willing to pay the costs of those facilities.
- 6.0 A deposit of the good faith estimated facilities study costs may be required from the Interconnection Customer.
- 7.0 In cases where Upgrades are required, the facilities study must be completed within 45 Business Days of the receipt of this Agreement. In cases where no Upgrades are necessary, and the required facilities are limited to Interconnection Facilities, the facilities study

- must be completed within 30 Business Days.
- 8.0 Once the facilities study is completed, a draft facilities study report shall be prepared and transmitted to the Interconnection Customer. Barring unusual circumstances, the facilities study must be completed and the draft facilities study report transmitted within 30 Business Days of the Interconnection Customer's agreement to conduct a facilities study.
 - 9.0 Interconnection Customer may, within 30 Calendar Days after receipt of the draft report, provide written comments to Transmission Provider, which Transmission Provider shall include in the final report. Transmission Provider shall issue the final Interconnection Facilities Study report within 15 Business Days of receiving Interconnection Customer's comments or promptly upon receiving Interconnection Customer's statement that it will not provide comments. Transmission Provider may reasonably extend such fifteen-day period upon notice to Interconnection Customer if Interconnection Customer's comments require Transmission Provider to perform additional analyses or make other significant modifications prior to the issuance of the final Interconnection Facilities Report. Upon request, Transmission Provider shall provide Interconnection Customer supporting documentation, workpapers, and databases or data developed in the preparation of the Interconnection Facilities Study, subject to confidentiality arrangements consistent with Section 4.5 of the standard Small Generator Interconnection Procedures.
 - 10.0 Within ten Business Days of providing a draft Interconnection Facilities Study report to Interconnection Customer, Transmission Provider and Interconnection Customer shall meet to discuss the results of the Interconnection Facilities Study.
 - 11.0 Any study fees shall be based on the Transmission Provider's actual costs and will be invoiced to the Interconnection Customer after the study is completed and delivered and will include a summary of professional time.

12.0 The Interconnection Customer must pay any study costs that exceed the deposit without interest within 30 calendar days on receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the Transmission Provider shall refund such excess within 30 calendar days of the invoice without interest.

13.0 Governing Law, Regulatory Authority, and Rules

The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state of _____ (where the Point of Interconnection is located), without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

14.0 Amendment

The Parties may amend this Agreement by a written instrument duly executed by both Parties.

15.0 No Third-Party Beneficiaries

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

16.0 Waiver

16.1 The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

16.2 Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Transmission Provider. Any waiver of this Agreement shall, if requested, be provided in writing.

17.0 Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

18.0 No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

19.0 Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

20.0 Subcontractors

Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under

this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.

20.1 The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the Transmission Provider be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

20.2 The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

21.0 Reservation of Rights

The Transmission Provider shall have the right to make a unilateral filing with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and the Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Agreement under any applicable provision of the Federal Power Act and FERC's rules and regulations; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or

206 of the Federal Power Act and FERC's rules and regulations, except to the extent that the Parties otherwise agree as provided herein.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**[Insert name of
Transmission Provider]**

**[Insert name of
Interconnection
Customer]**

Signed _____

Signed _____

Name (Printed): _____
(Printed): _____

Name

Title: _____

Title: _____

**Attachment A to
Facilities Study Agreement**

**Data to Be Provided by the Interconnection Customer
with the Facilities Study Agreement**

Provide location plan and simplified one-line diagram of the plant and station facilities. For staged projects, please indicate future generation, transmission circuits, etc.

On the one-line diagram, indicate the generation capacity attached at each metering location. (Maximum load on CT/PT)

On the one-line diagram, indicate the location of auxiliary power. (Minimum load on CT/PT) Amps

One set of metering is required for each generation connection to the new ring bus or existing Transmission Provider station. Number of generation connections:

Will an alternate source of auxiliary power be available during CT/PT maintenance?

Yes _____ No _____

Will a transfer bus on the generation side of the metering require that each meter set be designed for the total plant generation? Yes _____ No _____

(Please indicate on the one-line diagram).

What type of control system or PLC will be located at the Small Generating Facility?

What protocol does the control system or PLC use?

Please provide a 7.5-minute quadrangle map of the site. Indicate the plant, station, transmission line, and property lines.

Physical dimensions of the proposed interconnection station:

Bus length from generation to interconnection station:

Line length from interconnection station to Transmission Provider's Transmission System.

Tower number observed in the field. (Painted on tower leg)*:

Number of third party easements required for transmission lines*:

* To be completed in coordination with Transmission Provider.

Is the Small Generating Facility located in Transmission Provider's service area?

Yes _____ No _____ If No, please provide name of local provider:

Please provide the following proposed schedule dates:

Begin Construction Date: _____

Generator step-up transformers receive back feed power Date: _____

Generation Testing

Date: _____

Commercial Operation

Date: _____

APPENDIX 9 TO SGIP

SMALL GENERATOR INTERCONNECTION AGREEMENT (SGIA)

(For Generating Facilities No Larger Than 20 MW)

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This Interconnection Agreement ("Agreement") is made and entered into this ___ day of _____, 20__ , by _____ ("Transmission Provider"), and _____ ("Interconnection Customer") each hereinafter sometimes referred to individually as "Party" or both referred to collectively as the "Parties."

Transmission Provider Information

Transmission Provider: _____
Attention: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone: _____ Fax: _____

Interconnection Customer Information

Interconnection Customer: _____
Attention: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone: _____ Fax: _____

Interconnection Customer Application No: _____

In consideration of the mutual covenants set forth herein, the Parties agree as follows:

Article 1. Scope and Limitations of Agreement

~~1.1~~ 1.1 This Agreement shall be used for all Interconnection Requests submitted under the Small Generator Interconnection Procedures (SGIP) except for those submitted under the 10 kW Inverter Process contained in SGIP Appendix 5 to Attachment 0 of the

Tariff.

~~1.2~~1.2 This Agreement governs the terms and conditions under which the Interconnection Customer's Small Generating Facility will interconnect with, and operate in parallel with, the Transmission Provider's Transmission System.

1.3 This Agreement does not constitute an agreement to purchase or deliver the Interconnection Customer's power. The purchase or delivery of power and other services that the Interconnection Customer may require will be covered under separate agreements, if any. The Interconnection Customer will be responsible for separately making all necessary arrangements (including scheduling) for delivery of electricity with the applicable Transmission Provider.

1.4 Nothing in this Agreement is intended to affect any other agreement between the Transmission Provider and the Interconnection Customer.

1.5 Responsibilities of the Parties

1.5.1 The Parties shall perform all obligations of this Agreement in accordance with all Applicable Laws and Regulations, Operating Requirements, and Good Utility Practice.

1.5.2 The Interconnection Customer shall construct, interconnect, operate and maintain its Small Generating Facility and construct, operate, and maintain its Interconnection Facilities in accordance with the applicable manufacturer's recommended maintenance schedule, and in accordance with this Agreement, and with Good Utility Practice.

1.5.3 The Transmission Provider shall construct, operate, and maintain its Transmission System and Interconnection Facilities in accordance with this Agreement, and with Good Utility Practice.

- 1.5.4 The Interconnection Customer agrees to construct its facilities or systems in accordance with applicable specifications that meet or exceed those provided by the National Electrical Safety Code, the American National Standards Institute, IEEE, Underwriter's Laboratory, and Operating Requirements in effect at the time of construction and other applicable national and state codes and standards. The Interconnection Customer agrees to design, install, maintain, and operate its Small Generating Facility so as to reasonably minimize the likelihood of a disturbance adversely affecting or impairing the system or equipment of the Transmission Provider and any Affected Systems.
- 1.5.5 Each Party shall operate, maintain, repair, and inspect, and shall be fully responsible for the facilities that it now or subsequently may own unless otherwise specified in the Attachments to this Agreement. Each Party shall be responsible for the safe installation, maintenance, repair and condition of their respective lines and appurtenances on their respective sides of the point of change of ownership. The Transmission Provider and the Interconnection Customer, as appropriate, shall provide Interconnection Facilities that adequately protect the Transmission Provider's Transmission System, personnel, and other persons from damage and injury. The allocation of responsibility for the design, installation, operation, maintenance and ownership of Interconnection Facilities shall be delineated in the Attachments to this Agreement.
- 1.5.6 The Transmission Provider shall coordinate with all Affected Systems to support the interconnection.
- 1.5.7 The Interconnection Customer shall ensure

"frequency ride through" capability and "voltage ride through" capability of its Small Generating Facility. The Interconnection Customer shall enable these capabilities such that its Small Generating Facility shall not disconnect automatically or instantaneously from the system or equipment of the Transmission Provider and any Affected Systems for a defined under-frequency or over-frequency condition, or an under-voltage or over-voltage condition as tested pursuant to section 2.1 of this agreement. The defined conditions shall be in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other generating facilities in the Balancing Authority Area on a comparable basis. The Small Generating Facility's protective equipment settings shall comply with the Transmission Provider's automatic load-shed program. The Transmission Provider shall review the protective equipment settings to confirm compliance with the automatic load-shed program. The term "ride through" as used herein shall mean the ability of a Small Generating Facility to stay connected to and synchronized with the system or equipment of the Transmission Provider and any Affected Systems during system disturbances within a range of conditions, in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other generating facilities in the Balancing Authority on a comparable basis. The term "frequency ride through" as used herein shall mean the ability of a Small Generating Facility to stay connected to and synchronized with the system or equipment of the Transmission Provider and any Affected Systems during system disturbances within a range of under-frequency and over-frequency conditions, in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other

generating facilities in the Balancing Authority Area on a comparable basis. The term "voltage ride through" as used herein shall mean the ability of a Small Generating Facility to stay connected to and synchronized with the system or equipment of the Transmission Provider and any Affected Systems during system disturbances within a range of under-voltage and over-voltage conditions, in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other generating facilities in the Balancing Authority Area on a comparable basis.

1.6 Parallel Operation Obligations

Once the Small Generating Facility has been authorized to commence parallel operation, the Interconnection Customer shall abide by all rules and procedures pertaining to the parallel operation of the Small Generating Facility in the applicable control area, including, but not limited to; 1) the rules and procedures concerning the operation of generation set forth in the Tariff or by the applicable system operator(s) for the Transmission Provider's Transmission System and; 2) the Operating Requirements set forth in Attachment 5 of this Agreement.

1.7 Metering

The Interconnection Customer shall be responsible for the Transmission Provider's reasonable and necessary cost for the purchase, installation, operation, maintenance, testing, repair, and replacement of metering and data acquisition equipment specified in Attachments 2 and 3 of this Agreement. The Interconnection Customer's metering (and data acquisition, as required) equipment shall conform to applicable industry rules and Operating Requirements.

1.8 Reactive Power and Primary Frequency Response

1.8.1 Power Factor Design Criteria

1.8.1.1 Synchronous Generation

The Interconnection Customer shall design its Small Generating Facility to maintain a composite power delivery at continuous rated power output at the Point of Interconnection at a power factor within the range of 0.95 leading to 0.95 lagging, unless the Transmission Provider has established different requirements that apply to all similarly situated synchronous generators in the control area on a comparable basis.

1.8.1.2 Non-Synchronous Generation

The Interconnection Customer shall design its Small Generating Facility to maintain a composite power delivery at continuous rated power output at the high-side of the generator substation at a power factor within the range of 0.95 leading to 0.95 lagging, unless the Transmission Provider has established a different power factor range that applies to all similarly situated non-synchronous generators in the control area on a comparable basis. This power factor range standard shall be dynamic and can be met using, for example, power electronics designed to supply this level of reactive capability (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors, or a combination of the two. This requirement shall only apply to newly interconnecting non-synchronous generators that have not yet executed a Facilities Study

Agreement as of the effective date of the Final Rule establishing this requirement (Order No. 827).

1.8.2 The Transmission Provider is required to pay the Interconnection Customer for reactive power that the Interconnection Customer provides or absorbs from the Small Generating Facility when the Transmission Provider requests the Interconnection Customer to operate its Small Generating Facility outside the range specified in article 1.8.1. In addition, if the Transmission Provider pays its own or affiliated generators for reactive power service within the specified range, it must also pay the Interconnection Customer.

1.8.3 Payments shall be in accordance with the Interconnection Customer's applicable rate schedule then in effect unless the provision of such service(s) is subject to a regional transmission organization or independent system operator FERC-approved rate schedule. To the extent that no rate schedule is in effect at the time the Interconnection Customer is required to provide or absorb reactive power under this Agreement, the Parties agree to expeditiously file such rate schedule and agree to support any request for waiver of the Commission's prior notice requirement in order to compensate the Interconnection Customer from the time service commenced.

1.8.4 Primary Frequency Response

Interconnection Customer shall ensure the primary frequency response capability of its Small Generating Facility by installing, maintaining, and operating a functioning governor or equivalent controls. The term "functioning governor or equivalent controls" as used herein shall mean the required hardware and/or software that

provides frequency responsive real power control with the ability to sense changes in system frequency and autonomously adjust the Small Generating Facility's real power output in accordance with the droop and deadband parameters and in the direction needed to correct frequency deviations. Interconnection Customer is required to install a governor or equivalent controls with the capability of operating: (1) with a maximum 5 percent droop and ± 0.036 Hz deadband; or (2) in accordance with the relevant droop, deadband, and timely and sustained response settings from an approved NERC Reliability Standard providing for equivalent or more stringent parameters. The droop characteristic shall be: (1) based on the nameplate capacity of the Small Generating Facility, and shall be linear in the range of frequencies between 59 to 61 Hz that are outside of the deadband parameter; or (2) based on an approved NERC Reliability Standard providing for an equivalent or more stringent parameter. The deadband parameter shall be: the range of frequencies above and below nominal (60 Hz) in which the governor or equivalent controls is not expected to adjust the Small Generating Facility's real power output in response to frequency deviations. The deadband shall be implemented: (1) without a step to the droop curve, that is, once the frequency deviation exceeds the deadband parameter, the expected change in the Small Generating Facility's real power output in response to frequency deviations shall start from zero and then increase (for under-frequency deviations) or decrease (for over-frequency deviations) linearly in proportion to the magnitude of the frequency deviation; or (2) in accordance with an approved NERC Reliability Standard providing for an equivalent or more stringent parameter. Interconnection Customer shall notify Transmission Provider that the primary frequency response

capability of the Small Generating Facility has been tested and confirmed during commissioning. Once Interconnection Customer has synchronized the Small Generating Facility with the Transmission System, Interconnection Customer shall operate the Small Generating Facility consistent with the provisions specified in Sections 1.8.4.1 and 1.8.4.2 of this Agreement. The primary frequency response requirements contained herein shall apply to both synchronous and non-synchronous Small Generating Facilities.

1.8.4.1 Governor or Equivalent Controls.

Whenever the Small Generating Facility is operated in parallel with the Transmission System, Interconnection Customer shall operate the Small Generating Facility with its governor or equivalent controls in service and responsive to frequency.

Interconnection Customer shall:

(1) in coordination with Transmission Provider and/or the relevant balancing authority, set the deadband parameter to: (1) a maximum of ± 0.036 Hz and set the droop parameter to a maximum of 5 percent; or (2) implement the relevant droop and deadband settings from an approved NERC Reliability Standard that provides for equivalent or more stringent parameters. Interconnection Customer shall be required to provide the status and settings of the governor or equivalent controls to Transmission Provider and/or the relevant balancing authority upon request. If Interconnection Customer needs to operate the Small Generating Facility with its governor or

equivalent controls not in service, Interconnection Customer shall immediately notify Transmission Provider and the relevant balancing authority, and provide both with the following information: (1) the operating status of the governor or equivalent controls (i.e., whether it is currently out of service or when it will be taken out of service); (2) the reasons for removing the governor or equivalent controls from service; and (3) a reasonable estimate of when the governor or equivalent controls will be returned to service. Interconnection Customer shall make Reasonable Efforts to return its governor or equivalent controls into service as soon as practicable. Interconnection Customer shall make Reasonable Efforts to keep outages of the Small Generating Facility's governor or equivalent controls to a minimum whenever the Small Generating Facility is operated in parallel with the Transmission System.

1.8.4.2 Timely and Sustained Response.

Interconnection Customer shall ensure that the Small Generating Facility's real power response to sustained frequency deviations outside of the deadband setting is automatically provided and shall begin immediately after frequency deviates outside of the deadband, and to the extent the Small Generating Facility has operating capability in the direction needed to correct the frequency

deviation. Interconnection Customer shall not block or otherwise inhibit the ability of the governor or equivalent controls to respond and shall ensure that the response is not inhibited, except under certain operational constraints including, but not limited to, ambient temperature limitations, physical energy limitations, outages of mechanical equipment, or regulatory requirements. The Small Generating Facility shall sustain the real power response at least until system frequency returns to a value within the deadband setting of the governor or equivalent controls. A Commission-approved Reliability Standard with equivalent or more stringent requirements shall supersede the above requirements.

1.8.4.3 Exemptions.

Small Generating Facilities that are regulated by the United States Nuclear Regulatory Commission shall be exempt from Sections 1.8.4, 1.8.4.1, and 1.8.4.2 of this Agreement. Small Generating Facilities that are behind the meter generation that is sized-to-load (i.e., the thermal load and the generation are near-balanced in real-time operation and the generation is primarily controlled to maintain the unique thermal, chemical, or mechanical output necessary for the operating requirements of its host facility) shall be required to install

primary frequency response capability in accordance with the droop and deadband capability requirements specified in Section 1.8.4, but shall be otherwise exempt from the operating requirements in Sections 1.8.4, 1.8.4.1, 1.8.4.2, and 1.8.4.4 of this Agreement.

1.8.4.4 Electric Storage Resources.

Interconnection Customer interconnecting an electric storage resource shall establish an operating range in Attachment 5 of its SGIA that specifies a minimum state of charge and a maximum state of charge between which the electric storage resource will be required to provide primary frequency response consistent with the conditions set forth in Sections 1.8.4, 1.8.4.1, 1.8.4.2 and 1.8.4.3 of this Agreement. Attachment 5 shall specify whether the operating range is static or dynamic, and shall consider: (1) the expected magnitude of frequency deviations in the interconnection; (2) the expected duration that system frequency will remain outside of the deadband parameter in the interconnection; (3) the expected incidence of frequency deviations outside of the deadband parameter in the interconnection; (4) the physical capabilities of the electric storage resource; (5) operational limitations of the electric storage resource due to manufacturer specifications; and (6) any other relevant factors agreed to by Transmission Provider

and Interconnection Customer, and in consultation with the relevant transmission owner or balancing authority as appropriate. If the operating range is dynamic, then Attachment 5 must establish how frequently the operating range will be reevaluated and the factors that may be considered during its reevaluation.

Interconnection Customer's electric storage resource is required to provide timely and sustained primary frequency response consistent with Section 1.8.4.2 of this Agreement when it is online and dispatched to inject electricity to the Transmission System and/or receive electricity from the Transmission System. This excludes circumstances when the electric storage resource is not dispatched to inject electricity to the Transmission System and/or dispatched to receive electricity from the Transmission System. If Interconnection Customer's electric storage resource is charging at the time of a frequency deviation outside of its deadband parameter, it is to increase (for over-frequency deviations) or decrease (for under-frequency deviations) the rate at which it is charging in accordance with its droop parameter. Interconnection Customer's electric storage resource is not required to change from charging to discharging, or vice versa, unless the response necessitated by the droop and deadband settings requires it to do so and it is technically

capable of making such a transition.

- 1.9 Capitalized Terms. Capitalized terms used herein shall have the meanings specified in the Glossary of Terms in Attachment 1 or the body of this Agreement.

Article 2. Inspection, Testing, Authorization, and Right of Access

2.1 Equipment Testing and Inspection

- 2.1.1 The Interconnection Customer shall test and inspect its Small Generating Facility and Interconnection Facilities prior to interconnection. The Interconnection Customer shall notify the Transmission Provider of such activities no fewer than five Business Days (or as may be agreed to by the Parties) prior to such testing and inspection. Testing and inspection shall occur on a Business Day. The Transmission Provider may, at its own expense, send qualified personnel to the Small Generating Facility site to inspect the interconnection and observe the testing. The Interconnection Customer shall provide the Transmission Provider a written test report when such testing and inspection is completed.
- 2.1.2 The Transmission Provider shall provide the Interconnection Customer written acknowledgment that it has received the Interconnection Customer's written test report. Such written acknowledgment shall not be deemed to be or construed as any representation, assurance, guarantee, or warranty by the Transmission Provider of the safety, durability, suitability, or reliability of the Small Generating Facility or any associated control, protective, and safety devices owned or controlled by the Interconnection Customer or the quality of power produced by the Small Generating Facility.

2.2 Authorization Required Prior to Parallel Operation

2.2.1 The Transmission Provider shall use Reasonable Efforts to list applicable parallel operation requirements in Attachment 5 of this Agreement. Additionally, the Transmission Provider shall notify the Interconnection Customer of any changes to these requirements as soon as they are known. The Transmission Provider shall make Reasonable Efforts to cooperate with the Interconnection Customer in meeting requirements necessary for the Interconnection Customer to commence parallel operations by the in-service date.

2.2.2 The Interconnection Customer shall not operate its Small Generating Facility in parallel with the Transmission Provider's Transmission System without prior written authorization of the Transmission Provider. The Transmission Provider will provide such authorization once the Transmission Provider receives notification that the Interconnection Customer has complied with all applicable parallel operation requirements. Such authorization shall not be unreasonably withheld, conditioned, or delayed.

2.3 Right of Access

2.3.1 Upon reasonable notice, the Transmission Provider may send a qualified person to the premises of the Interconnection Customer at or immediately before the time the Small Generating Facility first produces energy to inspect the interconnection, and observe the commissioning of the Small Generating Facility (including any required testing), startup, and operation for a period of up to three Business Days after initial start-up of the unit. In addition, the Interconnection Customer shall notify the

Transmission Provider at least five Business Days prior to conducting any on-site verification testing of the Small Generating Facility.

2.3.2 Following the initial inspection process described above, at reasonable hours, and upon reasonable notice, or at any time without notice in the event of an emergency or hazardous condition, the Transmission Provider shall have access to the Interconnection Customer's premises for any reasonable purpose in connection with the performance of the obligations imposed on it by this Agreement or if necessary to meet its legal obligation to provide service to its customers.

2.3.3 Each Party shall be responsible for its own costs associated with following this article.

Article 3. Effective Date, Term, Termination, and Disconnection

3.1 Effective Date

This Agreement shall become effective upon execution by the Parties subject to acceptance by FERC (if applicable), or if filed unexecuted, upon the date specified by the FERC. The Transmission Provider shall promptly file this Agreement with the FERC upon execution, if required.

3.2 Term of Agreement

This Agreement shall become effective on the Effective Date and shall remain in effect for a period of ten years from the Effective Date or such other longer period as the Interconnection Customer may request and shall be automatically renewed for each successive one-year period thereafter, unless terminated earlier in accordance with article 3.3 of this Agreement.

3.3 Termination

No termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination, including the filing with FERC of a notice of termination of this Agreement (if required), which notice has been accepted for filing by FERC.

- 3.3.1 The Interconnection Customer may terminate this Agreement at any time by giving the Transmission Provider 20 Business Days written notice.
- 3.3.2 Either Party may terminate this Agreement after Default pursuant to article 7.6.
- 3.3.3 Upon termination of this Agreement, the Small Generating Facility will be disconnected from the Transmission Provider's Transmission System. All costs required to effectuate such disconnection shall be borne by the terminating Party, unless such termination resulted from the non-terminating Party's Default of this SGIA or such non-terminating Party otherwise is responsible for these costs under this SGIA.
- 3.3.4 The termination of this Agreement shall not relieve either Party of its liabilities and obligations, owed or continuing at the time of the termination.
- 3.3.5 The provisions of this article shall survive termination or expiration of this Agreement.

3.4 Temporary Disconnection

Temporary disconnection shall continue only for so long as reasonably necessary under Good Utility Practice.

- 3.4.1 Emergency Conditions -- "Emergency Condition" shall mean a condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (2) that, in the case of the Transmission Provider, is

imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to the Transmission System, the Transmission Provider's Interconnection Facilities or the Transmission Systems of others to which the Transmission System is directly connected; or (3) that, in the case of the Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Small Generating Facility or the Interconnection Customer's Interconnection Facilities. Under Emergency Conditions, the Transmission Provider may immediately suspend interconnection service and temporarily disconnect the Small Generating Facility. The Transmission Provider shall notify the Interconnection Customer promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the Interconnection Customer's operation of the Small Generating Facility. The Interconnection Customer shall notify the Transmission Provider promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the Transmission Provider's Transmission System or any Affected Systems. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of both Parties' facilities and operations, its anticipated duration, and the necessary corrective action.

3.4.2 Routine Maintenance, Construction, and Repair

The Transmission Provider may interrupt interconnection service or curtail the output of the Small Generating Facility and temporarily disconnect the Small Generating

Facility from the Transmission Provider's Transmission System when necessary for routine maintenance, construction, and repairs on the Transmission Provider's Transmission System. The Transmission Provider shall provide the Interconnection Customer with five Business Days notice prior to such interruption. The Transmission Provider shall use Reasonable Efforts to coordinate such reduction or temporary disconnection with the Interconnection Customer.

3.4.3 Forced Outages

During any forced outage, the Transmission Provider may suspend interconnection service to effect immediate repairs on the Transmission Provider's Transmission System. The Transmission Provider shall use Reasonable Efforts to provide the Interconnection Customer with prior notice. If prior notice is not given, the Transmission Provider shall, upon request, provide the Interconnection Customer written documentation after the fact explaining the circumstances of the disconnection.

3.4.4 Adverse Operating Effects

The Transmission Provider shall notify the Interconnection Customer as soon as practicable if, based on Good Utility Practice, operation of the Small Generating Facility may cause disruption or deterioration of service to other customers served from the same electric system, or if operating the Small Generating Facility could cause damage to the Transmission Provider's Transmission System or Affected Systems. Supporting documentation used to reach the decision to disconnect shall be provided to the Interconnection Customer upon request. If, after notice, the Interconnection Customer fails to remedy the

adverse operating effect within a reasonable time, the Transmission Provider may disconnect the Small Generating Facility. The Transmission Provider shall provide the Interconnection Customer with five Business Day notice of such disconnection, unless the provisions of article 3.4.1 apply.

3.4.5 Modification of the Small Generating Facility

The Interconnection Customer must receive written authorization from the Transmission Provider before making any change to the Small Generating Facility that may have a material impact on the safety or reliability of the Transmission System. Such authorization shall not be unreasonably withheld. Modifications shall be done in accordance with Good Utility Practice. If the Interconnection Customer makes such modification without the Transmission Provider's prior written authorization, the latter shall have the right to temporarily disconnect the Small Generating Facility.

3.4.6 Reconnection

The Parties shall cooperate with each other to restore the Small Generating Facility, Interconnection Facilities, and the Transmission Provider's Transmission System to their normal operating state as soon as reasonably practicable following a temporary disconnection.

Article 4. Cost Responsibility for Interconnection Facilities and Distribution Upgrades

4.1 Interconnection Facilities

4.1.1 The Interconnection Customer shall pay for the cost of the Interconnection Facilities itemized in Attachment 2 of this Agreement. The Transmission Provider shall provide a

best estimate cost, including overheads, for the purchase and construction of its Interconnection Facilities and provide a detailed itemization of such costs. Costs associated with Interconnection Facilities may be shared with other entities that may benefit from such facilities by agreement of the Interconnection Customer, such other entities, and the Transmission Provider.

- 4.1.2 The Interconnection Customer shall be responsible for its share of all reasonable expenses, including overheads, associated with (1) owning, operating, maintaining, repairing, and replacing its own Interconnection Facilities, and (2) operating, maintaining, repairing, and replacing the Transmission Provider's Interconnection Facilities.

4.2 Distribution Upgrades

The Transmission Provider shall design, procure, construct, install, and own the Distribution Upgrades described in Attachment 6 of this Agreement. If the Transmission Provider and the Interconnection Customer agree, the Interconnection Customer may construct Distribution Upgrades that are located on land owned by the Interconnection Customer. The actual cost of the Distribution Upgrades, including overheads, shall be directly assigned to the Interconnection Customer.

Article 5. Cost Responsibility for Network Upgrades

5.1 Applicability

No portion of this article 5 shall apply unless the interconnection of the Small Generating Facility requires Network Upgrades.

5.2 Network Upgrades

The Transmission Provider or the Transmission Owner shall design, procure, construct, install, and own the Network Upgrades described in Attachment 6 of this Agreement. If

the Transmission Provider and the Interconnection Customer agree, the Interconnection Customer may construct Network Upgrades that are located on land owned by the Interconnection Customer. Unless the Transmission Provider elects to pay for Network Upgrades, the actual cost of the Network Upgrades, including overheads, shall be borne initially by the Interconnection Customer.

5.2.1 Repayment of Amounts Advanced for Network Upgrades

The Interconnection Customer shall be entitled to a cash repayment, equal to the total amount paid to the Transmission Provider and Affected System operator, if any, for Network Upgrades, including any tax gross-up or other tax-related payments associated with the Network Upgrades, and not otherwise refunded to the Interconnection Customer, to be paid to the Interconnection Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, as payments are made under the Transmission Provider's Tariff and Affected System's Tariff for transmission services with respect to the Small Generating Facility. Any repayment shall include interest calculated in accordance with the methodology set forth in FERC's regulations at 18 C.F.R. § 35.19 a(a)(2)(iii) from the date of any payment for Network Upgrades through the date on which the Interconnection Customer receives a repayment of such payment pursuant to this subparagraph. The Interconnection Customer may assign such repayment rights to any person.

5.2.1.1 Notwithstanding the foregoing, the Interconnection Customer, the Transmission Provider, and any applicable Affected System operators may adopt any alternative payment schedule that is mutually agreeable so long as

the Transmission Provider and said Affected System operators take one of the following actions no later than five years from the Commercial Operation Date: (1) return to the Interconnection Customer any amounts advanced for Network Upgrades not previously repaid, or (2) declare in writing that the Transmission Provider or any applicable Affected System operators will continue to provide payments to the Interconnection Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, or develop an alternative schedule that is mutually agreeable and provides for the return of all amounts advanced for Network Upgrades not previously repaid; however, full reimbursement shall not extend beyond twenty (20) years from the commercial operation date.

- 5.2.1.2 If the Small Generating Facility fails to achieve commercial operation, but it or another generating facility is later constructed and requires use of the Network Upgrades, the Transmission Provider and Affected System operator shall at that time reimburse the Interconnection Customer for the amounts advanced for the Network Upgrades. Before any such reimbursement can occur, the Interconnection Customer, or the entity that ultimately constructs the generating facility, if different, is responsible for identifying the entity to which reimbursement must be made.

5.3 Special Provisions for Affected Systems

Unless the Transmission Provider provides, under this Agreement, for the repayment of amounts advanced to any applicable Affected System operators for Network Upgrades, the Interconnection Customer and Affected System operator shall enter into an agreement that provides for such repayment. The agreement shall specify the terms governing payments to be made by the Interconnection Customer to Affected System operator as well as the repayment by Affected System operator.

5.4 Rights Under Other Agreements

Notwithstanding any other provision of this Agreement, nothing herein shall be construed as relinquishing or foreclosing any rights, including but not limited to firm transmission rights, capacity rights, transmission congestion rights, or transmission credits, that the Interconnection Customer shall be entitled to, now or in the future, under any other agreement or tariff as a result of, or otherwise associated with, the transmission capacity, if any, created by the Network Upgrades, including the right to obtain cash reimbursements or transmission credits for transmission service that is not associated with the Small Generating Facility.

Article 6. Billing, Payment, Milestones, and Financial Security

6.1 Billing and Payment Procedures and Final Accounting

6.1.1 The Transmission Provider shall bill the Interconnection Customer for the design, engineering, construction, and procurement costs of Interconnection Facilities and Upgrades contemplated by this Agreement on a monthly basis, or as otherwise agreed by the Parties. The Interconnection Customer shall pay each bill within 30 calendar days of receipt, or as otherwise agreed to by the Parties.

6.1.2 Within three months of completing the

construction and installation of the Transmission Provider's Interconnection Facilities and/or Upgrades described in the Attachments to this Agreement, the Transmission Provider shall provide the Interconnection Customer with a final accounting report of any difference between (1) the Interconnection Customer's cost responsibility for the actual cost of such facilities or Upgrades, and (2) the Interconnection Customer's previous aggregate payments to the Transmission Provider for such facilities or Upgrades. If the Interconnection Customer's cost responsibility exceeds its previous aggregate payments, the Transmission Provider shall invoice the Interconnection Customer for the amount due and the Interconnection Customer shall make payment to the Transmission Provider within 30 calendar days. If the Interconnection Customer's previous aggregate payments exceed its cost responsibility under this Agreement, the Transmission Provider shall refund to the Interconnection Customer an amount equal to the difference within 30 calendar days of the final accounting report.

6.2 Milestones

The Parties shall agree on milestones for which each Party is responsible and list them in Attachment 4 of this Agreement. A Party's obligations under this provision may be extended by agreement. If a Party anticipates that it will be unable to meet a milestone for any reason other than a Force Majeure Event, it shall immediately notify the other Party of the reason(s) for not meeting the milestone and (1) propose the earliest reasonable alternate date by which it can attain this and future milestones, and (2) requesting appropriate amendments to Attachment 4. The Party affected by the failure to meet a milestone shall not unreasonably withhold agreement to such an amendment unless it will suffer significant uncompensated economic or operational harm from the delay, (2) attainment of the same

milestone has previously been delayed, or (3) it has reason to believe that the delay in meeting the milestone is intentional or unwarranted notwithstanding the circumstances explained by the Party proposing the amendment.

6.3 Financial Security Arrangements

At least 20 Business Days prior to the commencement of the design, procurement, installation, or construction of a discrete portion of the Transmission Provider's Interconnection Facilities and Upgrades, the Interconnection Customer shall provide the Transmission Provider, at the Interconnection Customer's option, a guarantee, a surety bond, letter of credit or other form of security that is reasonably acceptable to the Transmission Provider and is consistent with the Uniform Commercial Code of the jurisdiction where the Point of Interconnection is located. Such security for payment shall be in an amount sufficient to cover the costs for constructing, designing, procuring, and installing the applicable portion of the Transmission Provider's Interconnection Facilities and Upgrades and shall be reduced on a dollar-for-dollar basis for payments made to the Transmission Provider under this Agreement during its term. In addition:

6.3.1 The guarantee must be made by an entity that meets the creditworthiness requirements of the Transmission Provider, and contain terms and conditions that guarantee payment of any amount that may be due from the Interconnection Customer, up to an agreed-to maximum amount.

6.3.2 The letter of credit or surety bond must be issued by a financial institution or insurer reasonably acceptable to the Transmission Provider and must specify a reasonable expiration date.

Article 7. Assignment, Liability, Indemnity, Force Majeure, Consequential Damages, and Default

7.1 Assignment

This Agreement may be assigned by either Party upon 15 Business Days prior written notice and opportunity to object by the other Party; provided that:

- 7.1.1 Either Party may assign this Agreement without the consent of the other Party to any affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement, provided that the Interconnection Customer promptly notifies the Transmission Provider of any such assignment;
- 7.1.2 The Interconnection Customer shall have the right to assign this Agreement, without the consent of the Transmission Provider, for collateral security purposes to aid in providing financing for the Small Generating Facility, provided that the Interconnection Customer will promptly notify the Transmission Provider of any such assignment.
- 7.1.3 Any attempted assignment that violates this article is void and ineffective. Assignment shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. An assignee is responsible for meeting the same financial, credit, and insurance obligations as the Interconnection Customer. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

7.2 Limitation of Liability

Each Party's liability to the other Party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either Party be liable to the

other Party for any indirect, special, consequential, or punitive damages, except as authorized by this Agreement.

7.3 Indemnity

- 7.3.1 This provision protects each Party from liability incurred to third parties as a result of carrying out the provisions of this Agreement. Liability under this provision is exempt from the general limitations on liability found in article 7.2.
- 7.3.2 The Parties shall at all times indemnify, defend, and hold the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or failure to meet its obligations under this Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.
- 7.3.3 If an indemnified person is entitled to indemnification under this article as a result of a claim by a third party, and the indemnifying Party fails, after notice and reasonable opportunity to proceed under this article, to assume the defense of such claim, such indemnified person may at the expense of the indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.
- 7.3.4 If an indemnifying party is obligated to indemnify and hold any indemnified person harmless under this article, the amount owing to the indemnified person shall be the amount of such indemnified person's actual

loss, net of any insurance or other recovery.

- 7.3.5 Promptly after receipt by an indemnified person of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in this article may apply, the indemnified person shall notify the indemnifying party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying party.

7.4 Consequential Damages

Other than as expressly provided for in this Agreement, neither Party shall be liable under any provision of this Agreement for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to the other Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

7.5 Force Majeure

- 7.5.1 As used in this article, a Force Majeure Event shall mean "any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure Event does not include an act of negligence or

intentional wrongdoing."

7.5.2 If a Force Majeure Event prevents a Party from fulfilling any obligations under this Agreement, the Party affected by the Force Majeure Event (Affected Party) shall promptly notify the other Party, either in writing or via the telephone, of the existence of the Force Majeure Event. The notification must specify in reasonable detail the circumstances of the Force Majeure Event, its expected duration, and the steps that the Affected Party is taking to mitigate the effects of the event on its performance. The Affected Party shall keep the other Party informed on a continuing basis of developments relating to the Force Majeure Event until the event ends. The Affected Party will be entitled to suspend or modify its performance of obligations under this Agreement (other than the obligation to make payments) only to the extent that the effect of the Force Majeure Event cannot be mitigated by the use of Reasonable Efforts. The Affected Party will use Reasonable Efforts to resume its performance as soon as possible.

7.6 Default

7.6.1 No Default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of a Force Majeure Event as defined in this Agreement or the result of an act or omission of the other Party. Upon a Default, the non-defaulting Party shall give written notice of such Default to the defaulting Party. Except as provided in article 7.6.2, the defaulting Party shall have 60 calendar days from receipt of the Default notice within which to cure such Default; provided however, if such Default is not capable of cure within 60 calendar days, the defaulting Party shall commence such cure within 20

calendar days after notice and continuously and diligently complete such cure within six months from receipt of the Default notice; and, if cured within such time, the Default specified in such notice shall cease to exist.

- 7.6.2 If a Default is not cured as provided in this article, or if a Default is not capable of being cured within the period provided for herein, the non-defaulting Party shall have the right to terminate this Agreement by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not that Party terminates this Agreement, to recover from the defaulting Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this article will survive termination of this Agreement.

Article 8. Insurance

8.1 The Interconnection Customer shall, at its own expense, maintain in force general liability insurance without any exclusion for liabilities related to the interconnection undertaken pursuant to this Agreement. The amount of such insurance shall be sufficient to insure against all reasonably foreseeable direct liabilities given the size and nature of the generating equipment being interconnected, the interconnection itself, and the characteristics of the system to which the interconnection is made. The Interconnection Customer shall obtain additional insurance only if necessary as a function of owning and operating a generating facility. Such insurance shall be obtained from an insurance provider authorized to do business in the State where the interconnection is located. Certification that such insurance is in effect shall be provided upon request of the Transmission Provider, except that the Interconnection Customer shall show proof of insurance to the Transmission Provider no later than ten Business Days prior to the anticipated commercial operation date. An Interconnection Customer of

sufficient credit-worthiness may propose to self-insure for such liabilities, and such a proposal shall not be unreasonably rejected.

8.2 The Transmission Provider agrees to maintain general liability insurance or self-insurance consistent with the Transmission Provider's commercial practice. Such insurance or self-insurance shall not exclude coverage for the Transmission Provider's liabilities undertaken pursuant to this Agreement.

8.3 The Parties further agree to notify each other whenever an accident or incident occurs resulting in any injuries or damages that are included within the scope of coverage of such insurance, whether or not such coverage is sought.

Article 9. Confidentiality

9.1 Confidential Information shall mean any confidential and/or proprietary information provided by one Party to the other Party that is clearly marked or otherwise designated "Confidential." For purposes of this Agreement all design, operating specifications, and metering data provided by the Interconnection Customer shall be deemed Confidential Information regardless of whether it is clearly marked or otherwise designated as such.

9.2 Confidential Information does not include information previously in the public domain, required to be publicly submitted or divulged by Governmental Authorities (after notice to the other Party and after exhausting any opportunity to oppose such publication or release), or necessary to be divulged in an action to enforce this Agreement. Each Party receiving Confidential Information shall hold such information in confidence and shall not disclose it to any third party nor to the public without the prior written authorization from the Party providing that information, except to fulfill obligations under this Agreement, or to fulfill legal or regulatory requirements.

9.2.1 Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party as it employs to protect its own Confidential

Information.

9.2.2 Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.

9.3 Notwithstanding anything in this article to the contrary, and pursuant to 18 CFR § 1b.20, if FERC, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to this Agreement, the Party shall provide the requested information to FERC, within the time provided for in the request for information. In providing the information to FERC, the Party may, consistent with 18 CFR § 388.112, request that the information be treated as confidential and non-public by FERC and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party to this Agreement prior to the release of the Confidential Information to FERC. The Party shall notify the other Party to this Agreement when it is notified by FERC that a request to release Confidential Information has been received by FERC, at which time either of the Parties may respond before such information would be made public, pursuant to 18 CFR § 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.

Article 10. Disputes

10.1 The Parties agree to attempt to resolve all disputes arising out of the interconnection process according to the provisions of this article.

10.2 In the event of a dispute, either Party shall provide the other Party with a written Notice of Dispute. Such Notice shall describe in detail the nature of the dispute.

10.3 If the dispute has not been resolved within two Business Days after receipt of the Notice, either Party may

contact FERC's Dispute Resolution Service (DRS) for assistance in resolving the dispute.

10.4 The DRS will assist the Parties in either resolving their dispute or in selecting an appropriate dispute resolution venue (e.g., mediation, settlement judge, early neutral evaluation, or technical expert) to assist the Parties in resolving their dispute. DRS can be reached at 1-877-337-2237 or via the internet at <http://www.ferc.gov/legal/adr.asp><<http://www.ferc.gov/legal/adr.asp>>.

10.5 Each Party agrees to conduct all negotiations in good faith and will be responsible for one-half of any costs paid to neutral third-parties.

10.6 If neither Party elects to seek assistance from the DRS, or if the attempted dispute resolution fails, then either Party may exercise whatever rights and remedies it may have in equity or law consistent with the terms of this Agreement.

Article 11. Taxes

11.1 The Parties agree to follow all applicable tax laws and regulations, consistent with FERC policy and Internal Revenue Service requirements.

11.2 Each Party shall cooperate with the other to maintain the other Party's tax status. Nothing in this Agreement is intended to adversely affect the Transmission Provider's tax exempt status with respect to the issuance of bonds including, but not limited to, local furnishing bonds.

Article 12. Miscellaneous

12.1 Governing Law, Regulatory Authority, and Rules

The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state of _____ (where the Point of Interconnection is located), without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise

contest any laws, orders, or regulations of a Governmental Authority.

12.2 Amendment

The Parties may amend this Agreement by a written instrument duly executed by both Parties, or under article 12.12 of this Agreement.

12.3 No Third-Party Beneficiaries

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

12.4 Waiver

12.4.1 The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

12.4.2 Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Transmission Provider. Any waiver of this Agreement shall, if requested, be provided in writing.

12.5 Entire Agreement

This Agreement, including all Attachments, constitutes the

entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under this Agreement.

12.6 Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

12.7 No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

12.8 Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

12.9 Security Arrangements

Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. FERC expects all Transmission Providers, market

participants, and Interconnection Customers interconnected to electric systems to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and, eventually, best practice recommendations from the electric reliability authority. All public utilities are expected to meet basic standards for system infrastructure and operational security, including physical, operational, and cyber-security practices.

12.10 Environmental Releases

Each Party shall notify the other Party, first orally and then in writing, of the release of any hazardous substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Small Generating Facility or the Interconnection Facilities, each of which may reasonably be expected to affect the other Party. The notifying Party shall (1) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than 24 hours after such Party becomes aware of the occurrence, and (2) promptly furnish to the other Party copies of any publicly available reports filed with any governmental authorities addressing such events.

12.11 Subcontractors

Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.

- 12.11.1 The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the

Transmission Provider be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

- 12.11.2 The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

12.12 Reservation of Rights

The Transmission Provider shall have the right to make a unilateral filing with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and the Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Agreement under any applicable provision of the Federal Power Act and FERC's rules and regulations; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations, except to the extent that the Parties otherwise agree as provided herein.

Article 13. Notices

13.1 General

Unless otherwise provided in this Agreement, any written notice, demand, or request required or authorized in connection with this Agreement ("Notice") shall be deemed properly given if delivered in person, delivered by recognized national carrier service, or sent by first class

mail, postage prepaid, to the person specified below:

If to the Interconnection Customer:

Interconnection Customer: _____
Attention: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone: _____ Fax: _____

If to the Transmission Provider:

Transmission Provider: _____
Attention: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone: _____ Fax: _____

13.2 Billing and Payment

Billings and payments shall be sent to the addresses set out below:

Interconnection Customer: _____
Attention: _____
Address: _____
City: _____ State: _____ Zip: _____

Transmission Provider: _____
Attention: _____
Address: _____
City: _____ State: _____ Zip: _____

13.3 Alternative Forms of Notice

Any notice or request required or permitted to be given by either Party to the other and not required by this Agreement to be given in writing may be so given by telephone, facsimile or e-mail to the telephone numbers and e-mail addresses set out below:

If to the Interconnection Customer:

Interconnection Customer: _____
Attention: _____

Address: _____
City: _____ State: _____ Zip: _____
Phone: _____ Fax: _____

If to the Transmission Provider:

Transmission Provider: _____
Attention: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone: _____ Fax: _____

13.4 Designated Operating Representative

The Parties may also designate operating representatives to conduct the communications which may be necessary or convenient for the administration of this Agreement. This person will also serve as the point of contact with respect to operations and maintenance of the Party's facilities.

Interconnection Customer's Operating Representative:

Interconnection Customer: _____
Attention: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone: _____ Fax: _____

Transmission Provider's Operating Representative:

Transmission Provider: _____
Attention: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone: _____ Fax: _____

13.5 Changes to the Notice Information

Either Party may change this information by giving five Business Days written notice prior to the effective date of the change.

Article 14. Signatures

IN WITNESS WHEREOF, the Parties have caused this Agreement

to be executed by their respective duly authorized representatives.

For the Transmission Provider

Name: _____

Title: _____

Date: _____

For the Interconnection Customer

Name: _____

Title: _____

Date: _____

Glossary of Terms

Affected System -- An electric system other than the Transmission Provider's Transmission System that may be affected by the proposed interconnection.

Applicable Laws and Regulations -- All duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

Business Day -- Monday through Friday, excluding Federal Holidays.

Default -- The failure of a breaching Party to cure its breach under the Small Generator Interconnection Agreement.

Distribution System -- The Transmission Provider's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which Distribution Systems operate differ among areas.

Distribution Upgrades -- The additions, modifications, and upgrades to the Transmission Provider's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Small Generating Facility and render the transmission service necessary to effect the Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

Good Utility Practice -- Any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability,

safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

Governmental Authority -- Any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the Interconnection Customer, the Interconnection Provider, or any Affiliate thereof.

Interconnection Customer -- Any entity, including the Transmission Provider, the Transmission Owner or any of the affiliates or subsidiaries of either, that proposes to interconnect its Small Generating Facility with the Transmission Provider's Transmission System.

Interconnection Facilities -- The Transmission Provider's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Small Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Small Generating Facility to the Transmission Provider's Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades or Network Upgrades.

Interconnection Request -- The Interconnection Customer's request, in accordance with the Tariff, to interconnect a new Small Generating Facility, or to increase the capacity of, or make a Material Modification to the operating characteristics of, an existing Small Generating Facility that is interconnected with the Transmission Provider's Transmission System.

Material Modification -- A modification that has a material impact on the cost or timing of any Interconnection Request with a later queue priority date.

Network Upgrades -- Additions, modifications, and upgrades to the Transmission Provider's Transmission System required at or beyond the point at which the Small Generating Facility interconnects with the Transmission Provider's Transmission System to accommodate the interconnection of the Small Generating Facility with the Transmission Provider's Transmission System. Network Upgrades do not include Distribution Upgrades.

Operating Requirements -- Any operating and technical requirements that may be applicable due to Regional Transmission Organization, Independent System Operator, control area, or the Transmission Provider's requirements, including those set forth in the Small Generator Interconnection Agreement.

Party or Parties -- The Transmission Provider, Transmission Owner, Interconnection Customer or any combination of the above.

Point of Interconnection -- The point where the Interconnection Facilities connect with the Transmission Provider's Transmission System.

Reasonable Efforts -- With respect to an action required to be attempted or taken by a Party under the Small Generator Interconnection Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

Small Generating Facility -- The Interconnection Customer's device for the production and/or storage for later injection of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

Tariff -- The Transmission Provider or Affected System's Tariff through which open access transmission service and Interconnection Service are offered, as filed with the FERC, and as amended or supplemented from time to time, or

any successor tariff.

Transmission Owner - = The entity that owns, leases or otherwise possesses an interest in the portion of the Transmission System at the Point of Interconnection and may be a Party to the Small Generator Interconnection Agreement to the extent necessary.

Transmission Provider - = The public utility (or its designated agent) that owns, controls, or operates transmission or distribution facilities used for the transmission of electricity in interstate commerce and provides transmission service under the Tariff. The term Transmission Provider should be read to include the Transmission Owner when the Transmission Owner is separate from the Transmission Provider.

Transmission System - = The facilities owned, controlled or operated by the Transmission Provider or the Transmission Owner that are used to provide transmission service under the Tariff.

Upgrades - = The required additions and modifications to the Transmission Provider's Transmission System at or beyond the Point of Interconnection. Upgrades may be Network Upgrades or Distribution Upgrades. Upgrades do not include Interconnection Facilities.

Attachment 2 to SGIA

**Description and Costs of the Small Generating Facility,
Interconnection Facilities, and Metering Equipment**

Equipment, including the Small Generating Facility, Interconnection Facilities, and metering equipment shall be itemized and identified as being owned by the Interconnection Customer, the Transmission Provider, or the Transmission Owner. The Transmission Provider will provide a best estimate itemized cost, including overheads, of its Interconnection Facilities and metering equipment, and a best estimate itemized cost of the annual operation and maintenance expenses associated with its Interconnection Facilities and metering equipment.

Attachment 3 to SGIA

One-line Diagram Depicting the Small Generating Facility,
Interconnection Facilities, Metering Equipment, and
Upgrades

Milestones

In-Service Date: _____

Critical milestones and responsibility as agreed to by the Parties:

	Milestone/Date	Responsible Party
(1)	_____	_____
(2)	_____	_____
(3)	_____	_____
(4)	_____	_____
(5)	_____	_____
(6)	_____	_____
(7)	_____	_____
(8)	_____	_____
(9)	_____	_____
(10)	_____	_____

Agreed to by:

For the Transmission Provider _____
Date _____

For the Transmission Owner (If Applicable) _____
Date _____

For the Interconnection Customer _____
Date _____

Attachment 5 to SGIA

**Additional Operating Requirements for the Transmission
Provider's Transmission System and Affected Systems Needed
to Support the Interconnection Customer's Needs**

The Transmission Provider shall also provide requirements that must be met by the Interconnection Customer prior to initiating parallel operation with the Transmission Provider's Transmission System.

Attachment 6 to SGIA

**Transmission Provider's Description of its Upgrades
and Best Estimate of Upgrade Costs**

The Transmission Provider shall describe Upgrades and provide an itemized best estimate of the cost, including overheads, of the Upgrades and annual operation and maintenance expenses associated with such Upgrades. The Transmission Provider shall functionalize Upgrade costs and annual expenses as either transmission or distribution related.

ATTACHMENT W

Process for Transitioning to "First-Ready, First-Served"
Interconnection Queue Procedures

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1. SCOPE AND APPLICATION OF ATTACHMENT W

Section 1.1. Scope of Transition Process

All Small Generating Facility Interconnection Requests and Large Generating Facility Interconnection Requests received and pending by January 31, 2020 (the "Transition Close Date") will be processed under this Attachment W. This Attachment W sets forth the procedures by which Transmission Provider will process, including in a cluster study ("Transition Cluster Study") or cluster re-study ("Transition Cluster Re-Study"), any Interconnection Request from a Small Generating Facility Interconnection Request subject to study under Section 51 of Transmission Provider's OATT or Large Generating Facility Interconnection Request received by the Transition Close Date (collectively, "Transition Requests"). Small Generating Facility Interconnection Requests or Large Generating Facility Interconnection Requests received between the Transition Close Date and the effective date of this Attachment W ("Effective Date") shall be deemed submitted within the first Cluster Request Window following completion of the Transition Cluster Study process in this Attachment W, and shall be processed pursuant to Sections 36 - 48 or Sections 49 - 52 of the OATT, as applicable. Small Generating Facility and Large Generating Facility Interconnection Requests received after the Effective Date shall be processed pursuant to Sections 36 - 48 or Sections 49 - 52 of the OATT, as applicable.

Section 1.2. Transition Cluster Study Eligibility

All Transition Requests shall be subject to the provisions of this Attachment W.

Section 1.2.1. Late-Stage Transition Requests

An Interconnection Customer with a Transition Request that, as of April 1, 2020, is at or beyond the point in the interconnection process when it has been tendered a Facilities Study Agreement but has not executed an LGIA or, as applicable, SGIA, ("Late-Stage Transition

Request”) shall not be required to enter the Transition Cluster process conducted pursuant to Sections 2 - 4 of this Attachment W. Late-Stage Transition Requests may either: (a) continue through the remaining Facilities Study and interconnection agreement execution phases of this Attachment W; or (b) opt in to the Transition Cluster process performed under Sections 2 - 4 of this Attachment W by notifying Transmission Provider in writing by August 15, 2020 and meeting the requirements in Section 2. Late-Stage Transition Requests electing to opt in to the Transition Cluster process shall forfeit and/or terminate as appropriate any previous interconnection study results or interconnection study agreements, or previously tendered but unexecuted LGIA or SGIA. For Late-Stage Transition Requests that elect to continue through the remaining Facilities Study and interconnection agreement execution phases of this Attachment W, i.e., elect not to join the Transition Cluster, the Interconnection Customer must provide: (a) a demonstration of Site Control pursuant to Section 2.1.2 of this Attachment W; and, in the case of a Large Generator Interconnection Request only, (b) a demonstration of a Readiness Milestone option in Sections 2.1.1(b) or 2.1.1(c) of this Attachment W. Each demonstration required by the previous sentence for a Late-Stage Transition Request must be made before Transmission Provider will tender an LGIA for execution, but made in no event later than October 15, 2020. Any Late-Stage Transition Requests that fail to meet the requirements of this Section 1.2.1 shall be deemed withdrawn.

Section 1.3. Relationship to LGIP and SGIP

Except as otherwise provided in, or modified by, this Attachment W, Sections 36 - 48 and, in the case of Small Generating Facilities, Sections 49 - 52 of Transmission Provider’s OATT, shall apply to Transition Requests.

Section 1.4. Defined Terms

Unless otherwise indicated in this Attachment W, capitalized terms used in this Attachment W shall have the definitions set forth in OATT Section 36 and, in the case of Small Generating Facilities, the definitions set forth in OATT Attachment O, Appendix 1.

2. PROCESSING OF TRANSITION REQUESTS

Section 2.1. Transition Cluster Study Eligibility: Readiness Milestones, Site Control, and Additional Study Deposit

To be eligible for inclusion in a Transition Cluster Study, a Transition Request must: (a) satisfy the requirements of this Section 2.1 (except Section 2.1.1) by August 15, 2020, subject to the Interconnection Customer's opportunity to correct identified deficiencies pursuant to Section 2.2; and (b) satisfy all requirements of Section 2.1 (including Section 2.1.1) no later than October 15, 2020 ("the Transition Readiness Deadline").

Notwithstanding Section 38.4.1, Interconnection Customer shall promptly inform Transmission Provider of any material change to Interconnection Customer's demonstration, or continuing demonstration, of Site Control under Section 2.1.2 or satisfaction of a Readiness Milestone Option under Section 2.1.1 that has already been previously demonstrated. Upon Transmission Provider determining separately that Interconnection Customer fails to continue demonstrating Site Control once initially demonstrated, or fails to meet a previously demonstrated Readiness Milestone Option under Section 2.1.1, Transmission Provider shall give Interconnection Customer ten (10) Business Days to demonstrate satisfaction with the applicable requirement to Transmission Provider's satisfaction. Absent such demonstration, Transmission Provider will deem the subject Interconnection Request withdrawn.

Section 2.1.1. Readiness Criteria Applicable to Transition Requests for Large Generating Facilities

By no later than the Transition Readiness Deadline, Interconnection Customer with a Large Generating Facility Transition Request eligible for inclusion in a Transition Cluster Study must submit to the Transmission Provider sufficient evidence of one of the following Readiness Milestone Options totaling the entire capacity of the Generating Facility (or requested Interconnection Service amount if the requested Interconnection Service is less than the Generating Facility Capacity in the case of Large Generating Facility Transition Requests only) that is the subject of the Transition Request:

(a) Executed term sheet (or comparable evidence) related to a contract for sale of (i) the constructed Generating Facility to a load-serving entity or to a commercial, industrial, or other large end-use customer, (ii) the Generating Facility's energy where the term of sale is not less than five (5) years, or (iii) the Generating Facility's ancillary services if the Generating Facility is an electric storage resource where the term of sale is not less than five (5) years;

(b) Executed contract binding upon the parties for sale of (i) the constructed Generating Facility to a load-serving entity or to a commercial, industrial, or other large end-use customer, (ii) the Generating Facility's energy where the term of sale is not less than five (5) years, or (iii) the Generating Facility's ancillary services if the Generating Facility is an electric storage resource where the term of sale is not less than five (5) years; or

(c) Reasonable evidence that the Generating Facility has been selected in a Resource

Plan or Resource Solicitation Process by or for a load-serving entity, or is being developed for purposes of a sale to a commercial, industrial, or other large end-use customer.

For the avoidance of doubt, the additional readiness criteria under Section 38.4.1(v) of the OATT do not apply to Transition Requests under this Attachment W.

Section 2.1.2. Site Control

Interconnection Customers with Transition Requests for Small Generating Facilities shall demonstrate Site Control pursuant to Section 49.5 of the OATT.

Interconnection Customers with Transition Requests for Large Generating Facilities shall either:

(a) post a deposit of \$10,000, or

(b) demonstrate Site Control as defined in Section 36 of the OATT. Specifications for acceptable site size for the purposes of demonstrating Site Control are posted on Transmission Provider's OASIS website.

Interconnection Customer may propose alternative specifications for site size to those posted on OASIS for Transmission Provider approval. In the event Transmission Provider and Interconnection Customer cannot reach agreement related to adequacy of site size, Transmission Provider will accept a Professional Engineer (licensed in the state of the Point of Interconnection) stamped site plan drawing that depicts the proposed generation arrangement and specifies the maximum facility output for that arrangement. Deposits posted in accordance with this Section 2.1.2 shall be applied toward any Interconnection Studies for the Transition Request.

Section 2.1.3. No Additional Cluster Study Deposits

Other than deposits provided in accordance with Section 2.1.2 of this Attachment W, Transmission Provider shall not assess any additional study deposits for Transition Requests entering the Transition Cluster Studies. Consistent with Section 3.2, Interconnection Customer with a Transition Request shall be responsible for its allocable share of actual Transition Cluster Study costs, and restudy costs if applicable.

Section 2.1.4. Definitive Point(s) of Interconnection Designation

If not designated already, Interconnection Customer with a Transition Request must designate a definitive Point of Interconnection to be studied in the Transition Cluster study.

Section 2.1.5. Interconnection Service Type Designation

If not designated already, Interconnection Customer with a Transition Request must designate either Energy Resource Interconnection Service or Network Resource Interconnection Service to be studied in the Transition Cluster Study.

Section 2.1.6. Completed and Updated Interconnection Request Form

Interconnection Customer with a Transition Request must provide the applicable Interconnection Request form, such as Appendix 1 to the LGIP, with all information updated as of the submittal.

Section 2.2. Deficiencies Curable by Transition Readiness Deadline

If an Interconnection Request fails to meet the requirements set forth in Sections 2.1.2, 2.1.4, 2.1.5 or 2.1.6 by August 15, 2020, Transmission Provider

shall notify the Interconnection Customer within fifteen (15) Business Days of such failure. Interconnection Customer shall provide Transmission Provider the additional requested information needed to satisfy the requirements of Section 2.1 by no later than the Transition Readiness Deadline. Transition Requests that do not meet the requirements in Section 2.1 of this Attachment W by the Transition Readiness Deadline shall be deemed withdrawn.

3. TRANSITION REQUEST CLUSTER STUDIES

Section 3.1. Transition Cluster Preparation

Within five (5) Business Days following the Transition Readiness Deadline, Transmission Provider shall post on its OASIS site a list of all Transition Requests to be included in the Transition Cluster Study.

Within ten (10) Business Days of the Transition Readiness Deadline, Transmission Provider shall hold a scoping meeting, consistent with the process described in Section 38.4.4 of the OATT, with all Transition Requests to be studied in the Transition Cluster.

All Transition Requests that meet the requirements of Section 2.1 of this Attachment W by the Transition Readiness Deadline and that have executed a Cluster Study Agreement in the form of Appendix 3 to the Transmission Provider's LGIP shall be included in that Transition Cluster Study. Any Transition Requests that do not meet the requirements of Section 2 to be eligible to enter the Transition Cluster Study or that are undergoing Dispute Resolution as of the Transition Readiness Deadline shall not be included in the Transition Cluster.

Section 3.2. Transition Request Cluster Study

Agreement

Unless otherwise agreed, by no later than five (5) Business Days following the Transition Readiness Deadline, Transmission Provider shall provide to Interconnection Customer a Cluster Study Agreement in the form of Appendix 3 to Transmission Provider's LGIP. Pursuant to the Cluster Study Agreement, the

Interconnection Customer shall compensate Transmission Provider for the actual costs of the Transition Cluster Study in accordance with the Study Cost Allocation methodology in Section 39.2.2 of the Transmission Provider's OATT, net of any remaining study deposits already provided by the applicable Interconnection Customer prior to the Effective Date. Along with the Cluster Study Agreement, Transmission Provider shall provide to Interconnection Customer a non-binding updated good faith estimate of the cost for completing the Transition Cluster Study.

Section 3.3. Execution of Transition Cluster Study Agreement

Interconnection Customer shall execute and return the Cluster Study Agreement to Transmission Provider no later than fifteen (15) Business Days after the Transition Readiness Deadline. If the Interconnection Customer elects not to execute the Transition Cluster Study Agreement, its Interconnection Request shall be deemed withdrawn.

Section 3.4. Conducting the Transition Cluster Studies

Transmission Provider may conduct separate Transition Cluster Studies for different electrically relevant areas as set forth in this Section 3.4 and its subsections. After all Interconnection Customers in the Transition Cluster that have met the requirements of Section 2.1 of this Attachment W have executed Cluster Study Agreements or the time period for such execution under Section 3.3 has lapsed, the Transmission Provider will commence the Transition Cluster Studies and perform such Transition Cluster Studies pursuant to the procedures in Sections 42.4 and 42.5 of the OATT.

Section 3.4.1. Use of Cluster Areas

Transmission Provider may segment and perform the Transition Cluster Studies according to geographically and electrically relevant areas on the Transmission Provider's Transmission System

("Cluster Area") in the manner described in Section 42.4 of the OATT.

Section 3.4.2. Scope of Transition Request Cluster Study

The Transition Cluster Study shall have the same scope as the scope of the Cluster System Impact Study, as set forth in Section 42.3 of the Transmission Provider's OATT.

Transmission Provider shall use Reasonable Efforts to complete the Transition Cluster Study no later than one hundred-fifty (150) Calendar Days after the Transition Readiness Deadline.

Section 3.5. Allocation of Transmission Provider's Interconnection Facilities and Network Upgrade Costs Within Transition Cluster Studies

Except as may be modified in Section 3.7 in this Attachment W, for Transmission Provider's Interconnection Facilities and Network Upgrades identified in Transition Cluster Study, Transmission Provider shall calculate the share of costs for each Interconnection Customer within the Transition Cluster in accordance with the allocation methodology in Section 39.2.3 of the Transmission Provider's OATT. Interconnection Customer funding of Network Upgrades are eligible for credits as provided in Article 11.4 of the LGIA.

Section 3.6. Transition Request Cluster Study Report and Meeting with Transmission Provider

Transmission Provider will publish a report following the completion of the Transition Cluster Study ("Transition Cluster Study Report"). Within ten (10) Business Days of furnishing Transition Cluster Study Report or, if a Transition Re-Study was required pursuant to the procedures in Section 42.5(c) a re-study report ("Cluster Re-Study Report"), to Interconnection Customers and posting such report on OASIS, Transmission Provider shall convene an open

meeting to discuss the study results ("Cluster Study Report Meeting" or "Cluster Re-Study Report Meeting"). Transmission Provider shall, upon request, also make itself available to meet with individual Interconnection Customers after the report is provided.

Section 3.7. Gateway South-Dependent Transition Cluster Study

This Section 3.7 shall apply only to the Transition Cluster Study conducted for the eastern Wyoming region that will be dependent in part on the physical limitations of the planned Gateway South transmission line project (the planned 500 kV line from the planned Aeolus substation in southeastern Wyoming into the Clover substation near Mona, Utah) ("Gateway South"). The Gateway South-dependent Transition Cluster Study will be conducted in accordance with Sections 3.4 and Section 4 of this Attachment W and, after taking into account executed interconnection agreements as of the Effective Date of this Attachment W that require Gateway South, will further determine the number of Gateway South-dependent Transition Requests that can receive interconnection service on the Gateway South project and which Transition Requests, if any, will require additional upgrades to be granted interconnection service due to the finite interconnection capacity available on the Gateway South project. If the Gateway South-dependent Transition Cluster Study determines that not all Gateway South-dependent Transition Requests can be accommodated by the Gateway South project, Transmission Provider shall allocate the remaining Gateway South project interconnection capacity according to the preexisting Queue Position of each Gateway South-dependent Transition Request. For Gateway South-dependent Transition Requests that are not allocated Gateway South interconnection capacity, Transmission Provider shall identify the incremental Network Upgrades that are required to grant the requested interconnection service to such remaining Gateway South-dependent Transition Requests. To the extent Transmission Provider does not elect to fund the remaining required Network Upgrades identified in

the Transition Cluster Study report, the funding responsibility for such incremental upgrades beyond Gateway South shall be allocated to each member of the Transition Cluster according to the methodology in Section 3.5 of this Attachment W.

4. RE-STUDIES

If Re-Study of the Transition Cluster Study is required due to a project from Transition Cluster dropping out, or a modification of a higher queued project subject to Section 39.4 of the OATT, Transmission Provider shall notify Interconnection Customer(s) in writing. The Transmission Provider shall make Reasonable Efforts to ensure such Re-Study takes no longer than one hundred fifty (150) Calendar Days from the date of notice. Any cost of Re-Study shall be borne by Interconnection Customer(s) being re-studied in accordance with Section 3 of this Attachment W.

5. INTERCONNECTION FACILITIES STUDIES FOR TRANSITION REQUESTS

Section 5.1. Increased Readiness Showing

Except for Late-Stage Transition Requests electing not to enter a Transition Cluster, which are subject to separate readiness requirements under Section 1.2.1 of this Attachment W, before a Transition Request can proceed to the Facilities Study phase, the applicable Interconnection Customer must make an enhanced readiness showing as set forth in Section 5.2 of this Attachment W.

Section 5.2. Facilities Studies

Transmission Provider will conduct a separate Facilities Study for each Transition Request. Simultaneously with the issuance of the Transition Cluster Study Report, or Transition Cluster Re-Study Report if any, Transmission Provider shall provide to Interconnection Customer an Interconnection Facilities Study Agreement in the form of Appendix 4 to the LGIP, or Appendix 8 to Attachment O of Transmission

Provider's OATT, as applicable. The Interconnection Facilities Study Agreement shall provide that Interconnection Customer shall compensate Transmission Provider for the actual cost of the Interconnection Facilities Study. Within ten (10) Business Days following the Cluster Study Report Meeting or, as applicable Cluster Re-Study Report meeting, Transmission Provider shall provide to Interconnection Customer a non-binding good faith estimate of the cost and timeframe for completing the Interconnection Facilities Study. Interconnection Customer shall execute the Interconnection Facilities Study Agreement and deliver the executed Interconnection Facilities Study Agreement to Transmission Provider within thirty (30) Calendar Days after its receipt, together with:

a. any required technical data;

b. a demonstration of Site Control pursuant to Section 2.1.2(b) of this Attachment W (for Large Generating Facility Transition Requests only);
and

c. demonstration of a Readiness Milestone option in Section 2.1.1(b) or (c) of this Attachment W (for Large Generating Facility Transition Requests only).

Interconnection Customers that fail to timely return an executed Interconnection Facilities Study Agreement or fail to satisfy the requirements of this Section 5.2 and its subparts will be deemed withdrawn. Withdrawal of Interconnection Requests at this stage may trigger a Cluster Re-Study.

Section 5.3. Other Facility Study Procedures

Except as otherwise provided in this Section 5, Interconnection Customer and Transmission Provider shall follow the procedures governing Facility Studies in Section 43 of Transmission Provider's OATT for Large Generating Facilities, or, in the case of Small Generating Facilities, Section 51.5 of Transmission Provider's OATT.

6. LARGE GENERATOR INTERCONNECTION AGREEMENT (LGIA) AND SMALL GENERATOR INTERCONNECTION AGREEMENT (SGIA)

Interconnection Customer and Transmission Provider shall follow the procedures governing Large Generator Interconnection Agreements in Section 46 of Transmission Provider's OATT or, in the case of Small Generating Facilities, Section 51.5.7 of Transmission Provider's OATT.

7. WITHDRAWAL

Interconnection Customer may withdraw its Transition Request at any time by written notice of such withdrawal to Transmission Provider. In addition, if Interconnection Customer fails to adhere to all requirements of this Attachment W or the LGIP (as applicable), except as provided in Section 48.5 (Disputes) of the OATT, Transmission Provider shall deem the Transition Request to be withdrawn and shall provide written notice to Interconnection Customer of the deemed withdrawal and an explanation of the reasons for such deemed withdrawal. Upon receipt of such written notice, Interconnection Customer shall have fifteen (15) Business Days in which to either respond with information or actions that cures the deficiency or to notify Transmission Provider of its intent to pursue Dispute Resolution.

An Interconnection Customer that withdraws or is deemed to have withdrawn its Transition Request shall pay to Transmission Provider all costs that Transmission Provider prudently incurs with respect to that Transition Request prior to Transmission Provider's receipt of notice described above. Interconnection Customer must pay all monies due to Transmission Provider before it is allowed to obtain any Interconnection Study data or results. The additional Withdrawal Penalties under Section 38.7 of the OATT will not apply to withdrawn Transition Requests.