Calpine Solutions Exhibit 100
Witness: Kevin C. Higgins

**BEFORE THE PUBLIC UTILITY COMMISSION
OF THE STATE OF OREGON**

New Load Direct Access	)	
Portland General Electric Company	)	**Docket No. UE-358**

Reply Testimony of Kevin C. Higgins

on behalf of

Calpine Energy Solutions, LLC

July 18, 2019

REPLY TESTIMONY OF KEVIN C. HIGGINS

Introduction

Q. Please state your name and business address.

A. My name is Kevin C. Higgins. My business address is 215 South State Street, Suite 200, Salt Lake City, Utah, 84111.

Q. By whom are you employed and in what capacity?

A. I am a Principal in the firm of Energy Strategies, LLC. Energy Strategies is a private consulting firm specializing in economic and policy analysis applicable to energy production, transportation, and consumption.

Q. On whose behalf are you testifying in this phase of the proceeding?

A. My testimony is being sponsored by Calpine Energy Solutions, LLC ("Calpine Solutions"). Calpine Solutions is a retail energy supplier that serves commercial and industrial end-use customers in 18 states, the District of Columbia, and Baja California, Mexico. Calpine Solutions serves more than 15,000 retail customer sites nationwide, with an aggregate load in excess of 4,500 MW. Calpine Solutions' retail customers are located in the service territories of more than 55 utilities. In Oregon, Calpine Solutions is an Electricity Service Supplier ("ESS") serving customers in the service territories of PacifiCorp and Portland General Electric ("PGE").

Q. Please describe your professional experience and qualifications.

A. My academic background is in economics, and I have completed all coursework and field examinations toward a Ph.D. in Economics at the University of Utah. In addition, I have served on the adjunct faculties of both the University of Utah and Westminster College, where I taught undergraduate and graduate courses in economics. I joined Energy Strategies in 1995, where I assist private and public sector clients in the areas of energy-related economic and policy analysis, including evaluation of electric and gas utility rate matters.

Prior to joining Energy Strategies, I held policy positions in state and local government. From 1983 to 1990, I was economist, then assistant director, for the Utah Energy Office, where I helped develop and implement state energy policy. From 1991 to 1994, I was chief of staff to the chairman of the Salt Lake County Commission, where I was responsible for development and implementation of a broad spectrum of public policy at the local government level.

Q. Have you ever testified before this Commission?

A. Yes. I have testified in thirty prior proceedings in Oregon, including six previous PGE general rate cases, UE 335 (2018), UE 283 (2014), UE 262 (2013), UE 215 (2010), UE 197 (2008), and UE 180 (2006). I also testified in the PGE green tariff case (UM 1953), PGE Opt-Out case, UE 236 (2012) and the PGE restructuring proceeding, UE 115 (2001).

In addition, I have testified in ten previous PacifiCorp Transition Adjustment Mechanism ("TAM") proceedings, UE 339 (2019 TAM), UE 323 (2018 TAM), UE 307 (2017 TAM), UE 296 (2016 TAM), UE 264 (2014 TAM), UE 245 (2013 TAM), UE 227 (2012 TAM), UE 216 (2011 TAM), UE 207 (2010 TAM), and UE 199 (2009 TAM). I have also testified in six PacifiCorp general rate cases, UE 263 (2013), UE 246 (2012), UE 210 (2009), UE 179 (2006), UE

170 (2005), and UE 147 (2003), as well as the PacifiCorp Five-Year Opt-Out case, UE 267 (2013).

I also testified in PacifiCorp's Renewable Adjustment Clause proceeding, UE 352 (2019), the Investigation into PacifiCorp's Non-Standard Avoided Cost Pricing, UM 1802 (2017), the 2017 Inter-Jurisdictional Allocation proceeding, UM 1050 (2016) and Phase II of the Investigation into Qualifying Facility Contracting and Pricing, UM 1610 (2015).

Q. Have you testified before utility regulatory commissions in other states?

A. Yes. I have testified in approximately 220 proceedings on the subjects of utility rates and regulatory policy before state utility regulators in Alaska, Arizona, Arkansas, Georgia, Idaho, Illinois, Indiana, Kansas, Kentucky, Michigan, Minnesota, Missouri, Montana, Nevada, New Mexico, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, South Carolina, Texas, Utah, Virginia, Washington, West Virginia, and Wyoming. I have also prepared affidavits that have been filed with the Federal Energy Regulatory Commission.

<u>Overview and Conclusions</u>

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

A. My testimony addresses PGE's proposal to implement its New Load Direct Access ("NLDA") program through Schedule 689 as described in the direct testimony of PGE witnesses Brett Simms and Jay Tinker and the Company's Advice Filing No. 19-02.

Specifically, I address PGE's proposal to introduce new charges for NLDA service called the Resource Adequacy Charge and the Resource Intermittency Charge and, as well as PGE's proposed Long-Term Energy Option, management of the queue for customers wishing to participate in the NLDA program, and NLDA enrollment criteria.

Q. What are the primary recommendations in your testimony?

A. I offer the following recommendations:

- The Commission should reject both the Resource Adequacy Charge and the Resource Intermittency Charge proposed by PGE for NLDA customers. To the extent that the Commission wishes to address the issue of resource adequacy and capacity provided on behalf of NLDA customers (or direct access customers generally), a generic docket devoted to these issues is the more appropriate venue. Calpine Solutions does not object to a thorough investigation of these subjects, but it should include a close examination into the means by which ESSs can self-supply capacity rather than simply accepting the premise that this product can only be provided by PGE.
- I recommend that the Commission reject PGE's proposed Long-Term Energy Option in its entirety and instruct PGE to use a standard offer analogous to PacifiCorp's Schedule 293. The standard offer should be based on a daily market index price and participation in the standard offer should not count towards the participation cap in the NLDA program.

- With respect to management of the queue, I offer a proposed clarification to the process to ensure that measurement of progress towards the participation cap is conducted in a transparent and reasonable manner.
- With respect to enrollment criteria, I propose clarifications that would prevent customers from being excluded from the program due to immaterial logistical issues and delays in initial approval of PGE's program.
- Finally, I recommend that the opt-out agreement that must be executed by the customer to enroll in the NLDA program should be reviewed and approved by the Commission, after the opportunity for stakeholder review and input.

PGE Proposal for New Charges

Q. Please describe PGE's proposed implementation of its NLDA program.

A. In Order No. 18-341 the Commission adopted rules governing NLDA service. Among other things, the order caps NLDA participation level at 6% of the utility's 2017 weather normalized load[1] and requires that NLDA customers pay a transition charge equal to 20% of the otherwise applicable fixed generation costs.[2] The order also sets certain eligibility requirements for participants, including a minimum load size of 10 MWa.[3]

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[1] Docket No. AR 614, Order No. 18-341 at 7. The Order also provides that the cap may be waived under certain conditions.
[2] *Id*. at pp. 2-3.
[3] *Id*. at pp. 4-6.

In its proposed implementation of NLDA service, PGE calculates its participation cap to be 119 MWa.[4] PGE also introduces two substantial proposed charges and a new product offering not addressed in Order No. 18-341.

Q. What new charges does PGE propose?

A. PGE proposes to impose both a Resource Adequacy Charge ("RAD charge") and a Resource Intermittency Charge ("RIC") on NLDA customers.

Q. Please describe the proposed RAD charge.

A. PGE is proposing to turn NLDA customers into permanent capacity customers of the Company through the RAD charge. According to PGE, the RAD charge is proposed to be a capacity charge that would recover "the costs associated with the procurement of capacity resources necessary to ensure resource adequacy and provide generation reliability services for NLDA customers."[5] In other words, NLDA customers would receive a highly unusual (and expensive) form of direct access service in which they would procure their full power requirements from ESSs while also having to pay PGE for new capacity.

PGE proposes to determine a capacity requirement for NLDA load using a model called RECAP to determine the amount of incremental capacity needed to maintain PGE's resource adequacy standard of 2.4 hours of "loss of load expectation" per year. Once the capacity requirement is determined, PGE proposes to conduct a resource procurement process through which PGE would

[4] PGE/100, Sims-Tinker/10.
[5] PGE/100, Sims-Tinker/15.

secure the amount of capacity to satisfy the requirement.[6] According to PGE's preliminary estimate, the RAD charge could cost as much as $9.00/kW-month.[7]

Q. What is PGE's argument for imposing the RAD charge?

A. PGE claims the RAD charge is necessary to allow the Company to maintain resource adequacy and to prevent new, large loads from "shifting reliability risks" to cost of service customers. In the narrative in Advice Filing No. 19-02, PGE portrays the RAD charge as representing "the operational costs of securing a Customer's capacity should they return to Company energy supply." [8] In other words, the RAD charge was conceived to be a very expensive "insurance policy" in which NLDA customers would be required to purchase <u>in advance</u> from PGE the capacity the NLDA customer <u>would</u> need <u>if</u> the customer were to switch from direct access service to Company supply service at some point in the future. Under this proposed arrangement, the NLDA customer would be required to purchase capacity from PGE on a permanent basis irrespective of whether the customer ever desired to switch to cost of service power supply.

Q. Isn't there already a procedure in place governing the switch from NLDA service to utility cost of service supply?

A. Yes. The NLDA rules require three years' notice for switching from direct access service to cost of service energy supply. A customer that leaves direct access service prior to the full notice period is subject to paying daily market prices plus a premium until the notice period has run its course. This provision already

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[6] *Id*., p. 16.
[7] PGE Advice Filing No. 19-02, p. 7.
[8] *Id*., proposed Tariff Sheet 689-3.

ensures that an NLDA customer who wants to switch to cost of service power does not unreasonably utilize capacity that was intended for cost of service customers during the notice period.

Q. Is switching from direct access to cost of service rates commonplace?

A. No, not for customers who select a permanent opt out. In fact, to the best of my knowledge, no PGE Five-Year Opt-Out customer has ever returned to cost of service rates, even though the program has been around since 2003.

Q. Does PGE present additional arguments in support of the RAD charge?

A. It appears so. Even though the justification offered by the Company in its Advice No. 19-02 filing focuses exclusively on acquiring capacity in case the NLDA customer "returns" to the Company's energy supply, in its opening testimony in this docket the Company appears to expand its rationale to include circumstances in which the power supply intended to serve an NLDA customer somehow does not show up. I say that PGE "appears" to expand its rationale, but the Company's references are so vague it is not clear whether PGE is talking about the same "switch to cost of service supply" justification referenced in its Advice No. 19-02 filing or some other set of circumstances. For example, in this docket PGE argues:

> Without a RAD charge, PGE may be unable to effectively act as reliability provider for its customers. PGE cannot expect to rely on short-term market purchases to meet NLDA demand.[9]

If we pause right here for a moment, one must ask under what premise would PGE be relying on the short-term market to meet NLDA demand? PGE is not the

[9] PGE/100, Sims-Tinker/15.

NLDA's supplier in the first place. Is PGE assuming that the NLDA customer is seeking to switch to cost of service rates? Or is PGE assuming that some other circumstance has occurred? It is not clear from the Company's testimony. PGE then goes on to argue:

> In the event that supply is inadequate, we are obligated to take actions, such as curtail service, on a non-discriminatory basis and cannot discriminate against direct access loads in favor of its cost of service supply customers. To prevent this inequitable outcome, a RAD charge is necessary to allow for forward procurement of capacity resources and to allow sufficient time to secure additional resources to avoid adverse impacts to system reliability. The cost of PGE's capacity procurement would be borne by NLDA customers.[10]

Again, it is not clear whether PGE is reiterating its "switch to cost of service supply" justification offered in its Advice No. 19-02 filing or alluding to some other circumstance.

To the extent that PGE is justifying its proposed RAD charge as a contingency in case the NLDA customer seeks to switch to cost of service rates, the proposal is overreaching and superfluous, as the conditions for a reasonable switch to such service are already provided in the NLDA rules. If, as part of this argument, PGE is concerned about the unlikely scenario in which market-based power (for the "returning" NLDA customer) is "not available at any price," then perhaps some change in curtailment priorities should be considered, rather than resorting to the extreme proposal PGE has offered.

Alternatively, if PGE is concerned about some other scenario in which the power supply intended to serve an NLDA customer somehow does not

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[10] *Id*., pp. 15-16.

materialize, the Company's case has not been articulated clearly enough to warrant consideration by the Commission. But if this is a concern, there are certainly other options to consider, such as requiring an ESS to maintain a physical hedge for its NLDA load that would continually be rolled forward at least a year. Such a requirement can be evaluated as part of a generic proceeding that could be conducted to review resource adequacy issues for direct access service, as I discuss below.

Q. Has the type of curtailment event described by PGE above ever been implemented under the terms of its long-term energy shortage plan or short-term curtailment plan?

A. No. PGE has not had any long-term energy shortage plan (Rule N) or emergency, short-term (Rule C) curtailment events. Moreover, in discovery PGE acknowledges that both planned or unplanned emergency events are likely to reflect regional conditions and potentially impact some or all regional investor-owned utilities.[11] That is, such events, should they occur, are likely to be widespread in nature and not limited to a PGE-specific circumstance.

Q. On page 12 of their opening testimony, Mr. Sims and Mr. Tinker refer to "a general ESS practice of relying on day-ahead market energy purchases." Do you wish to respond to this characterization?

A. Yes. Calpine Solutions serves by far the largest amount of direct access load in Oregon and PGE's characterization does <u>not</u> describe Calpine Solutions' practice as it has been explained to me. My understanding is that Calpine Solutions

[11] Exhibit Calpine Solutions/101, Higgins/1-2 (DR AWEC 019 & DR AWEC 020).

executes financial hedges for its customers' estimated power consumption shortly after contract execution. Calpine Solutions then aggregates its entire estimated customer load and makes its wholesale power purchases over time, <u>but well before the delivery month</u>. Based on a discovery response from PGE, it appears that PGE is misconstruing near-term *scheduling* activity by ESSs as representing ESS *resource acquisition* practices, when in fact the two are not the same thing.[12]

Q. What is your recommendation to the Commission regarding the proposed RAD charge?

A. The proposed RAD charge should be rejected. The proposal is tantamount to a partial but substantial unwinding of direct access service, as it would force NLDA customers to be permanent customers of PGE for "contingent" capacity service. Although I am not an attorney, on its face this requirement appears completely contrary to Oregon's direct access statute, which provides that "All retail electricity consumers of an electric company, other than residential electricity consumers, shall be allowed direct access beginning on March 1, 2002"[13] and which defines direct access as "the ability of a retail electricity consumer to purchase electricity and certain ancillary services, as determined by the commission for an electric company or the governing body of a consumer-owned utility, directly from an entity other than the distribution utility,"[14] and which further defines "electricity" to mean "electric energy, measured in kilowatt-hours,

[12] Exhibit Calpine Solutions/101, Higgins/12(DR Calpine Solutions 023).
[13] ORS 757.601 (1).
[14] ORS 757.600 (6).

or *electric capacity*, measured in kilowatts, or *both*."[15] PGE's proposed requirement that NLDA customers must purchase capacity from the incumbent utility thus appears contrary to the statute, as the statute appears to anticipate that direct access customers would purchase capacity from competitive suppliers.

Q. How should the topic of resource adequacy be addressed?

To the extent that the Commission wishes to address the issue of resource adequacy and capacity provided on behalf of NLDA customers (or direct access customers generally), a generic docket devoted to these issues is the more appropriate venue. Calpine Solutions does not object to a thorough investigation of these subjects, but it should include a close examination into the means by which ESSs can self-supply capacity as opposed to simply accepting the premise that this product can only be provided by PGE. Direct access service is available in many other states besides Oregon and the means to ensure resource adequacy without forcing direct access customers to remain capacity customers of the incumbent utility has been addressed elsewhere. In discovery, PGE concedes that it may be possible for ESSs to support resource adequacy for direct access service, but since the subject matter is complex it would require detailed exploration through a comprehensive policy docket.[16]

Q. Please describe the proposed RIC.

A. The RIC is a proposed capacity charge allegedly for negative imbalance service. Although PGE's proposal is not entirely clear, it appears that the Company's

[15] ORS 757.600 (14). Emphasis added.
[16] Exhibit Calpine Solutions/101, Higgins/10 (DR Calpine Solutions 019).

intent is to levy the RIC in any month in which the *actual* NLDA load that an ESS has the responsibility to serve in the aggregate exceeds the amount of energy that the ESS had *scheduled* for delivery to its aggregate load for at least one hour in the month. At the individual ESS level, such a difference in any hour constitutes a negative imbalance. PGE describes this situation as "under-scheduling." Incurring negative imbalances is not unusual because it is not possible for a scheduler to know the exact amount of load that customers will utilize in advance. This is exacerbated by fact that the wholesale market structure in Oregon does not readily lend itself to hourly scheduling variations aside from differences between on-peak and off-peak hours.

Q. How frequent is under-scheduling for existing long-term direct access ("LTDA") load?

A. PGE states that under-scheduling occurred in approximately 52.4% of hours in 2018. [17]

Q. Does this figure surprise you?

A. No. Since it is difficult to get schedules to match exactly in an hour, one would expect under-scheduling to occur in around half the hours over the course of the year and over-scheduling to occur the other half of the time, all other things being equal. That appears to be what is occurring.

Q. Does the amount of under-scheduling that has been occurring appear to be a significant reliability concern?

[17] Exhibit Calpine Solutions/101, Higgins/14 (DR Staff 01).

A. No. Over the 2016-2018 period the average amount of under-scheduling (during hours in which under-scheduling occurred) of LTDA load was just 8 MW on 219 MWa of LTDA load.[18] The maximum one-hour amount of LTDA under-scheduling over this three-year period was 71 MW,[19] which is still small relative to PGE's Balancing Authority Area load, which can exceed 3,600 MW in some hours.[20] Of course, ESSs are charged for their negative imbalances.

Q. How are negative energy imbalances assessed to ESSs today?

A. ESSs must pay PGE for negative energy imbalances (measured hourly) according to the terms of PGE's Open Access Transmission Tariff ("OATT"), which is regulated by the Federal Energy Regulatory Commission ("FERC").

Q. Since PGE is compensated for negative energy imbalances through its OATT, why is the Company proposing to add the RIC on top of that?

A. According to PGE, its OATT energy imbalance charge is an "energy-only" product. PGE asserts that the RIC is needed to ensure adequate capacity is available to create the energy needed to supply customer loads.[21]

Q. What does PGE propose to charge for the RIC?

A. In its Advice Filing No. 19-02, PGE proposes an initial charge of $0.58 per on-peak kW. But, as drafted, the Company's description of how the RIC would work in practice is confusing. According to the testimony of Mr. Sims and Mr. Tinker:

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[18] Derived from DR AWEC 001, Attachment 001-A CONF. PGE has confirmed that these aggregated numbers are not confidential.
[19] *Id*. PGE has confirmed that this aggregated number is not confidential.
[20] Source: DR Calpine Solutions 001, Attachment 001-A CONF. PGE has confirmed that this number is not confidential
[21] PGE/100, Sims-Tinker/12-13.

> If approved, the RIC will be applied when the electricity schedules for all of the Customers for which the suppliers' schedules is lower than the actual amount of associated customer load. The charge is set as a $ per kW of on-peak demand charge, and at this time, *our proposal does not distinguish the cost by supplier or by customers*.[22]

From this description, it appears that PGE intended to apply the RIC when *suppliers'* schedules *in the aggregate* result in a negative imbalance, irrespective of an individual ESS's scheduling practices. This impression is reinforced in the narrative PGE included as part of its Advice Filing No. 19-02.[23] However, in discovery PGE clarified that it is not the Company's intention to apply the RIC based on aggregate ESS imbalances, but rather based on each ESS's individual imbalances.[24] This interpretation is consistent with PGE's proposed tariff language in Advice Filing No. 19-02, which states:

> This rate is applicable to Schedule 689 Customers when the Electricity Schedule of the Customers for which the Electricity Service Supplier (ESS) has scheduling responsibility is different from the actual amount of energy delivered by the Company to meet the actual aggregated hourly load requirements of the Customers for which the ESS serves.[25]

Q. To what billing units would PGE apply the RIC?

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[22] *Id*., p. 14. Emphasis added.

[23] For example, Advice Filing No. 19-02 states on page 7: "The RIC will be applied during billing periods when the Electricity Schedules for all of the Customers for which the Electricity Service Suppliers (ESSs) schedule is different from the actual amount of energy delivered by the Company to meet the load requirements of the Customers the ESSs serve. This charge is applied when the Company supplies capacity to support the Electricity Schedule of ESSs any time during the billing period. The charge is set at $0.58 per kW of on-peak demand. At this time, PGE's proposal does not distinguish the cost by ESS and this charge is applied regardless of the scheduling practices of a Customer's specific ESS." This language could certainly be read to mean that the RIC would be applied based on the scheduling of ESSs in the aggregate.

[24] Exhibit Calpine Solutions/101, Higgins/13 (DR Calpine Solutions 024).

[25] *Id*., Proposed Tariff Sheet 689-3.

A. Even though the PGE's stated justification for the RIC is related to *hourly* imbalances, the RIC is denominated as a *monthly* on-peak demand charge. I find this approach problematic in that it has no clear nexus to the frequency or extent of actual negative imbalance events. Rather, it appears that a single hour in a month in which a negative imbalance is experienced for an ESS (irrespective of amount) would trigger a monthly demand charge applied to the *total on-peak demand* for each NLDA customer served by that ESS. The basis for this particular rate design is not explained or justified in the Company's filing. Further, there is no reasonable basis to apply an imbalance charge to the NLDA customer rather than to the ESS that is doing the scheduling.

Q. What is your assessment of PGE's RIC proposal?

A. As a threshold matter, in arguing that the RIC is necessary, PGE appears to be contending that the FERC-approved charge for energy imbalance service in PGE's OATT is inadequate. If PGE is seriously concerned with the compensation it receives under its FERC tariff, it seems that the proper forum for such a complaint is FERC, rather this NLDA proceeding. PGE's fundamental complaint here appears to be the proper level of charges and penalties for transmission scheduling imbalances. Those are matters within FERC's exclusive expertise, which are governed by FERC-approved tariffs.

This jurisdictional question aside, PGE's proposal is not well grounded in the principles of cost causation. First, if a RIC is assessed, it should be levied on the ESSs that are doing the scheduling, not the end-use customers. Second, PGE is proposing to levy a *monthly* demand charge based on each NLDA customer's maximum monthly demand for a product supposedly needed to address *hourly* imbalances. According to PGE's proposal, just 1 MW of negative imbalance for one hour in a month would trigger a monthly demand charge applied to the maximum monthly demand for each of the ESS's individual customers. Certainly, there is no relationship between the *amount of negative imbalances* experienced in a given month and the billing determinants PGE is proposing to use in calculating the *amount of the monthly charge* that would be collected from NLDA customers.

Q. Do you have other concerns with the Company's RIC proposal?

A. Yes. PGE's proposal, along with its RAD proposal, presume that the only avenue for addressing resource adequacy concerns is for NLDA customers to be permanently locked-in to PGE as a capacity provider. This premise is fundamentally at odds with the principles of direct access service. PGE's proposal offers no avenue for the ESS to self-supply capacity in lieu of NLDA customers paying PGE for the RIC (or the RAD charge).

Moreover, the RIC would be a duplicative charge if customers were also subject to PGE's proposed RAD charge. I fail to see how PGE can construe that a customer that pays the RAD charge as PGE has proposed – and would thereby be funding significant amounts of "contingent" capacity – should also somehow be responsible for paying the RIC for capacity associated with negative energy imbalances. The fact that PGE proposes to double up these charges is a strong indication that the Company's proposal is neither carefully constructed nor well developed.

Q. Does PGE agree that the RIC is a duplicate charge if the RAD were also imposed?

A. No. Even though PGE admits that providing the RIC service to NLDA customers is not expected to create a need for additional peaking capacity beyond what is required to provide RAD service for the same customer, the Company maintains that the RAD capacity it would procure on behalf of the NLDA customer would not necessarily be flexible enough to provide RIC service.[26] Thus, under the Company's proposal, NLDA customers would be required to buy both products from PGE.

I find the Company's position to be wholly unjustified That PGE would propose to charge NLDA customers as much as $9.00/kW-month for RAD capacity that might not even be capable of addressing the energy imbalance complaint that PGE is making in support of its RIC proposal is an indication of the unreasonableness of the Company's advocacy in this case.

PGE further contends that the RIC and RAD charge would not be double recovery because the RIC revenues would be credited to PGE's production-related revenue requirement.[27] But from the vantage point of an NLDA customer, this distinction is beside the point. NLDA customers would still be paying twice for a redundant product irrespective of whether the payments were credited against the revenue requirement or flowed directly to PGE's bottom line.

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[26] Exhibit Calpine Solutions/101, Higgins/8 (DR Calpine Solutions 018).
[27] *Id*.

Q. What is your recommendation to the Commission regarding the proposed RIC?

A. The proposed RIC should be rejected at this time. The proposed rate design has no clear nexus to energy imbalance service. Moreover, it would constitute a redundant charge if a resource adequacy requirement for ESSs was adopted. As I discussed above with respect to the proposed RAD charge, to the extent that the Commission wishes to address the issue of resource adequacy and capacity provided on behalf of NLDA customers (or direct access customers generally), a generic docket devoted to these issues is the more appropriate venue. Calpine Solutions does not object to a thorough investigation of these subjects, but it should include a close examination into the means by which ESSs can self-supply capacity as opposed to simply accepting the premise that this product can only be provided by PGE.

Further, as I discussed above, Order No. 18-341 requires that NLDA customers pay a transition charge equal to 20% of the otherwise applicable fixed generation costs. NLDA customers will not receive direct services for these charges, but rather the charges have been justified on the grounds of compensating the other stakeholders in the utilities' systems for the opportunities that are "foregone" by not serving these loads directly and for the systemic benefits provided by the existing electric power system. Until a generic docket into resource adequacy can be completed, I propose that the payment of the 20% fixed generation charge should be considered as compensating PGE for the capacity it claims to be providing in support of energy imbalance service.

Long-Term Energy Option

Q. PGE proposes a "Long-Term Energy Option" in its Schedule 689. Could you explain your understanding of PGE's proposal?

A. Yes. PGE's proposed Schedule 689 includes three energy supply options for new large load customers – Third-Party Direct Access Service, the Daily Market Energy Option, and the Long-Term Energy Option.

Third-Party Direct Access service is the option to obtain generation supply through an ESS, as contemplated in Oregon direct access statutes and administrative rules.

The Daily Market Energy Option is the option to obtain generation supply from PGE based on a Mid-Columbia daily index price. PGE states the price under the Daily Market Energy Option would include wheeling and ancillary services charge and additional costs to meet Oregon's Renewable Portfolio Standard ("RPS"). This type of Daily Market Energy Option is also offered to direct access customers in PGE's other direct access programs for existing customers, including the LTDA program, and it is the nonresidential standard offer service to LTDA customers.[28] The same type of daily index pricing option is offered to PacifiCorp's direct access customers.[29]

In contrast, PGE's proposed Long-Term Energy Option is a newly proposed service alternative different from any currently approved service

[28] See, for example, PGE Schedule 490 at p. 2 ("Company-Supplied Energy", containing Mid-Columbia Index prices).
[29] See PacifiCorp Schedule 220, Standard Offer Service.

offering to direct access customers. Although this option is quite different from a daily index option that forms the basis of the LTDA program's nonresidential standard offer, PGE states the Long-Term Energy Option "is PGE's standard offer service for the NLDA program."[30]

Q. What do the administrative rules state about the "nonresidential standard offer" in the NLDA program?

A. The rules are contained in OAR 860-038-0720. They generally state that the same administrative rules regarding the nonresidential standard offer rate in the other direct access programs (which is OAR 860-038-0250) will apply to the NLDA program.[31] The rules also require a forward looking rate adder be applied to an NLDA customer switching to the nonresidential standard offer service as follows:

> To mitigate the rate impact to existing cost-of service customers, an electric company must request Commission approval of a forward-looking rate adder applicable to New Large Load Direct Access Program participants returning to cost-of-service rates or rates under OAR 860-038-0250 [standard offer service] and 860-038-0280 [default service] when the electric company forecasts that:
>
> (a) The return to rates under OAR 860-038-0250 and 860-038-0280 for an individual or group of New Large Load Direct Access Program participants will result in a significant increase to existing cost-of-service rate; or
>
> (b) The return to a cost-of-service rate for an individual or group of New Large Load Direct Access Program participants will result in a significant increase to existing cost of service rate.[32]

[30] PGE/100, Sims-Tinker/19; see also PGE's Advice No. 19-02, Schedule 689 at p. 5.
[31] OAR 860-038-0720(1).
[32] OAR 860-038-0720(3).

This rule suggests that the standard offer is not intended to be a part of the NLDA program itself, but is instead analogous to the cost-of-service offering of the utility, for which customers may need to pay return charges.

Q. Does PGE's proposed Long-Term Energy Service Option require payment under the return-to-service provisions in OAR 860-038-0720(3)?

A. It does not appear so. The applicable provision of PGE's proposed Schedule 689 states:

> RETURN TO COST OF SERVICE PRICING
>
> Customers must provide not less than three years notice to terminate service under this Schedule, or return to Company Supplied Energy. If a Customer's return to Company Supplied Energy or cost-of-service based service increases rates for existing cost-of-service Customers by more than 0.5%, the Customer returning to company supplied energy will be subject to the forward looking rate adder below for three years beginning from the date of notice to return to Company Supplied Energy.[33]

PGE describes the "Company Supplied Energy" as including *only* the Daily Market Energy Option.[34] Similarly, PGE's Advice No. 19-02 itself states: "If the customer elects to return to the Company's Daily Market Energy Option or cost-of-service based pricing, resulting in a rate increase for existing cost-of-service customer by more than 0.5%, the Customer making the election will be subject to the Cost-of-Service Return Charge for three years."[35]

I conclude from these descriptions in the proposed tariff that PGE proposes that the three-year notice provision and the return-to-service charge apply when the customer switches from Direct Access Service to the Daily

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[33] PGE's Advice No. 19-02, Schedule 689 at p. 5.
[34] PGE's Advice No. 19-02, Schedule 689 at p. 4.
[35] PGE's Advice No. 19-02, at p. 8.

Market Energy Option, but do not apply when a customer switches to the Long-Term Energy Option.

Q. Did PGE provide any explanation in its advice filing or its testimony regarding the preferential treatment of customers electing the Long-Term Energy Option over those selecting the Daily Market Energy Option?

A. No. PGE provided no explanation for this different treatment in its testimony, and it has not explained in any of its filings how this treatment complies with the administrative rules' requirement for a return-to-service charge for switching to the standard offer service.

Q. Did PGE provide any explanation for why the NLDA program should include the new Long-Term Energy Option as the standard offer service while the LTDA program for existing customers continues to use a daily index pricing option as the standard offer service?

A. No. PGE does not explain why the NLDA program should have a different standard offer service from the LTDA program. It is not clear if PGE will eventually attempt to also make the Long-Term Energy Option the standard offer service for its LTDA program after the moratorium on changes to the program is lifted.

Q. How does PGE describe the Long-Term Energy Option?

A. PGE states that it will procure the energy product requested by the customer. While PGE states that no cost-of-service assets will be offered to customers (aside from those needed for ancillary services under the OATT), it is apparent that the Company is proposing to sell a specialized energy product with unique pricing to each individual customer.[36] In contrast to daily market index pricing, there is no overall rate or a publicly available index upon which the prices must be based. Instead, the pricing and terms of the service would be controlled by an individualized contract between PGE and the customer. PGE states this specialization is necessary in order to meet state policy requirements and customer needs to comply with legislative requirements, such as the RPS, but does not provide a detailed explanation for why that is the case.[37]

Q. If a customer were to take service under the Long-Term Energy Option, does PGE propose that customer's load would count as load in the NLDA program for purposes of calculating remaining capacity available under the overall participation cap of the NLDA program?

A. Yes. PGE's proposed Schedule 689, at page 4, states: "Election of energy supply from an ESS or from the Company applies toward the cap of this program." Under that provision, the customer taking the Long-Term Energy Option would count towards enrollment in the NLDA program for purposes of calculating remaining capacity under the NLDA program's overall participation cap. However, PGE has provided no justification for this proposal in its testimony.

Q. Do you believe it is reasonable for participation in the PGE-supplied Long-Term Energy Option to count towards the program participation cap?

A. No. My understanding is that PGE argued there should be a cap on the program out of concern that PGE is the provider of last resort, and the cap would limit the

[36] PGE/100, Sims-Tinker/20.
[37] PGE/100, Sims-Tinker/19.

potential impact of many customers abruptly returning to PGE-supplied service. However, if PGE is already serving the customer with a PGE-procured Long-Term Energy Option, there should be no concern that PGE will be harmed in its capacity as the provider of last resort. Additionally, including the Long-Term Energy Option as contributing to the cap will reduce availability in the NLDA program for customers who seek to obtain a direct access product.

Q. Do you have any other concerns with the Long-Term Energy Option?

A. Yes, several. First of all, PGE's proposal to procure energy and RPS products consistent with the specialized concerns of individual customers amounts to a proposal to offer a special contract to NLDA-eligible customers. The Commission's administrative rules define "special contract" as "a rate agreement that is justified primarily by price competition or service alternatives available to a retail electricity consumer, as authorized by the Commission under ORS 757.230."[38] Similarly, PGE's Schedule 99 for Special Contracts describes its purpose as follows: "This schedule describes contracts between the Company and Customers at rates other than those contained in standard schedules." That describes the Long-Term Energy Option, which PGE also describes as a proposal for PGE to provide generation supply in accordance with individually negotiated prices set forth in a contract as opposed to rates contained in a standard schedule.

Q. Are special contracts or special product offerings potentially problematic in a jurisdiction that has direct access service?

[38] OAR 860-038-0005(61).

A. Yes. A utility has an inherent incentive to use its incumbent status and competitive advantage to harm its competitors, the ESSs. Oregon has direct access laws and has adopted policies to promote the development of a competitive retail market. There are clear risks with allowing PGE to offer special contracts or special product offerings. Those risks include cross subsidization by nonparticipating customers to increase PGE's competitive advantage over ESSs, financial risks to the utility itself which could harm nonparticipating customers due to PGE's actions in a competitive market, and the risk the utility or its employees will be motivated to engage in anticompetitive behavior.

In my opinion, these concerns are highly relevant in the context of new customers wishing to exercise retail choice from the outset of their relationship with the utility. PGE will be in the unique position, as the distribution utility that the customer must contact, of having advanced notice of interest by a customer in locating to the utility's service territory. PGE would be able to use its market position to steer customers to its own preferential product offerings to the competitive advantage over ESSs.

Q. Does the Commission allow special contracts?

A. Not according to the Commission's administrative rules. The Commission's administrative rules state: "After March 1, 2002, subject to Commission approval, an electric company may enter into special contracts for distribution service but may not enter into special contracts for power supply."[39] The rules only allow for

[39] OAR 860-038-0260(3).

continuation of a special contract that existed before that date.[40] The only special contract for electric service listed in PGE's Special Contract tariff, Schedule 99, is a contract effective since February 21, 1996 between PGE and the Port of Portland/Cascade General, Inc.

Q. Has PGE previously proposed a new special contract offering to an individual customer since Oregon's enactment of direct access?

A. Yes. In PGE's Advice No. 12-27, PGE proposed a special contract with a large customer. PGE sought a waiver of the administrative rule barring new special contracts. The proposed special contract would have provided a negotiated, market-based price for energy supply and renewable energy certificates, and the customer would have had to pay the transition adjustment charges that would have applied in direct access.[41]

Staff opposed approval of the special contract. In doing so, Staff provided analysis that is relevant here, explaining: "The Commission adopted the prohibition [on new special contracts] to prevent electric companies from using special contracts to compete with Electric Service Suppliers (ESS) and did so to eliminate barriers to competitive electric markets."[42] Staff further found that the special contract offered a discounted rate compared to cost-of-service rates and failed to meet the applicable test for a discounted rate in a special contract under Oregon law, Oregon Revised Statutes 757.230.[43]

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[40] OAR 860-038-0260(4).
[41] See Staff's Memorandum, Advice 12-27 (Jan. 24, 2013).
[42] Staff's Memorandum, Advice 12-27, at p. 4 (Jan. 24, 2013).
[43] Staff's Memorandum, Advice 12-27, at pp. 8-10 (Jan. 24, 2013).

Ultimately, PGE withdrew its proposal for approval of the special contract in response to Staff's recommendation that the Commission not approve the contract.

Q. Are you aware of any Commission policies that address competitive offerings by incumbent utilities that seek to compete with ESSs?

A. Yes. Oregon's direct access law states:

> The duties, functions and powers of the Public Utility Commission shall include developing policies to eliminate barriers to the development of a competitive retail market structure. The policies shall be designed to mitigate the vertical and horizontal market power of incumbent electric companies, prohibit preferential treatment, or the appearance of such treatment, of generation or market affiliates and determine the electricity services likely to be competitive. The commission may require an electric company acting as an electricity service supplier do so through an affiliate.[44]

The law states: "The commission shall establish by rule a code of conduct for electric companies and their affiliates to protect against market abuses and anticompetitive practices."[45]

The Commission's Code of Conduct rules state: "The Code of Conduct rules (OAR 860-038-0500 through 860-038-0640) govern the interactions and transactions among the electric company, its Oregon affiliates, and its competitive operations," and are "designed to protect against market abuses and anti-competitive practices by electric companies in the Oregon retail electricity markets."[46] The order creating these rules indicated the rules were originally intended to "make certain that 'sweetheart' deals based on inside information do

[44] ORS 757.464(1).
[45] ORS 757.464(2).
[46] OAR 860-038-0500.

not compromise the fair treatment requirements of SB 1149"[47]; "to ensure that competitors are treated fairly,"[48]; and "eliminating opportunities for cross-subsidization and cost shifting between regulated and competitive operations so that market participants can compete on a level playing field."[49]

I am not an attorney and will not opine on whether PGE's Long-Term Energy Option would violate the legal requirements under the direct access laws. However, it is apparent that PGE's proposal to offer a specialized product offering certainly implicates the same policy concerns expressed in the law and Commission's orders. In my view, setting aside any legal requirements, it would be harmful to the competitive retail market and contrary to the public interest for the Commission to allow PGE to offer a competitive supply option like the Long-Term Energy Option in the NLDA program.

Q. Does PGE's Advice Filing or its testimony demonstrate how its Long-Term Energy Option satisfies the spirit and requirements of the direct access law and regulations?

A. No. There is no discussion of how the Commission could ensure PGE is not engaged in preferential treatment when it negotiates the terms of the specialized product with individual customers. There is no discussion of how the Commission would ensure PGE does not steer customers to its generation offering. Nor does PGE explain how the Commission would ensure PGE does not engage in inappropriate joint marketing efforts with its traditional utility

[47] Order No. 01-073 at 13.
[48] Order No. 01-073 at 16.
[49] Order No. 01-073 at 16.

services, cross subsidization, or other market abuses in offering of the Long-Term Energy Option.

Q. You indicated that PGE suggests a specialized long-term option, as opposed to daily index price, is necessary to meet the RPS requirements for these customers. Do you have any response to that assertion?

A. PGE provides no basis for that assertion in its testimony. PGE included a Daily Market Energy Option in the NLDA program, for which PGE apparently believes it is able to satisfy the RPS requirements without an individualized energy supply contract.[50] PGE also uses a daily index for its standard offer for the LTDA program for existing customers, and it is apparently able to meet the RPS requirements for such customers. If PGE is suggesting it wishes to offer a specialized green product, PGE could propose a green tariff option as part of its green tariff proposals, subject to the special conditions developed for such offerings.[51] However, such a green tariff offering would be separate from the NLDA program.

Q. Are there any other indications that the Commission did not intend for PGE itself to offer a specialized competitively procured product to customers in the NLDA program?

A. Yes. The Commission's NLDA rules were the result of two proceedings – first, an investigation in Docket No. UM 1837 and second, a rulemaking in Docket No.

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[50] In discovery, PGE indicates that it is proposing to directly allocate the costs of procuring the required RECs to customers subscribing to the Daily Market Energy Option, but the Company has not yet identified the appropriate mechanism(s) or methodologies for doing so. See Exhibit Calpine Solutions/101, Higgins/11 (DR Calpine Solutions 021).

[51] See Order No. 15-405 (containing conditions for a green tariff).

AR 614. During Docket No. UM 1837, both PGE and PacifiCorp argued that the NLDA program should allow the utility itself to supply a competitive product offering to the new large loads.[52] During the AR 614 rulemaking, PGE continued to assert that utilities should be permitted to provide the competitive offering to NLDA customers. PGE analogized to the Public Service Commission of Utah's approval of "Rocky Mountain Power's Schedule 34, which allows for special contracts with new large customers" and the Public Service Company of New Mexico's "approval to offer a special service rate exclusive to new customers through Rate No. 36B."[53]

However, the rules drafted by Staff and approved by the Commission did not authorize special contracts or special service rates offered by a utility exclusively to new customers in a fashion different from the Commission's normal rules barring special contracts. In other words, PGE proposed that the NLDA rules include the right for PGE to offer special rate offerings, such as the proposed Long-Term Energy Option, but the Commission did not include such provisions in the rules.

Q. If PGE wishes to supply specialized product offerings to customers, are you aware of a mechanism by which PGE is permitted to do so?

A. Yes. The Commission's direct access rules contemplate investor-owned utilities creating an unregulated affiliate for the purpose of providing ESS-type services

[52] See Order No. 18-031, Docket No. AR 614, Appendix A, at p. 9 (Jan. 30, 2018); see also PGE's Opening Comments, Docket No. UM 1837, at p. 11 (Nov. 22, 2017); PGE's Reply Comments, Docket No. UM 1837, at pp. 6-7 (Dec. 19, 2017); PacifiCorp's Opening Comments, Docket No. UM 1837, at pp. 8-9 (Nov. 22, 2017).
[53] PGE's Comments, Docket No. AR 614, at p. 10 (April 18, 2018).

with specialized product offerings to customers. In theory, under the Commission's rules, the affiliate would be unable to use the regulated utility's incumbent monopoly status and its market position as the distribution provider to a competitive advantage over ESSs.

Q. You indicated earlier that PacifiCorp is subject to the same NLDA rules established by the Commission. Please describe how PacifiCorp provides a standard offer option to customers in its NLDA program.

A. PacifiCorp's Schedule 293 for its NLDA program relies on the same "Standard Offer Service," available to all customers eligible for direct access in PacifiCorp's Schedule 220, which is a daily index option. PacifiCorp's NLDA program does not contain a specialized, long-term energy option analogous to PGE's proposal. Additionally, enrollment in PacifiCorp's Standard Offer Service is treated similarly to enrollment in cost-based options and is not considered part of the NLDA program. PacifiCorp's Schedule 293 states: "Consumers electing service under this program must give the Company not less than four years' notice to switch to Standard Offer Service or Cost-Based Service . . . ."[54] It also states: "A total of 89 aMW will be accepted under *this program* unless the Commission determines otherwise."[55] Unlike PGE's proposal, PacifiCorp does not include participation in the Standard Offer Service under its Schedule 220 as counting towards the limited participation in the NLDA program.

[54] PacifiCorp's Schedule 293 at p. 3.
[55] PacifiCorp's Schedule 293 at p. 1 (emphasis added).

Q. What is your recommendation with respect to PGE's proposal for a Long-Term Energy Option and standard offer service?

A. I recommend that the Commission reject PGE's proposed Long-Term Energy Option in its entirety and instruct PGE to use a standard offer analogous to PacifiCorp's Schedule 293. The standard offer should be based on a daily market index price and participation in the standard offer should not count towards the participation cap in the NLDA program.

Other Program Issues

Q. Do you have any comments on PGE's proposal for management of enrollment and the queue of customers in the program?

A. Yes, I will address three related subjects.

First, with respect to management of the queue, I would like to offer a proposed clarification to the process to ensure that measurement of progress towards the participation cap is conducted in a transparent and reasonable manner. Such clarification is necessary due to the limited participation cap in PGE's program of 119 aMW, and the fact that customers with load in excess of that amount already appear to be interested in participating in the program.

Second, I have some concerns with PGE's description of how it will apply the enrollment criteria, especially as those criteria will apply to customers attempting to enroll in the program in the period between finalization of the Commission's NLDA administrative rules and the approval of PGE's tariff. Specifically, I propose clarifications that would prevent customers from being excluded from the program due to immaterial logistical issues and delays in initial approval of PGE's program.

Third, I recommend that the opt-out agreement that must be executed by the customer to enroll in the NLDA program should be reviewed and approved by the Commission, after the opportunity for stakeholder review and input.

Management of the Queue and Participation Cap

Q. You stated you had a proposed clarification for the management of the queue and measurement of progress towards the participation cap. Why is a clarification needed?

A. It is apparent that the participation cap has created a scenario where there is more interest in the program than there is space beneath the cap. PGE states it has already received interest that far exceeds the participation cap. This situation can lead to arbitrary economic results and highlights the concerns with a participation cap that is too low. For purposes of this case, there are going to be logistical challenges. Although it is impossible to know for certain if all customers that enrolled in the non-binding queue will actually commit to the program at the conclusion of this case, it is possible that the participation cap will be exceeded. Because there is a risk of the program becoming oversubscribed, there is tension between the individual customer's desire to ensure that it preserves space beneath the participation cap for its entire load, as it might grow over time, and the interest of other customers who could be excluded from participating if a single customer could speculatively preserve all of the space in the queue.

For those reasons, the Commission should ensure the rules for committing load to the program and measuring the level of progress towards the cap are transparent and reasonable for all parties.

Q. Has PGE proposed how it will measure progress towards the cap or what level of commitment it will require from customers to secure space for their load in the program?

A. PGE did not provide very many details in its testimony on how it will ensure that a customer does not speculatively preserve space under the cap to the exclusion of other interested customers. PGE's testimony could have been read to suggest it might rely solely on the customer's statement to PGE of what it expects its load to be for purposes of reserving space in the program for the customer and thereby potentially exclude other later-enrolled customers from the program due to exceedance of the participation cap.[56]

In discovery, however, Calpine Solutions asked PGE to describe how it intends to address this issue by ensuring the reasonableness of a customer's description of its load at the time of its binding commitment to the program. PGE explained that it "will use the load information provided by the customer to PGE that establishes the basis for distribution facilities to meet that customer's load."[57] For example, in the case of a multi-phase build out of a new load over several years, if the customer only commits to construction of the distribution system interconnections necessary for the early phase of the site and does not commit to

[56] PGE/100, Sims-Tinker/22.
[57] Exhibit Calpine Solutions/101, Higgins/3 (DR Calpine Solutions 011).

construction of additional distribution system interconnection facilities for the later phases, PGE states it "will use only the amount of load that's planned and built for to evaluate each customer's load in relation to the cap."[58]

In other words, I understand this to mean that PGE will require the customer to commit in a binding distribution facilities agreement to fund the upgrades (such as a minimum load agreement) necessary for the amount of load that the customer seeks to use for purposes of the reservation of load for that customer in the queue beneath the participation cap.

Q. Does Calpine Solutions agree with PGE's proposal as clarified in discovery?

A. Yes. Calpine Solutions has considered PGE's proposal and agrees, at least in the context of the NLDA program, that it strikes a reasonable balance. I recommend that this level of detail be provided in the Schedule 689 itself to ensure there is no misunderstanding.

Clarifications to the Enrollment Process

Q. What do the administrative rules state with respect to the advance notice a customer must supply to properly enroll in the NLDA program?

A. The administrative rule states:

(1) Each New Large Load consumer must notify the electric company of its intent to enroll in the New Large Load Direct Access Program and opt out of cost-of-service rates at the earlier of either:

(a) A binding written agreement with the utility for eligible new load, or

(b) One year prior to the expected starting date of the incremental load.[59]

[58] Exhibit Calpine Solutions/101, Higgins/4-5 (DR Calpine Solutions 012).
[59] OAR 860-038-0740(1).

With respect to the one-year notice option, the critical issue is how to measure the customer's "expected starting date of the incremental load."

Q. How has PGE described the enrollment requirements for customers?

A. PGE's testimony states that customers must notify PGE of their intent to enroll in the NLDA program and opt out of cost-of-service rates at the earlier of one year prior to the "expected energization date of the new meter or upon entering a written and binding agreement with PGE."[60]

PGE also clarified in response to a data request that PGE does not consider construction power supplied before normal operations of the new large load facility to count for purposes of measuring compliance with the one-year notice requirement. PGE stated:

> The energization date is the date of start up of operations. Standard operating procedure for electric service during construction at any site is that a temporary meter is installed on the site in the developer and/or the contractor's name, to be used prior to and during construction. Since the usage and demand at the temporary meter is generally low, usually rate schedule 32 or 83, it will be served at a cost-of-service rate. Once construction is complete, the temporary meter is removed and the facility is transferred to the customer under the customer's name as the owner/operator. This is the point that the customer's facility is considered energized for purposes of taking service under rate schedule 689. [61]

However, PGE suggests elsewhere in its testimony that it will require the customer's actual energization date of a new meter to be a critical date,[62] to measure the "expected starting date of the incremental load"[63] as used in the administrative rules. For example, PGE states that a customer will be disqualified

[60] PGE/100, Sims-Tinker/21.
[61] Exhibit Calpine Solutions/101 , Higgins/6(DR Calpine Solutions 013).
[62] PGE/100, Sims-Tinker/23:1-4.
[63] OAR 860-038-0740(1).

if it energizes its meter before the effective date of Schedule 689 at the conclusion of this process, apparently without regard to what the customer expected at the time that it provided notice of intent to PGE.[64]

Q. How do you respond to PGE's proposed treatment of the one-year notice issue?

A. First, I certainly agree with PGE that construction power should *not* count as the starting date of the incremental load for purposes of measuring compliance with the notice requirements. PGE's proposed Schedule 689 states: "Construction meters and energy supplied during construction will not apply to this rate schedule."[65] However, the schedule should also more clearly state that energy supplied during construction does not count for purposes of measuring compliance with the one-year notice requirement. Such clarification would help to avoid disputes and would also help to avoid deterring customers from enrolling in the absence of clarity on that point.

Second, PGE's tariff should allow for some amount of start-up activity at the newly constructed facility which may take service under cost-of-service rates before the new large load is committed during the long term for service under the NLDA program. PGE proposes to focus on initial "energization of the meter" at the facility after construction. However, the meter could be energized for ongoing start-up activities that cannot reasonably be considered the normal operations of the incremental new large load. It would be unreasonable to disqualify the

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[64] PGE/100, Sims-Tinker/24:16-20.
[65] PGE's Advice No. 19-02, Schedule 689 at p. 1.

customer from the NLDA program because it had to energize its long-term meter for continued start-up activities before one year expired after its notice to PGE. It would be reasonable for the Commission to establish some level of demand which is so large that it could not reasonably be considered start-up activities. Supplying such start-up energy with cost-of-service energy would not require advance planning by PGE that does not already occur and would not therefore harm other customers. I propose that the Commission require that the threshold be energization of the meter *and* taking service in excess of 1,000 kW.

Q. What is your concern with PGE's description of the enrollment requirements with respect to customers seeking to enroll during pendency of this case?

A. My concern is that PGE has not addressed the unique circumstances of customers that intended to supply a timely notice as soon as the Commission indicated the NLDA program would be offered but may not have been able to supply such notice due to PGE's delay in filing its compliance filing.

The NLDA administrative rules were finalized in Order No. 18-341 on September 14, 2018. It is reasonable to expect that prospective new large load customers would seek to secure a spot in the program shortly thereafter, and may even have made business decisions in reliance on the Commission's order. Unfortunately, however, the order did not specifically direct the utilities to file their compliance tariffs by a date certain.

PacifiCorp filed its NLDA tariff on December 14, 2018. Ultimately, after incorporating comments of stakeholders into a revised filing, PacifiCorp's NLDA program was unopposed and was approved by the Commission at its public meeting on February 26, 2019.

In contrast, PGE's NLDA tariff at issue here was filed on February 5, 2019 – almost five months after the administrative rules became effective. Unlike PacifiCorp's NLDA tariff, PGE's proposal contains new provisions that raise entirely new policy issues in the form of the RIC and the RAD charge, as well as the Long-Term Energy Option. PGE eventually developed a queue and allowed customers to make a non-binding commitment to the program with enrollment opened on April 15, 2019, pending the outcome of this proceeding. The final order is now targeted to be issued on January 6, 2020, with PGE's final compliance tariff due January 13, 2020. By agreement of the parties, the Administrative Law Judge's scheduling order established that customers in the queue must make a binding election by February 14, 2020.

Additionally, my understanding is that, in the interim between the finalization of the administrative rules on September 14, 2018 and April 15, 2019, eligible customers attempted to supply written notice of intent to participate in the program to PGE for purposes of ensuring they would satisfy the one-year notice requirement and/or have their notice submitted before they executed a binding contract for distribution service.

Under these circumstances, customers cannot be expected to have met the advance notice requirements with a binding commitment to the NLDA program a year in advance of beginning normal power deliveries or in advance of executing the necessary distribution construction agreements with PGE.

Q. What is your proposal under these circumstances?

A. I propose that any customer that provided written notice of intent to PGE between finalization of the Commission's rules and the date for a final binding commitment at the conclusion of this case (set for February 14, 2020) not be subject to the strict application of advance notice requirements under these circumstances. The queue itself for this first tranche of enrollment is non-binding, and under the procedural schedule approved by the Administrative Law Judge, customers must make their binding election by February 14, 2020.[66] Under these circumstances, it is not reasonable to exclude customers from the program due to a failure to make a binding commitment to the NLDA program one year prior to energization or prior to a binding commitment for distribution service. Those rules are designed for the program after the tariff is finally approved with applicable terms and conditions of service.

Therefore, I propose it would be reasonable to allow new customers commencing service for normal operations after the one-year anniversary of the Commission's finalization of the administrative rules, i.e., after September 14, 2019, to meet the enrollment criteria by making a binding commitment to the NLDA program by the deadline for such commitments for customers in the queue (currently set for February 14, 2020). Otherwise, customers that may have acted in reliance on the Commission's creation of the program in September 2018 may be harmed solely by the delay in finalizing the provisions of the program and its availability.

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[66] ALJ Ruling (May 24, 2019).

Opt-Out Contract

Q. You indicated that you have a recommendation with respect to the opt-out contract. Could you explain the background on that issue?

A. PGE has indicated that the customer must execute a "customer contract" delineating the terms and conditions of its enrollment in the program.[67] In discovery, PGE supplied a copy of its standard form contract that it uses for the LTDA program, which the customer must execute to enroll in that program, but PGE indicated it is still drafting the contract for the NLDA program, which may change pending the outcome of this proceeding.[68] PGE states that it does not intend for the NLDA form contract to be approved by the Commission.

Q. Do you have any concerns with PGE's proposal?

A. Yes. It is important that the Commission and stakeholders have the opportunity to review the NLDA form contract to ensure that it provisions properly implement the administrative rules and the Commission's determination in this proceeding. The form contract is, in effect, an extension of the Schedule 689 tariff itself, and it should be approved by the Commission. As a practical matter, individual customers are unlikely to have much ability to negotiate different terms into the agreement with PGE, and adverse provisions could present an arbitrary barrier to entry to the program. I propose that PGE be directed to supply the form contract

[67] PGE/100, Sims-Tinker/21:11-14
[68] Exhibit Calpine Solutions/101, Higgins/7 (DR Calpine Solutions 014).

for review after resolution of this proceeding at the time that it files its compliance filing tariffs.

Q. Does this conclude your reply testimony?

A. Yes, it does.

Docket No. UE 358

EXHIBIT

Calpine Solutions 101

PGE Responses to Data Requests

Referenced in Testimony

July 3, 2019

TO: Jesse O. Gorsuch
Alliance of Western Energy Consumers'

FROM: Karla Wenzel
Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to AWEC Data Request No. 019
Dated June 21, 2019

Request:

Has PGE ever had to implement its Curtailment Plan under Rule N? If so, please identify: (1) the date or dates; (2) the stage or stages of curtailment reached; and (3) the circumstances that required implementation.

Response:

No. PGE has not had any long-term energy shortage plan (Rule N) or emergency, short term (Rule C) curtailment events. PGE acknowledges that both planned or unplanned emergency events are likely to reflect regional conditions and potentially impact some or all regional IOUs. The Rule N is the state initiated regional curtailment plan. Curtailments may happen in a planned (given known factors) or unplanned (unexpected transmission and/or generation failures, etc.) manner. In either case, PGE through the IRP evaluates its own balancing authority and regional capacity to identify resource acquisitions that will help to decrease customer impact from a regional (planned or unplanned) capacity shortfall.

July 3, 2019

TO: Jesse O. Gorsuch
Alliance of Western Energy Consumers'

FROM: Karla Wenzel
Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to AWEC Data Request No. 020
Dated June 21, 2019

Request:

Is it PGE's position that a circumstance could exist that would require it to implement its Curtailment Plan but no other utility in the region would have a similar obligation? If so, please explain what that circumstance would be.

Response:

No. The Plan is specifically for a "protracted regional Electricity shortage." Order 93-084 adopting the curtailment policies addressed in Rule in stated "The effects of such a shortage would be regional" (emphasis added). However, PGE in its long-term planning in the IRP, evaluates regional capacity and the impacts within PGE's balancing authority to identify and plan for any resource adequacy shortfalls. The capacity resources identified in the IRP allow for PGE to minimize the likelihood, and severity, of the impacts of a regional curtailment event to PGE's customers.

July 3, 2019

TO: Greg Adams
Calpine Energy Solutions, LLC

FROM: Karla Wenzel
Manager, Pricing & Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to Calpine Energy Solutions, LLC's Data Request No. 011
Dated June 19, 2019

Request:

Reference PGE/100, Sims-Tinker/22:12-13, stating that "The *expected load* will apply toward the cap limit for the first 60 months of service." (emphasis added.) Please explain what evidence the Company will use to verify the reasonableness of the measure of "expected load."

Response:

To identify a customer's expected NLDA load, PGE will use the load information provided by the customer to PGE that establishes the basis for distribution facilities to meet that customer's load. The customer provides this information to PGE as part of the written binding agreement referred to in OAR 860-038-0740.

July 3, 2019

TO: Greg Adams
Calpine Energy Solutions, LLC

FROM: Karla Wenzel
Manager, Pricing & Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to Calpine Energy Solutions, LLC's Data Request No. 012
Dated June 19, 2019

<u>Request:</u>

Reference PGE/100, Sims-Tinker/22:18-20, stating: "In the case of a Customer planning a multi-phase build out, to the extent we are planning for and designing our system around the projected load at full build out, we will use the projected full build out in determining whether the load fits under the cap."

a. **Please explain how PGE will treat the customer's load for purposes of the NLDA cap in the case of a multi-phase build-out where the customer only commits to construction of the distribution system interconnections necessary for the early phase of the site and does not commit to construction of additional distribution system interconnection facilities for the later phases.**
b. **b. Please explain how this issue has been treated for purposes of allowing customers to enroll in the Long-Term Direct Access program (i.e., the five-year program for existing loads), both for the circumstance described in the quoted passage of testimony and in the scenario described in subpart a. of this request.**
c. **c. Please explain any differences in treatment between NLDA and LTDA.**

<u>Response:</u>

a. PGE will use only the amount of load that's planned and built for to evaluate each customer's load in relation to the cap. See PGE Response to Calpine DR No. 11
b. PGE evaluates historical load by service point for purposes of customer participation in the LTDA program and for calculating room remaining under the participation cap on an annual basis. If there is room available under the LTDA cap, the customer may opt out of cost of service (COS) during an election window provided that the customer first meets the requirement that aggregated load is at least 1 MWa with accounts that meet minimum 250 kW facility capacity. If a customer has at least 1MWa load on LTDA, they may opt out other service points with at least 250kW facility capacity during future election windows,

under a new LTDA contract, as long as it fits under the 300MWa cap. The customer load is known at the time, during the window, that the customer seeks to opt out of COS. Should a LTDA customer's load grow such that it requires a new service point and that service point would exceed the LTDA cap, then the load at that separate service point would be treated as ineligible to receive service under LTDA.

c. As discussed in PGE Response to Calpine DR No. 11, the two programs are governed by different sets of rules and terms. NLDA has specific requirements per the AR 614 rules (Order No. 18-175) that require the load to be separately metered and a different threshold for what size of the load is eligible. LTDA is for existing loads that have been served by COS for a full 12 months while NLDA is for new loads that have never received COS other than minimally for construction power. Therefore, PGE evaluates the LTDA through historical loads at participating service points and NLDA through total forecasted future loads. In both cases, customer loads greater than the cap are not eligible to participate.

July 3, 2019

TO: Greg Adams
Calpine Energy Solutions, LLC

FROM: Karla Wenzel
Manager, Pricing & Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to Calpine Energy Solutions, LLC's Data Request No. 013
Dated June 19, 2019

Request:

Reference PGE/100, Sims-Tinker/24:18-20, stating: "If a customer energizes their site prior to the effective date of Sch 689, they cannot participate in Sch 689." Please explain how PGE will treat construction power before normal operations of the new load facility itself.

Response:

The statement regarding energization prior to the effective date of Schedule 689 is not intended to include construction power before normal operations of the new load facility itself. The energization date is the date of start up of operations. Standard operating procedure for electric service during construction at any site is that a temporary meter is installed on the site in the developer and/or the contractor's name, to be used prior to and during construction. Since the usage and demand at the temporary meter is generally low, usually rate schedule 32 or 83, it will be served at a cost-of-service rate. Once construction is complete, the temporary meter is removed and the facility is transferred to the customer under the customer's name as the owner/operator. This is the point that the customer's facility is considered energized for purposes of taking service under rate schedule 689.

July 3, 2019

TO: Greg Adams
Calpine Energy Solutions, LLC

FROM: Karla Wenzel
Manager, Pricing & Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to Calpine Energy Solutions, LLC's Data Request No. 014
Dated June 19, 2019

Request:

Reference PGE/100, Sims-Tinker/21:11-14, stating, PGE will enter into "a customer contract" with each customer for NLDA service after notice is given committing to the NLDA program.

- **a. Please supply PGE's form contract that it will use for this purpose for the NLDA program.**
- **b. Please supply the current version of PGE's form contract used for opting into the Long-Term Direct Access program (i.e., the five-year program for existing loads).**
- **c. Please explain any differences in treatment between NLDA and LTDA.**
- **d. Please explain whether these form agreements will be approved by the Commission and why or why not.**

Response:

- a. PGE is in process of drafting the NLDA agreement to be compliant with AR 614, the Company acknowledges that the outcome of this docket may change some of the terms.
- b. The Long Term Direct Access contract is attached as Attachment A.
- c. The differences are identified in PGE Responses to Calpine DR Nos. 10 and 12. When the Commission resolves issues raised with PGE Schedule 689 other differences may be identified.
- d. PGE does not intend for the NLDA form contract agreement to be approved by the Commission. Similar to PGE's LTDA contract, the NLDA contract will implement the requirements for service per the terms and conditions of the applicable schedule(s), once approved, and PGE's tariff rules.

July 3, 2019

TO: Greg Adams
Calpine Energy Solutions, LLC

FROM: Karla Wenzel
Manager, Pricing & Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to Calpine Energy Solutions, LLC's Data Request No. 018
Dated June 19, 2019

Request:

Reference PGE 100/ Sims-Tinker, 14:4 - 17:4. If the Commission were to approve PGE's RAD charge, what incremental cost would be recovered by the RIC charge? Admit that if the Customer is already paying PGE for capacity through the RAD charge, then the RIC charge is duplicative. If PGE denies, explain how the RIC charge would not constitute a form of double recovery if the proposed RAD charge is adopted.

Response:

Following the approval of PGE's proposed RIC charge and NLDA tariff, PGE will recover from NLDA customers the costs of providing capacity to balance under-scheduling practices, that result in PGE provision of capacity that is not being paid by the benefitting NLDA customer. Providing the RIC service to NLDA customers is not expected to create a need for additional peaking capacity beyond what is required to provide resource adequacy related RAD service for the same customer. However, providing RIC service will require that PGE make sufficient flexible capacity available in the operational timeframe to balance ESS under scheduling practices. Importantly, capacity procured for meeting peaking resource adequacy needs (e.g. day-ahead capacity product) may or may not be capable of supporting RIC related service.

The RIC related revenues collected from NLDA customers will be credited to PGE's production related revenue requirement. Should ESS under-scheduling practices improve, PGE will require less capacity be available for under-scheduling in the operational time frame and RIC related charges will decrease.

The RIC charge does not constitue a form of double recovery as it is an avoidable charge that relates to the operational consumption of sufficiently flexible capacity. The RAD is an unavoidable charge related to the procurement of capacity resources to ensure resource adequacy and meet PGE's peak resource need conditions. The capacity resources procured for RAD service may or may not be capable of balancing ESSs' under-scheduling and providing RIC service. As revenues from the RIC are credited toward all customers through the crediting of PGE's production revenue requirement the RIC charge does not double recover, but instead compensates all customers for the use of capable capacity to meet ESSs balancing needs. Furthermore the RIC charge is avoidable. If an ESS does not underschedule within a month, no RIC service will be assessed, and as scheduling practices improve costs related to RIC service will decrease. As such the RIC charge does not double recover, but serves as a price signal to promote accurate scheduling, and compensates all customers for the operational consumption of capacity.

July 3, 2019

TO: Greg Adams
Calpine Energy Solutions, LLC

FROM: Karla Wenzel
Manager, Pricing & Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to Calpine Energy Solutions, LLC's Data Request No. 019
Dated June 19, 2019

Request:

Does PGE agree that if the Commission were to adopt a resource adequacy requirement for Direct Access service that this product could be provided by the ESSs rather than through PGE's proposed RAD charge? If PGE disagrees, please explain.

Response:

If the Commission were to adopt and enforce robust planning, procurement, and compliance requirements for ESSs, it may be possible for an ESS to support resource adequacy for direct access customers. Dividing resource adequacy and reliability responsibilities between PGE and ESS would require major revisions to ESSs' regulatory requirements to ensure accountability. Without such revisions, the incentive to lower costs while not remaining responsible to ensure reliable service, creates an unfortunate policy outcome that may lead to unintentional and unpredictable outcomes. Furthermore, requiring ESSs to independently manage resource adequacy would risk increasing system costs and potentially serve as a barrier to key initiatives or policy objectives that are more efficiently and effectively achieved through a centralized provider. Such subjects are complex and would require detailed exploration through a comprehensive policy docket.

July 12, 2019

TO: Greg Adams
Calpine Energy Solutions, LLC

FROM: Karla Wenzel
Manager, Pricing & Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to Calpine Energy Solutions, LLC's Data Request No. 021
Dated June 28, 2019

Request:

Reference PGE/100, Sims-Tinker/19:3-7, discussing the Dailey Market Energy Option, which "will be priced on . . . additional costs to meet Oregon Renewable Portfolio Standard (RPS), and other applicable legislative requirements."

a. Please explain how PGE proposes to allocate the costs of RPS compliance to such customers, including whether such customers will each be allocated the costs of the 80-percent bundled REC requirements of Oregon's RPS.

b. Please explain how PGE has allocated RPS costs under the equivalent of the Dailey Market Price Option in the direct access programs for existing customers, including whether and how PGE allocates the costs of the 80-percent bundled REC requirements of Oregon's RPS to such customers.

Response:

a. PGE is proposing to directly allocate the costs of procuring the required RECs to customers subscribing to the Daily Market Energy Option, but has not yet identified the appropriate mechanism(s) or methodologies for doing so. There is not currently a liquid market or index for bundled or unbundled RECs and often these products are procured via long-term contracts for specific resources, hence the inclusion of PGE's Long Term Market Energy Option in this proceeding. The costs will include the costs of complying with Oregon's RPS, inclusive of the applicable bundled and unbundled requirements.

b. For long-term direct access (LTDA) customers, PGE has passed on the costs associated meeting Oregon's RPS during the five year transition period via Schedule 129 LTDA transition adjustment. For periods after the transition period, PGE has yet to develop a methodology for allocating the costs associated with RPS compliance, but PGE expects to use an approach similar to the final one used for NLDA.

July 12, 2019

TO: Greg Adams
Calpine Energy Solutions, LLC

FROM: Karla Wenzel
Manager, Pricing & Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to Calpine Energy Solutions, LLC's Data Request No. 023
Dated June 28, 2019

<u>Request:</u>

Reference PGE/100, Sims-Tinker/12:3-5, referring to "a general ESS practice of relying on day-ahead market energy purchases. What is PGE's basis for this characterization?

<u>Response:</u>

PGE has conducted reviews of aggregated ESS schedules and individual schedule information, which is publicly available on OASIS, and each indicates a reliance on market transactions that largely mirror the block nature of day-ahead products (e.g. daily purchase, 16 hour heavy load purchase, and 8 hour light load purchase). For example, please refer to response to Calpine DR 017 including Calpine DR 017_Attach 001-A_CONF Tab 'ESS Load' Column G. The hourly data shows the aggregate schedules of all ESS deliveries to PGE. PGE notes that the aggregated hourly shape is consistent with the availabe pre-schedule block products (e.g. day-ahead and monthly) with heavy load products offered hour ending 7 through hour ending 22 on Monday through Saturday and light load products offered hour ending 1 through 6 and hour ending 23 through 24 all days as well as all day Sunday and holidays.

July 12, 2019

TO: Greg Adams
Calpine Energy Solutions, LLC

FROM: Karla Wenzel
Manager, Pricing & Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to Calpine Energy Solutions, LLC's Data Request No. 024
Dated June 28, 2019

<u>Request:</u>

Reference PGE/100, Sims-Tinker/14:5-8, which states "If approved, the RIC will be applied when the electricity schedules for all of the Customers for which the suppliers' schedules is lower than the actual amount of associated customer load. The charge is set as a $ per kW of on-peak demand charge, and at this time, our proposal does not distinguish the cost by supplier or by customer."

a. **Why does this statement refer to "suppliers' schedules" [plural possessive] rather than "supplier's schedules" [singular possessive]? Is it PGE's intention to levy the RIC based on the *aggregate* ESS negative imbalance irrespective of whether an individual ESS has a negative imbalance, positive imbalance, or no imbalance in a given hour?**

b. **Does PGE intend to charge an ESS for the RIC in an hour in which the ESS does not have a negative imbalance but all ESSs in the aggregate have a negative imbalance? If so, what is the rationale for charging the ESS that does not have a negative imbalance?**

c. **Please explain the statement: "[A]t this time, our proposal does not distinguish the cost by supplier or by customer."**

<u>Response:</u>

a. No. It is not PGE's intention to levy the RIC based on aggregate ESS negative imbalance. The referenced passage contains a typographical error and should read "supplier's schedules."

b. Please refer to part a of this response.

c. The basis for the initial RIC calculations is on aggregated ESS data. While the RIC will apply on an individual basis, the determination of the charge was not performed on an individual basis meaning there is not an ESS-specific RIC charge.

July 10, 2019

TO: John Crider
Public Utility Commission of Oregon

FROM: Karla Wenzel
Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to OPUC Data Request No. 001
Dated June 26, 2019

<u>Request:</u>

Please detail how the Company currently handles the issue of an ESS that has under scheduled its load for the hour. Please provide any evidence, and quantify any associated costs when/if applicable.

<u>Response:</u>

As the balancing authority and reliability provider within its service territory, PGE is charged with maintaining system balance and ensuring safe, reliable operation for all customers, regardless of supplier. PGE's operations personnel are responsible for planning generation over various timeframes and rely on a balancing authority area (BAA) level load forecast, inclusive of direct access loads, when planning the system. PGE must make sure it has sufficient capacity available if an ESS under-schedules its load in order to fulfill its reliability obligations. When an under-scheduling event occurs, PGE uses its resources (e.g. physical plants and contracts) to ensure the system is in load-resource balance and reliability is maintained while complying with all BAA responsibilities and requirements. Due to the nature of the interconnected grid, system supply and demand must always be matched in order to maintain frequency. This occurs every hour, regardless of ESS schedules, and PGE is the sole entity responsible for this balance within its BAA.

As evidenced in the below table, ESS under-scheduling for 2018 is positively correlated with PGE's highest hours of load, when the system is likely already constrained. PGE has not analyzed every under-scheduling event, nor has it attempted to quantify the costs of each event. However, during these events, PGE maintains system balance by having cost-of-service supply resources available and using them accordingly for the benefit of direct access loads.

Highest Load Hours	Percentage Under-scheduled
200	100.0%
400	95.0%
600	90.7%
800	87.5%
1000	85.2%
2000	75.7%
4000	65.5%
8000	55.3%
8760	52.4%