BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

UM 2032

In the Matter of

PUBLIC UTILITY COMMISSION OF OREGON,

Investigation into the Treatment of Network Upgrade Costs for Qualifying Facilities

NEWSUN ENERGY LLC'S MOTION TO COMPEL DISCOVERY

I. INTRODUCTION

Pursuant to OAR 860-001-0420 and OAR 860-001-0500(7), NewSun Energy LLC ("NewSun") hereby moves the Public Utility Commission of Oregon (the "OPUC" or "Commission") for an order compelling each of PacifiCorp ("PAC" or "PacifiCorp"), Portland General Electric Company ("PGE"), and Idaho Power Company ("IPC" or "Idaho Power," collectively with PacifiCorp and PGE, the "Joint Utilities") to produce the requested data as described herein.

In determining the first issue presented in this docket—who should pay for network upgrades—this Commission should understand who benefits from such upgrades. This is so because if the Commission decides that *users and beneficiaries* should pay rather than the QF, then this docket will move into a "Phase II" in which the parties and Commission will investigate "how that policy should be implemented?" The Commission cannot reasonably decide that other users and beneficiaries should pay without at least some understanding regarding whether

ALJ Ruling at 4 (May 22, 2020) (adopting Staff's proposed issues list).

or how those users and beneficiaries might *benefit* from such upgrades. All parties agree that in the context of Federal Energy Regulatory Commission ("FERC")-jurisdictional interconnections, there is a presumption that all users and beneficiaries benefit from network upgrades and therefore should pay.² Here, the Joint Utilities assert that FERC's presumption is based merely on a policy decision and not on facts about who benefits or how such benefits accrue, seemingly hinting that this Commission must undertake such a factual review before making its own policy decision.³ Yet, the Joint Utilities refuse to provide NewSun with meaningful discovery about what kinds of benefits might accrue to the system.

NewSun requested exactly that. As described below, the majority of NewSun's data requests included in this Motion to Compel (summarized in Table 1) request meaningful discovery regarding what types of benefits accrue to transmission system from QF-driven network upgrades, FERC-jurisdictional network upgrades or other upgrades required for load service or otherwise. The Joint Utilities' response to these requests are included in Attachment A. Understanding how system users benefit from these transmission level upgrades is highly relevant and indeed, highly targeted to inform key matters the Commission is deciding, that is, the Commission's task to decide as a policy matter whether all users and beneficiaries should be required to pay for such upgrades. Given the central nature of this question to the policy decision at hand, the discovery requested is also commensurate with the needs of this case.

The final row of data requests summarized in Table 1 concerns the practical differences and/or similarities between QFs and non-QFs that may justify or refute the differential treatment

Joint Utilities/100, Vail-Bremer-Foster-Larsen-Ellsworth/23-24; Staff/100, Moore/14; Interconnection Customer Coalition/100, Lowe/20.

Joint Utilities/300, Wilding-Macfarlane-Williams/2.

the Joint Utilities advocate for in this case. The Joint Utilities' responses to these requests are included in Attachment B.

Many of the Joint Utilities responses refer to other responses to data requests from other parties. The most relevant of these responses to this motion are included in Attachment C.

Table 1

Data Requests	Brief Description
PGE DR 9	Basic information on upgrades to the transmission system related
PAC DR 10	to both interconnection-driven network upgrades and upgrades
IPC DR 8	caused by other system needs (i.e., load service) and including
	what benefits each upgrade offers the system.
PGE DR 10	List and QF-driven network upgrades that provided no benefit to
PAC DR 11	the system.
IPC DR 9	
PAC DR 19	An inquiry focused on one part of PacifiCorp's system, the
	Prineville area, where there is substantial interaction between
	upgrades made pursuant to both load service needs and
	interconnection generator needs.
PGE DR 6, 7, 19	Data requests seeking to validate practical differences and/or
PAC DR 6, 8, 24	similarities between QFs and non-QFs in terms of their power
IPC DR 5, 7, 18	purchase agreements ("PPAs"), interconnections, and
	transmission arrangements.

NewSun engaged in substantial conferral with the Joint Utilities on this Motion to Compel and has dramatically decreased the scope of this motion from that which was originally anticipated. NewSun appreciates the efforts from Joint Utilities to engage in that process and the patience of the Commission, ALJ and other parties. However, parties have been unable to resolve the dispute regarding how much discovery is appropriate in this phase of the proceeding. NewSun understands, however, that the Joint Utilities may provide further responses on the category of data requests concerning the practical differences/similarities between different types of facilities. Should they do so, that may further limit the scope of this motion; however, as of the filing, these issues remain outstanding as described below. NewSun looks forward to moving this case forward.

II. LEGAL STANDARD

Under the Commission's rules, discovery in contested cases "must be commensurate with the needs of the case, the resources available to the parties, and the importance of the issues to which the discovery relates."⁴ The Commission follows the Oregon Rules of Civil Procedure ("ORCP") to the extent not inconsistent with its own administrative rules.⁵ Under the ORCP, "parties may inquire regarding any matter, not privileged, which is relevant to the claim or defense of the party seeking discovery or to the claim or defense of any other party." Further, it is not grounds for objection that the information sought will be inadmissible if the information sought appears reasonably calculated to lead to the discovery of admissible evidence.⁷ According to the Commission's rules, relevant evidence means "evidence tending to make the existence of any fact at issue in the proceedings more or less probable than it would be without the evidence."8 Finally, the Commission will not allow discovery that is unreasonably cumulative, duplicative, burdensome or overly broad, discovery that is privileged, or discovery that would require a party to develop information or prepare a study for another party unless the capability to prepare the study is possessed uniquely by the party from whom discovery is sought, is not unreasonably burdensome, and has a high degree of relevance to the issues in the proceeding.9

⁴ OAR 860-001-0500(1).

⁵ OAR 860-001-0000(1).

⁶ ORCP 36 B(1).

⁷ *Id*

⁸ OAR 860-001-0450(1)(a).

⁹ OAR 860-001-0500(2)-(4).

III. DISCUSSION

In this case, the discovery NewSun requests should be compelled because it is relevant and important to the issues raised in this proceeding, is consistent with the Commission's rules that it be commensurate with the needs of the case and not unreasonably burdensome, and because it is consistent with the resources available to the parties.

In particular, discovery related to whether and how other users and beneficiaries "benefit" from transmission system upgrades is highly relevant and central to determining the policy question of who should pay and commensurate with the needs of the case, as described herein.

A. Whether and How Other Users and Beneficiaries "Benefit" From Transmission System Upgrades is Highly Relevant to Decide "Who Should Pay?"

Understanding whether or how other users and beneficiaries might benefit from transmission system upgrades is highly relevant to the first issue presented in this case of who should be required to pay for such network upgrades. For example, current Commission policy recognizes that there may be some benefit to the system from network upgrades because it relieves a QF of the obligation to pay for such an upgrade if the QF can "establish quantifiable system-wide benefits." FERC also presumes that such upgrades provide a system benefit and therefore socializes the cost of that benefit among all users and beneficiaries of the transmission system by providing credits to the interconnection customer. Therefore, whether the upgrades

In re Pub. Util. Comm'n of Or. Investigation into Interconnection of PURPA Qualifying Facilities With Nameplate Capacity Larger than 20 Megawatts to a Pub. Utils. Transmission or Distribution System, Docket No. UM 1401, Order No. 10-132 at 3 (Apr. 7, 2010).

Standardization of Generator Interconnection Agreements and Procedures, 104 FERC 61,103, Order 2003, Final Rule (hereafter "FERC Order 2003") at PP. 693-694 (Jul. 24, 2003)

can provide system-wide benefits is highly relevant to and bears on the question of who should be required to pay for those upgrades.

It would be quite an odd outcome if in Phase I of this docket the Commission decides that *users and beneficiaries* should pay for network upgrades, but then in Phase II decides that, in fact, no such benefits accrue to those users and beneficiaries. We would end up exactly where we started, thus defeating the purpose of having a bi-phasal docket in the first place (presumably the purpose of the two-phase docket was to completely avoid Phase II if the Commission decides to keep the status quo that QFs should bear the whole cost of the network upgrades).

Yet, this is exactly what the Joint Utilities advocate for. They object to NewSun's data requests as being "outside the scope of Phase I and may be addressed in Phase II." In testimony, the Joint Utilities recommend revising Issue 3 in this docket to reflect that Phase II should address the Commission's quantifiable system-wide benefits standard. The Joint Utilities' recommendation presumes that the Commission will retain its current quantifiable system-wide benefits standard (in a docket opened to consider revising that standard). NewSun and other parties advocated in this case for a change to the Commission policy to align with the FERC presumption that system upgrades provide a system-wide benefit and therefore should by default be socialized. If the Commission adopts such a policy, it could completely avoid getting into the issue of how a QF would demonstrate "quantifiable system-wide benefits" under current Commission policy, but rather stick to the current plan of addressing in Phase II how a policy would be implemented if the Commission finds that users and beneficiaries should pay for network upgrades. Therefore, these questions regarding what types

Attachment A (PGE Response and Supplemental Response to NewSun DR 9; PacifiCorp Response and Supplemental Response to NewSun DR 10). Idaho Power did not object on these grounds. Idaho Power Response and Supplemental Response to NewSun DR 8.

Joint Utilities/300, Wilding-Macfarlane-Williams/21.

of benefits accrue to the system from transmission level upgrades are highly relevant to this Phase I of the docket and the question regarding who should pay.

NewSun's data requests relating to benefits from transmission level upgrades are requests PGE 9, PAC 10, and IPC 8. The requests specifically ask:

For each network upgrade constructed since January 1, 2014, please provide:

- (a) The cost of the network upgrade,
- (b) Where [utility] first identified the need for the network upgrade (e.g., load growth, interconnection request, transmission request, integrated resource plan, or other),
- (c) How the network upgrade was funded (e.g., utility funded, queue number funded, other),
- (d) Whether the network upgrade was included in rate base or whether [utility] intends to include it in rate base,
- (e) If the network upgrade was included in rate base, the rate of return earned on the network upgrade,
- (f) The incremental transmission operations resulting from the network upgrade (e.g., increased throughput, increased load serving capability, enhanced reliability, improved transfer capability within the existing system, relief of existing congestion on the transmission system, or others), and
- (g) The net increase or decrease in transmission customer rates that resulted from the network upgrade.

These requests cover both interconnection-driven network upgrades and other transmission system upgrades made for other purposes such as load service. Subsections (b) and (f) are bolded to highlight that those are the most crucial pieces of information necessary to inform the Commission's policy decision in this docket, that is, where the need for the upgrade was identified and what benefits it provides to the system. However, the other subparts are also useful to inform the Commission about the magnitude of such costs, how they were funded, whether they were included in rate base, what rate of return the utility earned on it, and any change in transmission costs resulting from the upgrade. It would have little value, for example,

to understand the types of upgrades and their benefits, without also knowing the cost of those upgrades.

It is NewSun's understanding that there are or could be upgrades driven by a QF interconnection request that are the same or substantially similar to upgrades triggered by another process, yet they are treated markedly different. NewSun seeks to highlight those differences, as a factual matter. For example, upgrades for load service and FERC-jurisdictional interconnections, even for projects and upgrades located far from Oregon's load, are included in rates on the basis that they benefit the system and users and beneficiaries across the system.¹⁴ And, beyond that, QFs that sell any portion of their output to someone other than the interconnecting utility are treated as FERC-jurisdictional and entitled to differential treatment.¹⁵ However, even more pertinent, a QF that sells its FULL output to its interconnecting utility, but simply enters into a non-QF power purchase agreement (i.e., it keeps QF status for the other benefits that status conveys such as exemptions from the Federal Power Act and certain state law, but enters a bi-lateral agreement with the utility instead of invoking the PURPA mandatory purchase obligation) is treated as FERC-jurisdictional, and thus entitled to different and better treatment of its upgrades. 16 This begs the question of whether there really is a factual difference about the benefits provided by certain QF-driven upgrades to justify requiring Network Resource Interconnection Service ("NRIS") and that QFs to fund network upgrades without

See In re PacifiCorp, d.b.a Pacific Power Request for General Rate Revision, Docket No. UE 374, PAC/4200, Vail/31 (Aug. 21, 2020) ("[T]he reliable performance of the transmission system in all areas—not just an area local to a single customer or group of customers—is critical to maintaining the ability to economically use the full transfer capability of the greater transmission system.").

¹⁵ FERC Order 2003 at PP. 813-814.

Attachment D (Email data request supplements from Idaho Power and PacifiCorp dated May 17, 2021 and May 26, 2021 respectively).

reimbursement. Transparency into the benefits provided by substantially similar upgrades, therefore, can provide substantial insight to the Commission in deciding whether QFs should be allowed to elect Energy Resource Interconnection Service ("ERIS") and who should be required to pay.

Each utility pointed NewSun to their responses to other party requests in which they simply list interconnection-driven network upgrades, but not any benefits resulting from those upgrades. Then, for other upgrades not driven by interconnections, each of the utilities provided some information but not all of the crucial information requested. Notably, PGE and Idaho Power provided limited lists of transmission system upgrades. PGE provided a list of major transmission system upgrades over the last 3 years and Idaho Power provided a list of transmission system projects greater than \$250,000 back to 2014, are requested, but neither listed the benefits these upgrades provide to their system. PacifiCorp refers us to its testimony in its rate case and produces a table, also produced in its rate case, detailing several transmission system upgrades including a high-level overview of the system benefits. Notably, however, PacifiCorp's chart does not always include a sufficient description of what exactly the upgrade was (substation, line reconductor, etc.), sufficient detail on where the need for the upgrade was identified and what benefits it provides to the system. None of the Joint Utilities indicate how the upgrades were funded or any change in transmission costs resulting from the upgrade.

NewSun requests that the Joint Utilities be compelled to fully respond to the requests.

The Joint Utilities are in the best position to understand what types of benefits various upgrades

17 Attachment A.

Attachment A (PGE Response and Supplemental Response to NewSun DR 9).

Attachment A (IPC Response and Supplemental Response to NewSun DR 8).

Attachment A (PAC Response and Supplemental Response to NewSun DR 10).

provide to their system. In fact, in its rate case, the same PacifiCorp witness that is testifying in this case testified that transmission level upgrades could, for example include "benefits" like "increased load serving capability, enhanced reliability, conformance with NERC Reliability Standards, improved transfer capability within the existing system, [and] relief of existing congestion." Note that these are the same terms NewSun used in its own data requests in this case. Yet, the Joint Utilities refuse to provide complete and meaningful data responses detailing exactly what types of benefit their system receives from such transmission level upgrades, even for ones which presumably are or will be included in their customer rates. As such, full and complete responses to these data requests should be compelled.

B. Requests Seeking Information Related to Benefits Accruing to the System from Transmission System Upgrades are Commensurate with the Needs of the Case

As discussed above, information regarding the types of benefits that might accrue to the transmission system are relevant to the policy decisions at issue in this case. As interconnection-driven network upgrades in Oregon are fairly limited in number, it is useful and informative to look to other types of transmission-level upgrades as well and in other states. Indeed, utilities routinely justify these other transmission upgrades based on the benefits provided. These are just as relevant and necessary to this case because the same type of transmission level upgrade can be required for a QF-interconnection as for load service, for example, and provide the same kinds of benefits to the system. While the Joint Utilities may not want to reveal the types of benefits a QF-driven upgrade provides, if they are seeking and securing rate recovery for other similar upgrades, then it is not unreasonable to assume that they would be tracking and have some documentation justifying the potential or realized benefit of that upgrade. The Joint Utilities

In re PacifiCorp, d.b.a Pacific Power Request for General Rate Revision, Docket No. UE 374, PAC/1000, Vail/12-13, (Feb. 14, 2020).

object to this broader scope on the basis that the requests are overly broad and unduly burdensome.²²

Limiting discovery to only interconnection-driven network upgrades does not provide an adequate data set to analyze the types of benefits that transmission level upgrades provide. For example, in PGE's initial response to NewSun DR 9, PGE simply referred NewSun to PGE's response to Staff's data requests 12 and 13. In those responses, PGE simply states that it has not constructed any interconnection-caused network upgrades on its transmission system.²³ If it is correct that PGE has not constructed any interconnection-caused network upgrades than it is useful to look at other comparable transmission system upgrades.

The Joint Utilities have also not constructed very many transmission system upgrades.

The list of transmission system upgrades provided by PGE in its supplemental response includes a total of 19 projects over the last 3 years.²⁴ Going back to 2014 as requested would not likely add substantially more projects. Idaho Power listed 34 projects since 2014.²⁵ However,

PacifiCorp listed over 80 categories of upgrades and discussed each category's high-level system benefits.²⁶

Indeed, in PacifiCorp's rate case, the Commission found the high-level information provided by PacifiCorp sufficient to justify inclusion in rates absent any further proof, which may be gleaned via the discovery process, supporting disallowance. In that case, Staff originally requested more detailed information on each of PacifiCorp's transmission system upgrades (one-

Attachment A (PGE Response and Supplemental Response to NewSun DR 9).

Attachment A (PGE Supplemental Response to NewSun DR 9; PacifiCorp Supplemental Response to NewSun DR 10; Idaho Power Response to NewSun DR 8).

²³ Attachment C.

Attachment A (IPC Response and Supplemental Response to NewSun DR 8).

Attachment A (PAC Response and Supplemental Response to NewSun DR 10).

line diagrams, change orders, interconnection studies, maps, approval documents or contracts of consistent and detailed quality for all projects that would allow Staff to verify cost and function) and sought rate disallowance on the grounds that PacifiCorp had not provided such information.²⁷ However, the Commission declined to disallow the upgrades on the basis of "such discovery issues" and in light of the fact that PacifiCorp had provided "a narrative description of the nature and benefit of each project."²⁸ Rather, the Commission noted that it "do[es] not expect Staff to review all of the underlying documentation for every capital project proposes for recovery," but that the review process should be "tailored to the scale of the proceeding, and employ sampling, particularly where there are numerous smaller projects, to identify areas of concern."²⁹

Here, NewSun is not seeking the detailed information Staff requested in the rate case, but rather is simply seeking from the Joint Utilities the same general type of high-level narrative information PacifiCorp provided in its rate case and as discussed below a simple sampling of one area of PacifiCorp's system. The information requested here is only slightly more detailed that what PacifiCorp was able to provide in its rate case and for many more projects than PGE or Idaho Power. Further, NewSun is doing in this case exactly what the Commission noted would have been appropriate in PacifiCorp's rate case: to investigate these kinds of issues in discovery.

In addition, the policy questions raised in this docket may have consequential impacts to the financeability of QFs in Oregon. The large scale of network upgrades QFs are being required to cover under current practice is significant, and the state of Oregon is moving evermore

In re PacifiCorp, d.b.a Pacific Power Request for General Rate Revision, Docket No. UE 374, Order No. 20-473 at 40-41, n.190 (Dec. 18, 2020).

²⁸ *Id.* at 41-42

²⁹ *Id.* at 42.

towards greater decarbonization. These efforts and others illustrate the need that PURPA was designed to fill, that is to encourage the development of QFs as an alternative to traditional fossil fuels. Given the vastly more resources the Joint Utilities possess and great importance of this docket, it should not be unduly burdensome for the utilities to provide the information requested.

This is especially true because each utility likely already has or will seek to include those upgrades in customer rates. Therefore, since the utilities likely already track system benefits, the requests should not be unduly burdensome and full and complete responses should be compelled.

C. Requests Regarding Benefits to the System from QF-Driven Network Upgrades are not Vague and Should be Compelled.

Further, the Joint Utilities should also be compelled to provide responses regarding whether QF-driven network upgrades benefited the system. NewSun DRs PGE 10, PAC 11, and IPC 9 ask:

Please list all QF-funded network upgrades that did not result in any benefit to the transmission system, such benefits to include, but not be limited to, increased load serving capability, enhanced reliability, improved transfer capability within the existing system, or relief of existing congestion on the transmission system?

While NewSun understands that the Joint Utilities may not want to disclose potential benefits provided or not provided by QF-driven network upgrades, this question is not too vague for the Joint Utilities to answer. The Joint Utilities responded that the term "benefit" was vague and ambiguous, that they did not know what the Commission meant by the "quantifiable systemwide benefits" standard established in Order 10-132, and to state the obvious that QF-driven network upgrades are designed as necessary to interconnect the QF.³⁰ The Joint Utilities clearly understand what is meant by "benefit to the transmission system" given that they have testified

Attachment A (PGE Response and Supplemental Response to NewSun DR 10; PacifiCorp Response and Supplemental Response to NewSun DR 11; Idaho Power Response to NewSun DR 9).

to it in past rate cases regarding non-QF-driven transmission system upgrades. Indeed, the Joint Utilities are the very entities whose entire relationship with the Commission is based on the premise of justifying the benefits to ratepayers for various types of capital costs. Therefore, even if additional clarity may be needed about the specific definition of "quantifiable system-wide benefits" in this particular context, that does not mean the Joint Utilities should be permitted to avoid exploring the question all together. If the Joint Utilities are justifying that the same types of upgrades benefit ratepayers in a different context, then it is indeed relevant to whether such upgrades would also benefit ratepayers in this context. Therefore, given that the core question in this docket is whether ratepayers (or other users/beneficiaries) should be required to fund such upgrades, then this request is entirely relevant to this docket. As such, full and complete responses should be compelled.

D. Requests Focusing on the Prineville Area of PacifiCorp's System Are Likely to Produce Admissible Evidence in This Case and are Commensurate to the Needs of This Case.

In addition to requesting generic information about transmission system upgrades and QF-driven network upgrades discussed above, NewSun also sought information about a particular area of PacifiCorp's system where system upgrades have been constructed for a variety of both load service and generation interconnection, and possibly for other reasons. This is consistent with the sampling approach the Commission favored in PacifiCorp's rate case as discussed above. NewSun has not sought detailed information on each and every upgrade on all of the Joint Utilities' systems, but simply focused in on this one area for further analysis.

NewSun's DR 19 directed to PacifiCorp asks for information relating to transmission system upgrades to PacifiCorp's Prineville-area Ochoco to Corral transmission line and associated upgrades: where PacifiCorp identified the need for the upgrades, how they were

funded, the load forecast relied upon in justifying the upgrade, the cost, and additional detailed information regarding this area.³¹

PacifiCorp does not object to this request on the grounds that it is not relevant, but rather on the grounds that it is not likely to lead to admissible evidence.³² Under ORCP 36, "[i]t is not a ground for objection that the information sought will be inadmissible at the trial if the information sought appears reasonably calculated to lead to the discovery of admissible evidence." Further, the OPUC rules provide that "[e]vidence is admissible if it is of a type commonly relied upon by reasonably prudent persons in the conduct of their serious affairs."33 Here, PacifiCorp does not claim that the discovery sought would itself be inadmissible, but only that it would not lead to admissible evidence, and PacifiCorp fails to cite any evidentiary provision under which such data is likely to be inadmissible. It is not entirely clear exactly what PacifiCorp's objection is.

In any event, the information sought is relevant and reasonably calculated to produce admissible evidence. The Prineville area of PacifiCorp's system could present a useful case study for the Commission to understand the different types of transmission level upgrades and what types of benefits they convey to the system. And a reasonably prudent person in analyzing who should be responsible for the cost of network upgrades would rely upon such information in making that decision. For example, constructing a new line in that area could benefit both the loads (a lot of data centers) and generators (solar projects) and also provide benefits to the system as a whole such as enhanced reliability. Focusing on a narrow portion of the system has

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Attachment A (NewSun DR 19 to PAC).

OAR 860-001-0450(1(b).

the benefit of also limiting the scope of discovery to a confined section rather than simply asking about any and all network upgrades.

There are several patterns in this area that may be particularly informative to the Commission in deciding as a policy matter whether it is appropriate to require that QFs fund upgrades without reimbursement and whether they should be eligible for ERIS. First, some generators in this area have received studies showing project-killing-levels of network upgrade costs but only to find out later that PacifiCorp constructed and rate-based other network upgrades for the purposes of serving new load in the area. This begs the question of whether the generator should have been saddled with the full cost of those network upgrades given the benefits they could have provided to other users in the area.

Second, several interconnected projects or projects with executed interconnection agreements are of a size to qualify as a QF, but that interconnected as FERC-jurisdictional and as ERIS. There are also examples of projects in this area that have switched back and forth between being a QF or not being a QF. The requirement that QFs selling 100% of their output to PacifiCorp interconnected with NRIS and bear to full cost of the network upgrades, means that some projects may not be able to move forward under that arrangement. Their solution, then is to make other arrangements to sell their power (i.e., not to sell 100% to PacifiCorp under a QF contract) so that they can either interconnect under ERIS or receive refunds for their network upgrade costs from other users, or both. This begs the question of whether the current policies and practices in Oregon are acting to discourage QF development.

A quick look at one project in the Prineville area could provide a helpful example.

Queue 731 first entered the interconnection queue in March 2016 and has been issued three different interconnection System Impact Studies ("SIS") and one Facilities Study. The first SIS

issued in January 2017 indicates the generator will not operate as a QF, that it selected NRIS but also requested to be studied as ERIS (something allowed under the FERC process). It revealed over \$9 million in network upgrades for ERIS, over \$133 million in network upgrades for NRIS, and for NRIS only it was contingent upon an over \$822 million transmission line to Yakima being constructed by a higher-queued customer and a 10-year timeline. In the second SIS issued November 2017 the generator switched to QF status and studied as NRIS. Then in the third SIS issued January 2018, it switched back to non-QF status and studied as ERIS. It finally moved to the Facilities Study and kept its status as a non-QF taking ERIS with network upgrades in the amount of approximately \$7 million. That project signed an interconnection agreement in November 2018. The higher-queued project obliged to construct the Yakima transmission line never moved forward. Therefore, the relationship between various projects in the area could have significant impacts on other projects, and there are substantial differences in cost between the NRIS service imposed on QFs and the ERIS service permitted by FERC.

The difference with transmission level projects implemented for load service is that there is less transparency. For interconnection projects, PacifiCorp publicly provides its studies on OASIS. PAC DR 19 asks specifically about the Ochoco to Corral transmission line constructed in the same area, which NewSun understands was for load service, although the justification for the line is among the things requested.

In pursuing load-driven network upgrades, NewSun understands that PacifiCorp significantly advocates for those projects with the public, Bonneville Power Administration (who also has a number of facilities in the area), and local, state and federal officials. PacifiCorp's communications likely included at least some discussion of the "benefits" such a project would

provide and therefore could be significantly informative to this docket. As such, PacifiCorp should be compelled to respond in full to the data requested in NewSun's DR 19.

E. The Joint Utilities Cannot Fault Parties for Failing to Provide Factual Support and Then Refuse to Provide Discovery.

It is not grounds for objection whether information sought is related to a *factual* or a *policy* question. This is a contested case.³⁴ A contested case includes development of a factual record and discovery. The Joint Utilities attempt to distinguish FERC's presumption from the recommendations in this case by asserting that FERC's presumption that all system users benefit from system upgrades was a *policy* decision as opposed to what is being sought in this case which they allege is a *factual* assumption.³⁵ And then they criticize parties for providing no factual support.³⁶ And then they refuse to provide discovery that might show whether and how system users might benefit from system upgrades.

The Commission is being asked to make a *policy* determination in this case, which, on the one hand, makes this case more like the alleged *policy* decision FERC made. However, on the other hand, NewSun disputes that FERC had no factual basis upon which to make its decision. Further, even if FERC made a pure *policy* decision with no factual support, this case is set up as a contested case (which the Joint Utilities wanted) so that the parties can investigate those *factual* issues and provide this Commission with some factual basis upon which to make its own policy decision.

While it is not clear why this is being handled as a contested case since individual legal rights, duties or privileges are not being decided, NewSun will participate in the process that has been established, which is a contested case process.

Joint Utilities/300, Wilding-Macfarlane-Williams/2.

³⁶ *Id*.

The Joint Utilities cannot have it both ways. They cannot fault parties for failing to provide the Commission with factual support about system benefits and then refuse to provide such factual support because the Commission will ultimately make a policy decision.

F. Joint Utilities Should Provide Complete Responses to Data Requests Concerning the Relationship Between PPAs, Interconnections, and Transmission Arrangements

NewSun also asked three data requests of each utility aimed at understanding the relationship between PPAs, interconnections, and transmission arrangements. The Joint Utilities provided some supplemental information on these requests which has reduced the scope of this motion to compel, yet there are a couple key pieces of information lacking. NewSun seeks information related to each PPA under which the Joint Utilities purchase power including whether power is purchased under a PURPA or other type of contract, whether the facility is certified as a QF, what type of interconnection service they received, and what type of transmission service. The three questions asked of each Joint Utility were essentially asking for the same or similar information from the perspective of the PPAs, the perspective of the interconnection process and the perspective of the transmission request process.³⁷ NewSun includes all of the requests here for the practical purpose of informing the ALJ of the types of information requested and received, but given the additional information provided, this Motion to Compel is limited to the data described below.

First, in response to the PPA question (PAC DR 6), PacifiCorp appears to have only listed Oregon-sited facilities, and in response to the request regarding interconnection requests (IPC DR 7), Idaho Power appears to only have provided information on Oregon-sited interconnections. These requests are relevant to all facilities because the baseline PURPA

Attachment D (PPAs: PGE DR 6, PAC DR 6, IPC DR 5; Interconnection: PGE DR 8, PAC DR 8, IPC DR 7; Transmission: PGE DR 19, PAC DR 24, IPC DR 18).

mandatory purchase obligation in federal law does not change across state lines, and different states' implementation could be informative. For example, in testimony, the Joint Utilities also assert that there are "practical differences between FERC-jurisdictional generators and QFs," that bear on the question of whether QFs should be treated differently.³⁸ NewSun believes that there are substantially identical facilities being treated differently and its aim with this series of questions was to prove out whether there are practical differences borne out and whether they compel the policy result the Joint Utilities seek in this case. Data on facilities sited in other states will provide a more comprehensive picture of such practical differences (or similarities) between QFs and non-QFs.

Second, in response to these questions both PacifiCorp and Idaho Power were able to provide at least some info linking named facilities with their interconnection data and transmission data.³⁹ PGE simply refers NewSun to its OASIS website for the interconnection and transmission information.⁴⁰ While some limited information is available on OASIS, project names are often not used making it extremely difficult to match up a particular interconnection or transmission request with a particular PPA or facility. NewSun understands that PGE has represented that it has interconnected all QFs as NRIS and that Port Westward 2 is the only facility interconnected under ERIS and serving network load. However, there are a variety of other PPAs that PGE has executed including those non-QF PPAs listed in response to the Northwest and Intermountain Power Producer Coalition's request 33⁴¹ and other DRs asking specifically about QF PPAs. NewSun is also not able to understand what types of upgrades were

Joint Utilities/100, Vail-Bremer-Foster-Larsen-Ellsworth/35.

Attachment B (IPC Response to NewSun DR 18; PacifiCorp Supplemental Response to NewSun DR 6).

Attachment B (PGE Response to NewSun DR 8).

⁴¹ Attachment C.

included in the interconnection and/or transmission studies because PGE's OASIS (unlike PacifiCorp and Idaho Power) does not make studies publicly available. PGE should therefore be required to produce those studies in this docket or otherwise make them publicly accessible on OASIS for use in this docket.

IV. CONCLUSION

This docket, against NewSun's and other parties' wishes, is a contested case.

Participation in such a process can be a substantial burden for small companies like NewSun and NewSun itself endured the burden to respond to substantial discovery from the Joint Utilities. At issue in this docket are matters with consequential impacts to the financeability of QFs in Oregon. It is imperative to ensure that any decision made in this docket is compliant with PURPA and cognizant of the impacts to QFs. NewSun asked the Joint Utilities direct and focused requests regarding the potential benefits their system or other users may receive from upgrades to the transmission system that have been or could be funded by a QF. These potential benefits are essential to understanding the first issue presented in this case of "who should be required to pay?" To deny this motion to compel, would prevent NewSun's ability to meaningfully participate and make its case to the Commission. Rather, granting this motion will help provide the Commission receives specific data to make an informed decision. As such,

NewSun respectfully requests that the Commission compel the Joint Utilities to provide complete responses to the data requests.

Dated this 28th day of May 2021.

Respectfully submitted,

NewSun Energy LLC

/s/ Marie P. Barlow

Marie P. Barlow, In-House Counsel, Policy & Regulatory Affairs NewSun Energy LLC mbarlow@newsunenergy.net

Attachment A

DRs regarding system "benefits"

March 5, 2021

TO: Marie Barlow

NewSun Energy, LLC ("NewSun")

FROM: Robert Macfarlane

Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC UM 2032

PGE Supplemental Response to NewSun Data Request No. 009 Dated January 6, 2020

Request:

For each network upgrade constructed since January 1, 2014, please provide:

- a. The cost of the network upgrade,
- b. Where PGE first identified the need for the network upgrade (e.g., load growth, interconnection request, transmission request, integrated resource plan, or other),
- c. How the network upgrade was funded (e.g., utility funded, queue number funded, other),
- d. Whether the network upgrade was included in rate base or whether PGE intends to include it in rate base.
- e. If the network upgrade was included in rate base, the rate of return earned on the network upgrade,
- f. The incremental transmission operations resulting from the network upgrade (e.g., increased throughput, increased load serving capability, enhanced reliability, improved transfer capability within the existing system, relief of existing congestion on the transmission system, or others),
- g. The net increase or decrease in transmission customer rates that resulted from the network upgrade,

Supplemental Response:

After conferral with NewSun, PGE understands that NewSun's requests were intended to encompass upgrades to the transmission system more broadly—not just Network Upgrades associated with interconnection or transmission service, as that term has been defined by FERC and used by the Commission and parties to this proceeding. Specifically, PGE understands that NewSun seeks information regarding "major" transmission system upgrades PGE has completed, the cost of the upgrade, and the reason for the upgrade. As specific examples of the types of projects it is interested in, NewSun mentioned constructing a new transmission line, reconductoring a transmission line, or constructing a new substation.

Because NewSun's requests used the term "network upgrades," which are the subject of this docket, PGE maintains that its initial responses were complete and adequate. Based on PGE's new understanding that NewSun's requests were intended to encompass upgrades to the transmission system more broadly, PGE objects that the requests are overly broad and unduly burdensome. PGE also objects that the information requested relates to an issue that PGE understands is outside the scope of Phase I and may be addressed in Phase II. Notwithstanding and without waiving these objections, PGE responds as follows:

Please see Attachment 009 and 018A, which contains major transmission upgrades PGE has constructed over the last three years, along with the cost of the upgrade and the reason for the upgrade.

Note this response applies to NewSun Data Request Nos. 9, 10, 13, 15 and 18.

Response:

Please see PGE's Responses to Staff Data Request Nos. 12 and 13.

Funding Project	Funding Project Name	Previous Year Actuals (Combined)	2018 Actuals	2019 Actuals	2020 Actuals	Projected 2021 Spend	Projected Future Years Spend (Combined)	SUM	Project Overview/Justification
P35802	Horizon Phase II Project	\$16,448,787	\$8,198,309	\$443,321	\$7,565	\$0	\$0	\$25,097,983	Install second bulk power transformer and 230 kV source to Horizon substation to avoid overloading equipment in the summer to meet NERC Compliance requirements.
P35834	Round Butte Transmission Upgrades	\$1,815,934	\$2,967,327	\$1,779,458	\$86,852	\$33,446	\$1,770,000	\$8,453,017	Install a Special Protection Scheme to reduce the PRB plant impact of a System Operating Limit required to maintain system stability. Replace relays and reactors on the 500/230 kV transformer that are at the end of their life and mitigate fault current concerns. Install breakers on the two 230 kV line positions to PACW's Cove substation for reliability.
P36039	Harborton Reliability Project PH1	\$3,722,284	\$8,850,687	\$10,737,496	\$9,273,767	\$2,064,369	\$0	\$34,648,604	The loss of the Rivergate VWR1 transformer can result in overloads and low voltage concerns in the North Portland area (both on PGE's system and PACW's system). This project installs a new bulk power transformer at Harborton to help mitigate these concerns, meeting NERC Compliance requirements. In addition, the project sectionalizes the Rivergate-Trojan 230 kV line, which is part of the South of Allston Path, adding system flexibility.
									Rebuild the existing Northern substation and convert to 115 kV. The conversion of the substation enables the existing 57 kV line to be sold to PACW, who will then utilize the line for a project to mitigate NERC Compliance concerns for both PACW and PGE. The rebuild of Northern substation eliminates antiquated equipment at the substation and installs SCADA for remote monitoring capabilities. The project also includes a rebuild of the Rivergate South substation and distribution voltage conversion from 11 kV to 13 kV at both substations. NOTE: The majority of
P36178	North Portland Conversion	\$0	\$71	\$204,287	\$272,970	\$4,646,438	\$10,125,059	\$15,248,824	the Future Year costs are for distribution work. Provided third 115 kV source to both the Shute substation and the West
P36211	Shute-West Union 115 line addition	\$255,700	\$4,382,432	(\$14,671)	\$59,696	\$0	\$0	\$4,683,157	Union substation for system redundancy and flexibility.
P36341	St Marys System Protection Upgrade	\$0	\$241,260	\$2,098,872	\$78,087	\$809,136	\$671,363	\$3,898,718	Installs a second substation battery at the St Marys West substation. The failure of the single battery to perform when called upon to operate at the substation will cause the protection system to be unable to clear a fault. If this fault was on the 230 kV system, this can result in load loss over 600 MW on PGE's western part of the system. A new control enclosure will also be installed for the 230 kV yard, as well as replacement of an overdutied circuit breaker per NERC Compliance requirements.
									Install a second bulk power transformer at the Blue Lake substation. Install a second 115 kV ring bus with two new 115 kV lines, one to Tabor and one to McGill. This work mitigates overloads on the Blue Lake VWR2 bulk power transformer and the Blue Lake-Fairview 115 kV line, meeting NERC Compliance requirements. The installation of the second bulk power
P36373	Blue Lake Phase II	\$257,536	\$3,124,717	\$13,334,199	\$7,910,833	\$237,563	\$1,352,127	\$26,216,976	transformer enables the decommissioning of the antiquated Linneman substation. NOTE: Future Year costs are for distribution work. Rebuilds the antiquated Gresham substation 115 kV yard to address aging
P36439	Gresham Sub 115kV Rebuild	\$0	\$0	\$1,194,029	\$1,710,648	\$14,000	\$858,644	\$3,777,321	equipment and seismic concerns. Replaces the main and aux buses, 16 disconnect switches, and 8 circuit breakers.

P36666	Build Evergreen Substation	\$0	\$177,601	\$2,000,548	\$34,028	\$546,000	\$37,479,549	\$40,237,727	Constructs a new bulk power substation with a 230 kV yard, two 230 kV lines, two bulk power transformers, a 115 kV yard, and four 115 kV lines. This project is required to install additional bulk system capacity, mitigating NERC Compliance overloads at the Horizon substation and the west side 115 kV transmission system due to load growth in the area.
P36679	Orenco Substation 115kV Rebuild	\$0	\$21,811	\$1,017,842	\$3,839,343	\$219,793	\$17,852,353	\$22,951,142	Reconductors the Orenco-Sunset 115 kV line to mitigate NERC Compliance overloads. Rebuilds the substation to a breaker and one half configuration, improving reliability and addressing 115 kV circuit breakers that become overdutied with the energization of Evergreen substation to meet NERC Compliance requirements.
									Converts the Brookwood substation to 115 kV, offloading the Cornelius-Orenco 57 kV corridor, which can experience loading and voltage concerns during summer or winter conditions. Installs two new 115 kV lines, one to Shute and one to St Marys, creating a new path from St Marys substation to the North Hillsboro area, adding system redundancy and flexibility to meet
P36680 P36763	Brookwood Substation Conversion Install Horizon VWR3 Transformer	\$0 \$0	\$0 \$0	\$2,455,169 \$185,964	\$3,592,874 \$2,392,927	\$24,623,153 \$4,163,413	\$6,109,000 \$0	\$36,780,196 \$6,742,304	NERC Compliance requirements. Installs a third bulk power transformer at Horizon substation to mitigate overloads on the existing bulk power transformers caused by load growth in the area, meeting NERC Compliance requirements.
		•	**	,,	7 -7-2-7-2-	, ,,,,,,,,,	,	, •, · · · · · · · · · · · · · · · · · ·	Reconductors the Canyon-Urban 115 kV line to address NERC Compliance overload concerns that can occur when the South of Allston Path flows from the south to the north, and the California-Oregon Intertie flows from the south to the north. The reconductor of the line is also necessary to implement temporary system configurations during the Harborton Phase 2
P36860 P36907	Canyon-Urban 115kV Reconductor Reconductor Murrayhill-St Marys	\$0 \$0	\$0 \$0	\$15,023 \$45,640	\$372,217 \$506,513	\$1,323,493 \$4,715,043	\$1,222,524 \$0	\$2,933,257 \$5,267,196	Project. Reconductors the Murrayhill-St Marys 230 kV line to address NERC Compliance overload concerns that can occur when the South of Allston Path flows from the south to the north.
P36916	Harborton Reliability Project PH2	\$0	\$0	\$1,650,965	(\$159,986)	\$432,495	\$28,739,003	\$30,662,477	Route the Horizon-St Marys-Trojan 230 kV line into Harborton, sectionalizing the line into three lines, providing flexibility on the South of Allston Path. Rebuilds the existing 115 kV system between the Harborton and Canyon substations due to the change in system topology with the source for the area moving from St Marys to Harborton. This mitigates overloads on this path as well as addresses NERC Compliance concerns on the existing Harborton-Rivergate #2 115 kV line.
									Builds a new substation to serve new load growth while also addressing existing heavily-loaded distribution infrastructure in the area. The new substation will have three 115 kV sources; the third source splits the McLoughlin-Wilsonville 115 kV line, routing the McLoughlin side to Tonquin and the Wilsonville side to Rosemont. This new configuration mitigates NERC Compliance overload concerns on the Oswego-West Portland 115 kV line, the Canemah-Rosemont 115 kV line, and the
P36954	Tonquin Substation Build	\$0	\$0	\$0	\$102,874	\$1,208,000	\$42,017,000	\$43,327,874	Meridian-Sherwood 115 kV line. Storm repair due to the loss of multiple 500 kV towers on the Grizzly BPA-
P37062	Rebuild Grizzly-RB 500kV Towers	\$0	\$0	\$0	\$4,724,698	\$0	\$0	\$4,724,698	Round Butte 500 kV line. Wildfire repair due to the loss of multiple 230 kV structures on the Bethel-
P37110	Restore Bethel-RB 230 kV Line	\$0	\$0	\$0	\$803,993	\$4,021,300	\$0	\$4,825,293	Round Butte 230 kV line.

P37112 Kelley Point Reconfiguration \$0 \$0 \$0 \$0 \$393,218 \$0 \$393,218 Grand Total \$22,500,242 \$27,964,216 \$37,148,142 \$35,609,898 \$49,450,861 \$148,196,622 \$320,869,980

Addresses NERC Compliance requirements on the North Portland 115 kV system. Provides a second source to the Kelley Point substation, which is solely reliant on the Rivergate substation today.

March 5, 2021

TO: Marie Barlow

NewSun Energy, LLC ("NewSun")

FROM: Robert Macfarlane

Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC UM 2032

PGE Supplemental Response to NewSun Data Request No. 010 Dated January 6, 2020

Request:

Please list all QF-funded network upgrades that did not result in any benefit to the transmission system, such benefits to include, but not be limited to, increased load serving capability, enhanced reliability, improved transfer capability within the existing system, or relief of existing congestion on the transmission system?

Supplemental Response:

After conferral with NewSun, PGE understands that NewSun's requests were intended to encompass upgrades to the transmission system more broadly—not just Network Upgrades associated with interconnection or transmission service, as that term has been defined by FERC and used by the Commission and parties to this proceeding. Specifically, PGE understands that NewSun seeks information regarding "major" transmission system upgrades PGE has completed, the cost of the upgrade, and the reason for the upgrade. As specific examples of the types of projects it is interested in, NewSun mentioned constructing a new transmission line, reconductoring a transmission line, or constructing a new substation.

Because NewSun's requests used the term "network upgrades," which are the subject of this docket, PGE maintains that its initial responses were complete and adequate. Based on PGE's new understanding that NewSun's requests were intended to encompass upgrades to the transmission system more broadly, PGE objects that the requests are overly broad and unduly burdensome. PGE also objects that the information requested relates to an issue that PGE understands is outside the scope of Phase I and may be addressed in Phase II. Notwithstanding and without waiving these objections, PGE responds as follows:

Please see Attachment 009 and 018A, which contains major transmission upgrades PGE has constructed over the last three years, along with the cost of the upgrade and the reason for the upgrade.

Note this response applies to NewSun Data Request Nos. 9, 10, 13, 15 and 18.

Response:

PGE objects that the phrase "any benefits to the transmission system" is vague and ambiguous. The Joint Utilities have explained their position regarding system-wide benefits in their testimony. Notwithstanding and without waiving this objection: PGE has not constructed any QF-funded Network Upgrades on its transmission system. Please see PGE's Response to Staff Data Request No. 12.

NewSun Information Request 1.10

For each network upgrade constructed since January 1, 2014, please provide:

- (a) The cost of the network upgrade,
- (b) Where PacifiCorp first identified the need for the network upgrade (e.g., load growth, interconnection request, transmission request, integrated resource plan, or other),
- (c) How the network upgrade was funded (e.g., utility funded, queue number funded, other),
- (d) Whether the network upgrade was included in rate base or whether PacifiCorp intends to include it in rate base,
- (e) If the network upgrade was included in rate base, the rate of return earned on the network upgrade,
- (f) The incremental transmission operations resulting from the network upgrade (e.g., increased throughput, increased load serving capability, enhanced reliability, improved transfer capability within the existing system, relief of existing congestion on the transmission system, or others), and
- (g) The net increase or decrease in transmission customer rates that resulted from the network upgrade,

Response to NewSun Information Request 1.10

PacifiCorp objects to this data request on the grounds that certain information requested is overly broad and unduly burdensome, including subparts (b), (f) and (g). Moreover, subpart (f) is vague and ambiguous and subpart (b), to the extent it goes beyond generator interconnection-driven network upgrades, is not reasonably calculated to lead to the discovery of admissible evidence in this case. It is not clear what "incremental transmission operations resulting from the network upgrade" refers to. Subject to and without waiving these objections, PacifiCorp responds as follows:

PacifiCorp understands the term "Network Upgrades" to refer to generator interconnection-driven Network Upgrades as defined by PacifiCorp's Open Access Transmission Tariff (OATT), a definition Public Utility Commission of Oregon (OPUC) staff and the Joint Utilities have used throughout the course of this docket. With that understanding, information regarding Network Upgrades identified in interconnection studies is publicly available on PacifiCorp's Open Access Same-Time Information System (OASIS), and also in PacifiCorp's responses to OPUC data requests propounded in this docket, including OPUC Information Request 13. In addition:

Despite PacifiCorp's diligent efforts, certain information protected from disclosure by the attorney-client privilege or other applicable privileges or law may have been included in its responses to these data requests. PacifiCorp did not intend to waive any applicable privileges or rights by the inadvertent disclosure of protected information, and PacifiCorp reserves its right to request the return or destruction of any privileged or protected materials that may have been inadvertently disclosed. Please inform PacifiCorp immediately if you become aware of any inadvertently disclosed information.

UM 2032 / PacifiCorp January 21, 2021 NewSun Information Request 1.10

- (a) Please refer to PacifiCorp's responses to OPUC Information Request 13.
- (b) PacifiCorp's responses to OPUC Information Request 13.
- (c) PacifiCorp's responses to OPUC Information Request 13.
- (d) PacifiCorp's responses to OPUC Information Request Nos. 13 and 14. Network upgrades constructed and placed in-service from January 1, 2014, through December 31, 2020, as identified in the response to this data request, are included in Oregon rate base, but not included in Oregon customer rates until January 1, 2021.
- (e) The approved rate of return in Oregon on rate base is 7.137 percent, effective January 1, 2021.

NewSun Information Request 1.10

For each network upgrade constructed since January 1, 2014, please provide:

- (a) The cost of the network upgrade,
- (b) Where PacifiCorp first identified the need for the network upgrade (e.g., load growth, interconnection request, transmission request, integrated resource plan, or other),
- (c) How the network upgrade was funded (e.g., utility funded, queue number funded, other),
- (d) Whether the network upgrade was included in rate base or whether PacifiCorp intends to include it in rate base,
- (e) If the network upgrade was included in rate base, the rate of return earned on the network upgrade,
- (f) The incremental transmission operations resulting from the network upgrade (e.g., increased throughput, increased load serving capability, enhanced reliability, improved transfer capability within the existing system, relief of existing congestion on the transmission system, or others), and
- (g) The net increase or decrease in transmission customer rates that resulted from the network upgrade,

1st Supplemental Response to NewSun Information Request 1.10

In further support of the Company's response to NewSun Information Request 1.10 dated January 21, 2021, the Company responds further as follows:

After conferral with NewSun, PacifiCorp understands that a number of NewSun Data Requests, including 1.10, 1.19, 1.20, 1.21, and 1.22 were seeking information on upgrades to the transmission system more broadly, not just Network Upgrades associated with interconnection service, as that term has been defined by the Federal Energy Regulatory Commission (FERC) and used by the Public Utility Commission of Oregon (OPUC) and parties to this proceeding.

Specifically, PacifiCorp understands that NewSun seeks information regarding various types of major transmission system upgrades PacifiCorp has completed, the cost of the upgrade, and the reason for the upgrade. As specific examples of the types of projects that NewSun is interested in, NewSun mentioned constructing a new transmission line,

Despite PacifiCorp's diligent efforts, certain information protected from disclosure by the attorney-client privilege or other applicable privileges or law may have been included in its responses to these data requests. PacifiCorp did not intend to waive any applicable privileges or rights by the inadvertent disclosure of protected information, and PacifiCorp reserves its right to request the return or destruction of any privileged or protected materials that may have been inadvertently disclosed. Please inform PacifiCorp immediately if you become aware of any inadvertently disclosed information.

UM 2032 / PacifiCorp March 5, 2021 NewSun Information Request 1.10 – 1st Supplemental

reconductoring a transmission line, constructing a new substation, and adding breakers, disconnects, or communications equipment.

Because NewSun's data requests used the term "network upgrades," a term that is defined in the Open Access Transmission Tariff (OATT), and a term that all parties have used in testimony consistently with the OATT's definition, PacifiCorp maintains that its original data request responses were complete and adequate. Based on PacifiCorp's new understanding that NewSun's requests were intended to encompass upgrades to the transmission system more broadly, PacifiCorp reiterates its objections that the requests are overly broad and unduly burdensome. Moreover, the data requests relate to issues outside the scope of Phase 1 of this proceeding, and that may be addressed in Phase 2. Notwithstanding and without waiving these objections or its original objections, PacifiCorp responds as follows:

Please refer to the testimony of Richard A. Vail in docket UE 374, PacifiCorp's most recent general rate case. Mr. Vail's testimony details major transmission investments made by PacifiCorp from 2013 through 2020, and the rationale for PacifiCorp's request that these investments be included in Oregon rates. See, e.g., docket UE 374; PacifiCorp/1000, PacifiCorp/2800, and PacifiCorp/4200, and associated exhibits. In addition, please refer to Confidential Attachment NewSun 1.10, detailing recent, smaller additions to PacifiCorp's transmission system and the high-level rationale for their construction and inclusion in customer rates.

Confidential information is designated as Protected Information under the protective order in this proceeding and may only be disclosed to qualified persons as defined in that order.

REDACTED

Docket No. UE 374 Exhibit PAC/4202 Witness: Richard A. Vail

BEFORE THE PUBLIC UTILITY COMMISSION OF OREGON

PACIFICORP

REDACTED
Exhibit Accompanying Surrebuttal Testimony of Richard A. Vail

Description of Pro Forma Transmission Plant Additions Over \$500,000 (Total-Company)

August 2020

	In-Service	Previousl	у
Project Name	Date	Cost Estimate Addressed in	DR Project Description including explanation of system benefit and any cost overruns
Vantage Pomona Heights			
230kV Line	May-20		Addressed in Vail Direct (PAC/1000, Vail/35) and Surrebuttal (PAC/4200) Testimony.
			This category of projects represents system upgrades required to reliably serve customer requested new interconnections
			in California, Oregon, and Washington. Upgrades in this category are identified in accordance with NERC Reliability
		001100000	Standards, including FAC-002 and TPL-001-4, to maintain compliance with system performance requirements of the
PP Trans New Connect	Various	OPUC 226-1	interconnected transmission system.
Goshen-Sugarmill-Rigby			
161kV Transm Line	Nov-20		Addressed in Vail Direct (PAC/1000, Vail/38) and Surrebuttal (PAC/4200) Testimony.
			This category of projects represents system upgrades required to reliably serve customer generation interconnection
			requests on the PacifiCorp transmission system per the Open Access Transmission Tariff. This category pertains only to
			projects Idaho, Utah. and Wyoming with in-service dates planned in 2020. Upgrades in this category are identified in
			accordance with NERC Reliability Standards, including FAC-002 and TPL-001-4, to maintain compliance with system
TMP Generation			performance requirements of the interconnected transmission system.
Interconnection Projects			
East	Various	OPUC 226-1	See tab 2 for the projects with in-service dates planned in 2020 used to determine costs.
			These 2019 projects provide functional upgrades and asset replacements to transmission substations and lines in Utah,
			Wyoming, and Idaho. These projects will add or enhance an existing operational function and replace assets that have
Transmission Blankets	Various	OPUC 226-1	failed or deteriorated and are deemed a risk to public safety and/or reliability. This project involves the installation of a third 345/161 kW transformer at the Goshen substation located in southeast
			This project involves the installation of a third 345/161 kV transformer at the Goshen substation located in southeast
			Idaho. This project is needed in order to resolve a potential overloading issue at the existing Goshen 345/161 kV
			transformers. Load in the Goshen area has continued to increase and as the load continues to grow, the risk of overloading
			the two existing Goshen 345/161 kV transformers increases. The 2016 Goshen area studies indicated that by 2021, loss of
			either one of the Goshen 345/161 kV transformers can overload the remaining Goshen 345/161 kV transformer above its
Goshen #3 345/161 kV			emergency rating. Cost estimate included in rate case is for the installation of the third transformer being placed in-service
700 MVA Trfrmr Inst	Nov-20	OPUC 226-1	in 2020. A replacement spare transformer is being ordered but will be received outside the dates of this rate case.
			These blanket projects will fund projects to decrease risk of transmission equipment failure during the wildfire season,
			which is increasing in length every year. Modern relaying will enable line patrols to quickly locate and fix any problems,
			restoring service to customers faster. Fiber optic communications between substations in Fire High Concern Areas will
			improve the clearing times for protective relaying schemes, which will reduce the time the fault is active. New wildfire safe
Wildfire Mitigation - Trans	Various	OPUC 226-1	designs on the transmission system will improve the survivability of the lines in the event that a wildfire does occur.
Trianic Wingation Trans	Various	0, 00 220 1	<u>l</u>

	In-Service		Previously	
Project Name	Date	Cost Estimate	Addressed in DR	Project Description including explanation of system benefit and any cost overruns
				This project has experienced major delays in obtaining a conditional use permit and is now projected to be placed in service sometime mid-2021. There will be \$0.00 placed in service prior to 2021.
				This project will construct 9 miles of 138 kV transmission line with 795 ACSR conductor between Midway and Jordanelle substations. It will also construct a 138 kV three breaker ring bus at Midway substation, fiber optic communications between Silver Creek and Midway substations, and protection and control upgrades at all affected substations.
Jordanelle - Midway				Multiple outage scenarios on the 138 kV and 46 kV lines in the Summit and Wasatch County areas, and the outage of the Midway 75 MVA 138-46 kV transformer causes low voltage or voltage collapse conditions on the 138 kV and 46 kV systems in the area, which may result in load shedding. A 138 kV tie between Midway and Jordanelle substations mitigates this issue.
Construct 138 kV Line -	2021		OPUC 226-1	Please refer to the surrebuttal testimony of Ms. Shelley E. McCoy (PAC/4400)
				This category of projects represents system upgrades required to reliably serve customer requested new large load interconnections in Oregon. Upgrades in this category are identified in accordance with NERC Reliability Standards, including FAC-002 and TPL-001-4, to maintain compliance with system performance requirements of the interconnected transmission system.
Oregon New Large Load	5 20		00110 226 4	The specific projects that make up this category are Network Upgrade needed to serve a 60 MW Load Addition project. The customer intends to add an additional 220 MW of load between 2020 and 2022 that the proposed improvements will also
Network Upgrades	Dec-20		OPUC 226-1	be able to service. Addressed in Vail Surrebuttal (PAC/4200) Testimony. This project is to interconnect 240 megawatts of new wind generation to PacifiCorp's Frannie - Yellowtail 230 kilovolt transmission line approximately 14.2 miles north of the Frannie
Q0542 Pryor Mountain	Dec-20		OPUC 226-1	substation located in Carbon County, Montana. These blanket projects will fund functional upgrades and asset replacements to transmission substations and lines in Oregon, Washington, and Idaho. These projects replace assets that have deteriorated, or add efficiency improvements and/or enhance productivity functions of an asset. An example of this activity is as follows:
PP Trans	Various		OPUC 226-1; OPUC 745-2 2nd Supp CONF	A breaker is in excellent working condition, however, the required fault interrupting capability is not high enough. You replace the breaker with one that meets the requirements and because you are enhancing the required functions of the breaker the "Modernize and Upgrade" activity would be used.
				This category of projects represents system upgrades required on main grid transmission (115 kV and above) facilities located in Utah, Wyoming, or Idaho to reliably serve existing customers, including general load growth. Upgrades in this category are identified in accordance with NERC Reliability Standards, including MOD, PRC and TPL-001-4 categories, to maintain compliance with system performance requirements of the interconnected transmission system.
TMP Trans Main Grid East	Various		OPUC 226-1	All project that fits description with estimated in-service in 2020 but are under \$10m are rolled into this category. See tab 2 for projects included in this cost category.

Project Name	In-Service Date	Cost Estimate	Previously Addressed in DR	Project Description including explanation of system benefit and any cost overruns
Wildfire Mitigation Plan - CA T	Various		OPUC 226-1	This blanket project provides the means of allocating capital funds to mitigate operational risk within geographic regions that present the greatest risk of catastrophic wildfires. These investments are implemented consistent with the Company's 2020 Wildfire Mitigation Plan, including of 38 line miles of covered conductor, installation and commissioning of 31 system automation programs, replacement of 3 line miles of small diameter Cu conductor with aluminum stranded conductor, replacement of 189 in-service wooden poles with fiberglass for enhanced structural resilience, as well as evaluation of various pilot project results and continued implementation of enhanced inspection and correction programs.
TMP Gateway Projects	Various		OPUC 226-1	This 2019 blanket project provides the means of allocating capital funds for condemnation activities required on the Populus-Terminal 345 kV line placed in service in 2015. The settlement included the relocation of the line from customer's property to the adjacent Forest Service property.
TMP Transmission Major	14040		<u> </u>	This 2020 blanket project provides the means of allocating capital funds for improvements and reinforcements needed to support general load growth on transmission facilities located in Oregon, Washington, or California that are part of the subtransmission system.
Projects - PP	Various		OPUC 226-1	See tab 2 for the projects with in-service dates planned in 2020 included in this cost category.
TMP Trans Main Grid				This category of projects represents system upgrades required on main grid transmission (115 kV and above) facilities located in Oregon, Washington, or California to reliably serve existing customers, including general load growth. Upgrades in this category are identified in accordance with NERC Reliability Standards, including MOD, PRC and TPL-001-4 categories to maintain compliance with system performance requirements of the interconnected transmission system. All projects that fit the above description with estimated in-service in 2020, but are under \$10M, are rolled into this category. See tab 2 for projects included in this cost category.
West	Various		OPUC 226-1	This category of projects represents system upgrades required in Utah, Wyoming, or Idaho to reliably serve transmission network customer requested loads as specified by the network customers in their OATT required load and resource submittals. Upgrades in this category are identified in accordance with NERC Reliability Standards, including FAC-002 and TPL-001-4, to maintain compliance with system performance requirements of the interconnected transmission system.
TMP Trans Customer Generated East	Various		OPUC 226-1	See tab 2 for the projects with in-service dates planned in 2020 used to determine costs.
Replace Substation Switchgear, Breakers, Reclosers - UT	Various		OPUC 220-1	This 2020 blanket project will rebuild or replace existing transmission level substation switchgear, breakers, and reclosers in Utah when equipment has failed, deteriorated, or become obsolete in order to ensure properly functioning equipment.
Replace - Storm & Casualty - UT Trans	Various		OPUC 220-1	This 2020 blanket project will replace damaged transmission equipment in Utah due to a storm or external event (like a car hit pole).
TMP Trans Customer	Mariana		ODUC 220.4	This category of projects represents system upgrades required on main grid transmission (115 kV and above) facilities located in Oregon, Washington, or California to reliably serve existing customers, including general load growth. Upgrades in this category are identified in accordance with NERC Reliability Standards, including MOD, PRC and TPL-001-4 categories to maintain compliance with system performance requirements of the interconnected transmission system.
Generated East	Various		OPUC 220-1	See tab 2 for the projects with in-service dates planned in 2019 used to determine costs.

	In-Service		Previously	
Project Name	Date	Cost Estimate	Addressed in DR	Project Description including explanation of system benefit and any cost overruns
Oregon - Rplc-OH Trans-				This 2020 blanket project will replace transmission line assets other than poles in Oregon that have failed or deteriorated
Pole	Various		OPUC 220-1	and are deemed a risk to public safety and/or system reliability.
				This category of projects represents system upgrades required to reliably serve customer generation interconnection
				requests on the PacifiCorp transmission system in Oregon, Washington and California. Upgrades in this category are
				identified in accordance with NERC Reliability Standards, including FAC-002 and TPL-001-4, to maintain compliance with
				system performance requirements of the interconnected transmission system.
TMP Generation				
Interconnections West	Various		OPUC 220-1	See tab 2 for the projects used to determine costs.
				(Uncontested per Staff Response to PAC DR 73) The project will benefit our customers by maintaining the Huntington power plant by providing efficient and reliable electrical power. The replacement of the existing (40+) year old 2-2 GSUT with a new transformer will result in a reduced risk of an unscheduled outage at Huntington Plant. The project reduces the
				risk of failure of the existing 2-2 GSUT if it were replaced with a new one. The transformer is over 41 years old and the rate
U2 2-2 GSU Replacement	Oct-19		OPUC 220-1	of failure in a transformer increases with age.
BIA - Fort Hall Grace -				This project will renew the tribal authority permit for a portion of the Grace-Goshen transmission line. This permit is
Goshen	Jun-20		OPUC 220-1	required in order to continue the operation of this line.
Replace Overhead				This 2020 blanket project will replace transmission poles in Utah that have deteriorated and are deemed a risk to public
Transmission Poles - UT	Various		OPUC 220-1	safety and/or system reliability.
UO Spare GSU				(Uncontested per Staff Response to PAC DR 73) The project will benefit our customers by maintaining the Huntington power plant by providing efficient and reliable electrical power. Having a new universal spare will benefit PacifiCorp by reducing installation time (due to not having to manufacture bussing to tie into) in case of a GSUT failure. If the current spare GSUT is installed in an emergency, it will eventually need to be replaced, thus creating lost generation, restricted
Transformer	Dec-20		OPUC 220-1	loads and unnecessary costs to perform the equipment change twice.
				This 2019 blanket project provides the means of allocating capital funds for improvements and reinforcements needed to support general load growth on transmission facilities located in Oregon, Washington, or California that are part of the subtransmission system.
TMP Transmission Major				All project that fits description with estimated in-service in 2019 but are under \$10m are rolled into this category. See tab
Projects - PP	Various		OPUC 220-1	2 for projects behind cost estimate.
Replace Overhead	14.1045		0.001101	2 to project semila cost commute.
Transmission Lines - Other				This 2020 blanket project will replace transmission line assets other than poles in Utah that have failed or deteriorated and
- UT	Various		OPUC 220-1	are deemed a risk to public safety and/or system reliability.
				This 2020 blanket project provides the means of allocating capital funds for the final condemnation activities required on the Populus-Terminal 345 kV line placed in service in 2015. This The case involves a property owner who has contested valuation based on potential future mining and quarry activities and perceived profit potential from the area occupied by
TMP Gateway Projects	Various		OPUC 220-1	the project, and is still proceeding through the court. The Company anticipates resolution during the calendar year 2021.

Date Various	Cost Estimate	Addressed in DR	Project Description including explanation of system benefit and any cost overruns These 2019 projects will result in decreased risk of transmission equipment failure during the wildfire season, which is
Various			
		OPUC 220-1	increasing in length every year. Modern relaying will enable line patrols to quickly locate and fix any problems, restoring service to customers faster. Fiber optic communications between substations in Fire High Concern Areas will improve the clearing times for protective relaying schemes, which will reduce the time the fault is active. New wildfire safe designs on the transmission system will improve the survivability of the lines in the event that a wildfire does occur.
Various		OPUC 220-1	The linescope reliability projects are being performed to enhance system visibility on the transmission system in strategic locations, enabling rapid response to faulted lines, ultimately enabling accurate fault location and quicker sectionalizing and restoration of customers.
			This project will not be placed in service until 2021 or later. There will be \$0.00 placed in service prior to 2021. This project will relocate 2.5 miles of the Jim Bridger - Goshen 345kV transmission line out of a land slide area.
2021		OPUC 220-1	Please refer to the surrebuttal testimony of Ms. Shelley E. McCoy (PAC/4400).
Dec-20		OPUC 220-1	This project will allow for maintenance to be performed on either transformer without requiring an outage to the entire Pavant 46 kV system. This will increase reliability for customers served from the Pavant substation.
Various		OPUC 220-1	These projects are needed to maintain reliability of existing facilities by replacing deteriorated transmission line conductor and/or reinforcing existing conductor with armor rod. Damage has occurred mainly from Aeolian vibration so vibration dampeners are also installed.
Dec-20		OPUC 220-1	A spare transformer analysis identified a spare transformer deficiency (or gap) in the Delta-Wye portion of the installed 230-69 kV transformer fleet. A new 230-69 kV, Delta-Wye, 150-MVA spare transformer is being purchased to serve as a ready-to-use spare backing up the six (6) three-phase Delta-Wye transformers in-service. The spare will provide timely customer service restoration should failure occur.
Various		OPUC 220-1	(Uncontested per Staff Response to PAC DR 73) This project will fund the PacifiCorp portion of the replacement of wood structures with steel structures on the Idaho Power operated Borah to Midpoint #1 line. This will reduce the need for future priority 2 replacements as well as improve the durability of the line by improving its resistance to fires and severe weather conditions.
Various		OPUC 220-1	This 2020 blanket project will rebuild or replace transmission level substation transformers in Utah when equipment has failed, deteriorated, or become obsolete and is deemed a risk to public safety and/or system reliability. This blanket project provides the means of allocating capital funds to replace damaged equipment due to a storm or
Various		OPUC 220-1	external event (like a car hit pole).
Various		OPUC 220-1	This 2020 blanket project will rebuild or replace transmission level substation bushings, brown glass and other equipment in Idaho that have failed, deteriorated, or become obsolete and is deemed a risk to public safety and/or system reliability.
Various		OPUC 220-1	This blanket project provides the means of allocating capital funds to replace transmission line items other than poles that have deteriorated. Deteriorated Transmission cross arms, insulators, water passage culverts, easement access gates, are all examples of "other" items that fall into this category and are reported during annual field inspections.
	2021 Dec-20 Various Dec-20 Various Various Various	2021 Dec-20 Various Dec-20 Various Various Various Various	2021 OPUC 220-1 Dec-20 OPUC 220-1 Various OPUC 220-1

	In-Service		Previously	
Project Name	Date	Cost Estimate	Addressed in DR	Project Description including explanation of system benefit and any cost overruns
302 Spare GSU Replacement	Oct-19		OPUC 220-1	(Uncontested per Staff Response to PAC DR 73) The project will benefit our customers by maintaining reliability and ensure Hunter Plant can continue to provide efficient electrical power at full unit rating. The purchase of a new spare GSU will result in a lower risk of an extended load restriction in the event of a failure of one of the in-service transformers. If a spare GSU transformer is onsite, the estimated time frame to remove a failed transformer from service and install the spare is 10–14 days. The best case scenario to purchase a GSU replacement is 18 months. The project reduces the risk of an extended half load restriction due to a GSU failure of an in-service transformer.
BIA Camp Williams 4 Corners: BIA ROW Renewal - Ute Mtn Tribal	Apr-20		OPUC 220-1	This project will renew the tribal authority permit for a portion of the Camp Williams-Four Corners transmission line. This permit is critical to continued operation of the line and the ability to meet firm transmission obligations from Four Corners into Utah. This line is part of the WECC rated TOT 2B1 transmission path.
State Prison at Salt Lake City - 8 MW Load	Sep-20		OPUC 220-1	This project will provide the customer a 138 kV connection in order to serve their requested load. This will also provide property for a future Rocky Mountain Power owned distribution substation to serve other projected load growth in the area.
Sams Valley 500-230kV New Substation	Nov-20		OPUC 220-1	The Sams Valley 500-230kV project is being placed in service in separate sequences. This is for upgrades at Grants Pass substation to reinforce the 230kV transmission system and resolve NERC reliability standard issues.
BLM Camp Williams 4 Corners: ROW Renewal PL#99001	Feb-20		OPUC 220-1	This project will renew the BLM permit for a portion of the Camp Williams-Four Corners transmission line. This permit is critical to continued operation of the line and the ability to meet firm transmission obligations from Four Corners into Utah. This line is part of the WECC rated TOT 2B1 transmission path.
Replace Substation Bushings, Glass & Other - UT	Various		OPUC 220-1	This 2020 blanket project will rebuild or replace transmission level substation bushings, brown glass and other equipment in Utah that has failed, deteriorated, or become obsolete and is deemed a risk to public safety and/or system reliability.
				This category of projects represents system upgrades required on main grid transmission (115 kV and above) facilities located in Utah, Wyoming, or Idaho to reliably serve existing customers, including general load growth. Upgrades in this category are identified in accordance with NERC Reliability Standards, including MOD, PRC and TPL-001-4 categories, to maintain compliance with system performance requirements of the interconnected transmission system.
TMP Trans Main Grid East	Various		OPUC 220-1	All project that fits description with estimated in-service in 2019 but are under \$10m are rolled into this category. See tab 2 for projects included in this cost estimate.
Replace - Storm & Casualty - ID Trans	Various		OPUC 220-1	This 2020 blanket project will replace damaged transmission equipment in Idaho due to a storm or external event (like a car hit pole). The pro forma amount is based on historical performance for this cost category.
Purchase One (1) 230- 69kV 150 MVA 3 Phase	D - 20		ODUC 220.4	This is a second whose to Grid Berillon w. Bhore 4 , 220 (GOLA) Vision Brunchese was institutional of
Wye-Delta XFMR Replace Overhead	Dec-20		OPUC 220-1	This is a second phase to Grid Resiliency Phase 1 - 230/69kV Xfmr Purchase project discussed above. This 2020 blanket project will replace transmission poles in Idaho that have deteriorated and are deemed a risk to public
Transmission Poles - ID Replace Overhead	Various		OPUC 220-1	safety and/or system reliability.
Transmission Lines - Other - ID	Various		OPUC 220-1	This 2020 blanket project will replace transmission line assets other than poles in Idaho that have failed or deteriorated and are deemed a risk to public safety and/or system reliability.

	In-Service		Previously	
Project Name	Date	Cost Estimate	Addressed in DR	Project Description including explanation of system benefit and any cost overruns
				This 2020 blanket project will fund functional upgrades to transmission substations in Utah. An upgrade would be the
Upgrade Trans CB and				addition or enhancement to an existing operational function. For example, adding supervisory control and indication
Relays UT	Various		OPUC 220-1	(SCADA) to an existing substation to allow remote operation and monitoring would be considered a functional upgrade.
				A spare transformer analysis identified an aging spare transformer concern in the Delta-Wye portion of the installed 115-
Purchase One (1) 115-69				69 kV transformer fleet. A new 115-69 kV, Delta-Wye, 150-MVA spare transformer is being purchased to serve as a ready-
kV Wye-Delta 100 MVA 3				to-use spare backing up the two (2) three-phase Delta-Wye transformers in-service. The spare will provide timely
Phase XFMR Dedicated for				customer service restoration should failure occur.
Columbia	Dec-20		OPUC 220-1	
Naples 138-12.5 kV New				Transmission portion of new substation construction to address compliance with NERC Reliability Standards related to
Substation TPL	Aug-2020			unacceptable voltage deviation and low voltage issues.
				This project was mis-classified as a transmission level project. This is a distribution level project in the state of Utah and
				should be removed from this filing. This project will replace the existing regulators at Parowan Valley substation that are
				projected to overload due to area load growth.
Parowan Valley Reg				
Replacement	Dec-20			Please refer to the surrebuttal testimony of Ms. Shelley E. McCoy (PAC/4400).
				This 2020 blanket project will rebuild or replace existing transmission level substation switchgear, breakers, and reclosers
Oregon Trans- Rplc Sub-				in Oregon when equipment has failed, deteriorated, or become obsolete in order to ensure properly functioning
Swgr,Brk,Rec	various			equipment.
BLM - Antelope Bannock				This project will renew the BLM permit for a portion of the Antelope-Amps-Peterson Flat 230 kV transmission line. This
Pass Anaconda -	May-20			permit is required in order to continue the operation of this line.
Replace Overhead				This 2020 blanket project will replace transmission poles in Wyoming that have deteriorated and are deemed a risk to
Transmission Poles - WY	Various			public safety and/or system reliability.
Oregon Trans - Repl Sub -				This 2020 blanket project will rebuild or replace existing transmission level substation meters and relays in Oregon when
Mtrs &	various			equipment has failed, deteriorated, or become obsolete in order to ensure properly functioning equipment.
Oregon - Rplc- Trans				This 2020 blanket project will replace damaged transmission equipment in Oregon due to a storm or external event (like a
Strm&Cas	various			car hit pole).
				This 2020 blanket project will remove transmission utility assets in Utah that have been abandoned for some length of
Asset Removal - UT	Various			time.
Wildfire Mitigation Plan -				This 2020 blanket project provides the means of allocating capital funds to mitigate operational risk in Oregon that present
OR T	various			the greatest risk of catastrophic wildfires.
				This 2020 blanket project will fund functional upgrades to transmission substations in Wyoming. An upgrade would be the
Upgrade Trans CB and				addition or enhancement to an existing operational function. For example, adding supervisory control and indication
Relays WY	Various			(SCADA) to an existing substation to allow remote operation and monitoring would be considered a functional upgrade.
Replace Substation				This 2020 blanket project will rebuild or replace existing transmission level substation switchgear, breakers, and reclosers
Switchgear, Breakers,				in Wyoming when equipment has failed, deteriorated, or become obsolete in order to ensure properly functioning
Reclosers - WY	Various			equipment.

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Project Name	In-Service Date	Cost Estimate	Previously Addressed in DR	Project Description including explanation of system benefit and any sect everyons
Project Name	Date	Cost Estimate	Addressed III DR	Project Description including explanation of system benefit and any cost overruns
				This project was mis-classified as a transmission level project. This is a distribution level project in the state of Oregon and should be 100 percent assigned to Oregon from this filing. This project provides distribution service to a mixed use new
				customer load addition.
Block 216 Tower Service				customer load addition.
Request	Oct-2020			Places refer to the currebuttal tectimony of Mr. Challey F. McCov (DAC/4400)
nequest	OCI-2020			Please refer to the surrebuttal testimony of Ms. Shelley E. McCoy (PAC/4400)
Replace Substation Meters				This 2020 blanket project will rebuild or replace existing transmission level substation meters and relays in Utah when
and Relays - UT	Various			equipment has failed, deteriorated, or become obsolete in order to ensure properly functioning equipment.
Lassen Sub-New 69x115	various			equipment has failed, deteriorated, or become obsolete in order to crisare properly failed orning equipment.
kV sub to replace Mt				
Shasta Sub(Net 12.5 MVA)				
T	Jun-2020			Addressed in Vail Surrebuttal (PAC/4200) Testimony.
· · · · · · · · · · · · · · · · · · ·	5411 2525			The content of the co
Targeted reliability				This 2020 blanket project will rebuild or replace existing transmission facilities, or install additional transmission facilities or
Improvement, Trans - UT	Various			functionality in Utah in order to improve customer reliability within a targeted area.
Replace Overhead				,
Transmission Lines - Other				This 2020 blanket project will replace transmission line assets other than poles in Wyoming that have failed or deteriorated
- WY	Various			and are deemed a risk to public safety and/or system reliability.
				This 2020 blanket project will fund functional upgrades to transmission substations in Idaho. An upgrade would be the
Upgrade Trans CB and				addition or enhancement to an existing operational function. For example, adding supervisory control and indication
Relays ID	Various			(SCADA) to an existing substation to allow remote operation and monitoring would be considered a functional upgrade.
ı				This category of projects represents system upgrades required to reliably serve customer generation interconnection
				requests on the PacifiCorp transmission system per the Open Access Transmission Tariff. This category pertains only to
				projects Oregon, Washington, and California with in-service dates planned in 2020. Upgrades in this category are identified
TMP Generation				in accordance with NERC Reliability Standards, including FAC-002 and TPL-001-4, to maintain compliance with system
Interconnections West	Various			performance requirements of the interconnected transmission system.
Replace - Storm &				This 2020 blanket project will replace damaged transmission equipment in Wyoming due to a storm or external event (like
Casualty - WY Trans	Various			a car hit pole).
				This 2020 blanket project provides the means of allocating capital funds to replace transmission poles in Washington that
Wash - Rplc-OH Trans-Pole	various			have deteriorated.
				This project will replace the 1971 vintage, 230 kV circuit breaker at Naughton substation due to the ongoing failure of
SF6 - Replace Naughton				individual components and high rate of leaking SF6 gas. This will reduce SF6 emissions as well as reduce the risk of breaker
CB 235	5/1/2020			failure that would result in added reliability risk.
				This project will replace the 1969 vintage, 230 kV circuit breaker at Antelope substation due to the ongoing failure of
SF6 - Replace Antelope CB				individual components and high rate of leaking SF6 gas. This will reduce SF6 emissions as well as reduce the risk of breaker
201 - shared IPC	10/1/2020			failure that would result in added reliability risk.
				This 2020 blanket project will rebuild or replace existing transmission facilities, or install additional transmission facilities of functionality in California in order to improve customer reliability within a targeted area.
Calif - Transmission				This 2020 blanket project will rebuild or replace existing transmission facilities, or install additional transmission facilities or
Improvements	various			functionality in California in order to improve customer reliability within a targeted area.

	In-Service		Previously	
Project Name	Date	Cost Estimate	Addressed in DR	Project Description including explanation of system benefit and any cost overruns
Replace Substation Meters				This 2020 blanket project will rebuild or replace existing transmission level substation meters and relays in Idaho when
and Relays - ID	Various			equipment has failed, deteriorated, or become obsolete in order to ensure properly functioning equipment.
Replace Substation				
Switchgear, Breakers,				This 2020 blanket project will rebuild or replace existing transmission level substation switchgear, breakers, and reclosers
Reclosers - ID	Various			in Idaho when equipment has failed, deteriorated, or become obsolete in order to ensure properly functioning equipment.
System Reinforcement -				This 2020 blanket project will fund transmission level system reinforcement projects in Utah in order to maintain
Local Transmission				acceptable reliability for the growing load. These projects typically consist of capacity increase projects such as replacing
Projects	Various			substation class transformers with larger ones.
Replace Substation				This 2020 blanket project will rebuild or replace transmission level substation bushings, brown glass and other equipment
Bushings, Glass & Other -				in Wyoming that have failed, deteriorated, or become obsolete and is deemed a risk to public safety and/or system
WY	Various			reliability.
				Of the 110 line items that make up the list of projects under \$500k, 98 are program level funding which is based on historical experience. The Company forecasts a level of capital associated with unexpected events and smaller
Projects Less Than \$500				maintenance that requires capital replacement. The remaining line items are individual small projects or close-out costs or
Thousand	Various			projects that enter service prior to the test period covered in this rate case.
Transmission Five Year				
Average Removals				

		Planned Cost	
Category	Project Name	(\$million)	Project Description
TMP Gen Interconnection East		\$ 21.4	
	Q589 Sigurd Solar, LLC		This project interconnects 80 MW of new generation to PacifiCorp's Sigurd 230 kV substation located in Sevier County, Utah. The project is a FERC-jurisdictional interconnection and per the OATT PacifiCorp must accommodate the customer request. The network upgrade work includes adding a new breaker, dead-end, switches, and other protection and control equipment at Sigurd substation. As well as updating communications at Salt Lake Control Center.
	Q0631 Milford Solar 1, LLC - Interconnection		This project interconnects 99 MW of new generation to PacifiCorp's Hickory 345 kV substation located in Beaver County, Utah. The project is a FERC-jurisdictional interconnection and per the OATT PacifiCorp must accommodate the customer request. Network upgrade work includes expanding Hickory substation and adding a new 345 kV position and related communication/relay equipment.
	Q737 Cove Mountain Solar 2, LLC		This project interconnects 122 MW of new generation to PacifiCorp's Enterprise Valley substation 138 kV bus located in Washington County, Utah. The project is a FERC-jurisdictional interconnection and per the OATT PacifiCorp must accommodate the customer request. The network upgrade work includes new relaying and communications equipment at the Enterprise Valley substation. Communications and relaying to be installed at the Richfield service center and Holt, West Cedar, Clover, and Sigurd substations to support a Remedial Action Scheme (RAS).
	Q754 Steel Solar		The project interconnects 80 MW of new generation to PacifiCorp's 138 kV line east of Washakie substation located in Box Elder County, Utah. The project is a FERC-jurisdictional interconnection and per the OATT PacifiCorp must accommodate the customer request. The Network upgrade work for this project includes installation of a new three breaker ring bus substation for the Point of Interconnection (POI), including all appurtenant metering and communication equipment and the loop in/out of the Wheelon-Nucor 138 kV transmission line at the new POI substation.
	Q764 Graphite Solar		The project interconnect 80 MW of new generation to PacifiCorp's Mathington 138 kV substation located in Carbon County, Utah. The project is a FERC-jurisdictional interconnection and per the OATT PacifiCorp must accommodate the customer request. The network upgrade work includes: new RAS panel at Carbon substation; a new bay and RAS master at Mathington substation; and a new reactor and RAS panel at Spanish Fork substation.
	Q0781 Elektron Solar Program level funding		This project interconnects 80 MW of new generation to PacifiCorp's Craner Flat 138 kV substation located in Tooele County, Utah. The project is a FERC-jurisdictional interconnection and per the OATT PacifiCorp must accommodate the customer request. Network upgrade work includes: a new circuit breaker at Craner Flat substation to tap to Homestead Knoll – Horseshoe transmission line; and modification of communications equipment and settings at Homestead and Horseshoe substations.
TMP Transmission Major Projects - PP	3	\$ 7.7	

	Corvallis 115kV Loop - Reconductor 1 mile Fry - Circle Blvd		This project will reconductor a 1.1 mile section of the Fry – Circle Boulevard 115 kV line and replace the getaway conductor at Circle Boulevard substation. This project is needed to increase capacity on the Fry to Circle end of the 115 kV Corvallis loop and eliminates the need to shed up to 13 MW of load for an outage of the Hazelwood – Circle Tap 115 kV line during heavy summer loading.
	Dry Gulch Substation - Replace 115/69kV Transformer		This project replaces the existing 115/69 kV, 20 megavolt ampere (MVA) transformer, T-2210, with new 115/69 kV, 50 MVA transformer with on-load tap changer (LTC) at Dry Gulch substation located in Eastern Washington near Clarkston. Installation of a new 115/69 kV transformer at Dry Gulch with the ability to automatically control voltage on the 69 kV system will allow the 69 kV line to operate in a normal open configuration, with a sectionalizing point in the middle of the line. This will resolve a North American Electric Reliability Corporation (NERC) transmission planning (TPL) deficiency for a bus fault at the substation that results in low voltages. It will mitigate overloads for outages of heavily loaded parallel main grid lines. Also, by sectionalizing the line, customer outage exposure will be reduced.
	Yreka Sub 115/69 kV Tx addition - Install		This project will install a new 115/69 kV, 30/40/50 MVA LTC transformer at Yreka substation, relocate existing circuit breaker 3G85 to 69 kV breaker bay, and reroute Line 47 within Yreka substation so that 69 kV wire bus does not pass above new transformer bay. Transmission voltage in the Scott Valley is projected to fall below the 0.90 per unit guideline limit at summer peak during normal system operation, beyond the range of distribution substation regulators to maintain customer voltage within American National Standards Institute (ANSI) limits. The addition of an LTC transformer at Yreka will improve control of the 69 kV system voltage and will allow the use of load drop compensation feature to further improve the Scott Valley transmission voltage profile over the long term.
TMP Trans Main Grid East		\$ 12.2	
	Siphon Tap - Pingree Junction 138 kV Reconductor Spanish Fork 345/138 Transformer Upgrade TPL		This project reconductored the 8.9-mile-long Siphon Tap to Pingree 138 kV line section of Idaho Power Company's (IPC) Don to Pingree to Blackfoot line, located in eastern Idaho. A construction agreement was signed with IPC outlining that all of the work for this project will be performed by IPC. IPC will own the completed project and all associated equipment. PacifiCorp will fund 100 percent of the actual project costs as agreed in the construction agreement. Results of the NERC TPL-001-4 Assessment, identified that the loss of the Goshen 345 kV source can cause the Don – Pingree 138 kV line to load up to 220 MVA. Thus, in order to eliminate the overload, preemptive load shedding of up to 150 MW would have been required in the Goshen area. By reconductoring the Don – Pingree line the rating will increase to at least 191.2 MVA continuous and emergency, and will reduce the preemptive load shedding requirement up to 65 MW. This project upgrades the existing Spanish Fork substation transformer #3, installs backup bus differential relays, and replaces jumpers on the Spanish Fork – Tanner 138 kV line The project, based on the NERC TPL-001-4 and the Utah Valley 10-year study, will resolve thermal overload issues, eliminate voltage issues, and eliminate risk of load shedding or generation curtailment identified as NERC TPL-001-4 Category P1, P2, P3 and P6 issues impacting the system.
	TPL Backup Bus Differential Relays		Program level funding to mitigate NERC TPL-001-4 Category P5-5 contingency events for a failure of the relay to clear a bus fault. The backup bus differential relays monitors for bus faults and initiate tripping of circuit breakers thereby providing backup protection for the failure of the primary bus differential relays to operate. The failure of a bus differential relay during system peak load conditions could result in NERC TPL-001-4 performance violations resulting from thermal overloads or low voltage issues in the surrounding network.

TPL Overdutied Circuit Breaker Replacements	Program level funding to replace overdutied circuit breakers with higher interrupt capability breakers. The failure of overdutied breakers during system peak load conditions could result in NERC TPL-001-4 deficiencies resulting from thermal overloads or low voltage issues in the surrounding area.
\$	7.1
Hazelwood Sub- Expand Yard & Install Ring Bus	Treasureton 138 kV Sub Cap Bank Backup Protection (\$0.1 million) - This project installs backup relays for two 49.5-MVAr capacitor banks providing backup protection for the failure of the primary relays at Treasureton 138 kV substation located in Preston, Idaho. The projects, based on the TPL-001-4 Category P5-4 analysis, which is a delayed fault clearing due to the failure of a non-redundant relay, will mitigate the issues impacting the system. Operating procedures cannot be implemented to mitigate the risk of P5-4 contingency events from occurring.
Lone Pine Circuit Breaker Replacement	This project replaces four 115 kV circuit breakers with non-oil-filled units rated for 40,000 Amp RMS fault current capability to withstand and interrupt fault current at Lone Pine substation in Medford, Oregon. This project will resolve NERC Standard TPL-001-4 requirements that short circuit current interrupting ratings of circuit breakers be adequate to interrupt the available short circuit current. The momentary and interrupting capabilities of the existing 115 kV circuit breakers are not adequate to withstand the available fault current since the energization of Whetstone 230-115 kV substation.
Meridian RAS Expansion	This project expands the existing Meridian RAS to cover three additional N-1-1 contingencies on the southern Oregon 500 kV system and trip additional load. The proposed RAS expansion will ensure compliance with the NERC PRC-014 Reliability Standard, Western Electricity Coordinating Council (WECC) PRC-(012-014)-WECC-CRT-2 Regional Criterion and NERC TPL-001-4 Reliability Standard. In addition, expanding the RAS will avoid relying on the Southern Oregon under Voltage Load Shedding scheme as the primary mitigation for double contingencies on the 500 kV system.
d	
\$	6.9
Q2469 PacifiCorp ESM	This project is due to a PacifiCorp's energy supply management (ESM) request on PacifiCorp's Open Access, Same-time Information System (OASIS) for Designated Network Resource (DNR) status. The Construction Agreement was executed between PacifiCorp, on behalf of its merchant function (ESM), and PacifiCorp, on behalf of its transmission function on December 20, 2018. The project is associated with Generation Interconnection queue request Q0631. The network upgrade work includes: development and installation of new relay settings for the Spanish Fork – Timp transmission line at Spanish Fork substation, installation of new fiber and the decommissioning of the Spanish Fork – Lake Mountain microwave link; installation of a new 138 kV circuit breaker (and associated switches) at Timp substation; reconductoring of approximately 5.23 miles of the Spanish Fork- Timp transmission line; and installation of fiber in the shield wire position from Timp to Spanish Fork substation. Under the OATT, PacifiCorp is required to plan, construct, operate and maintain its transmission system in order to provide its network customers service over the transmission provider's transmission system.
	Replacements Hazelwood Sub- Expand Yard & Install Ring Bus Lone Pine Circuit Breaker Replacement Meridian RAS Expansion \$ \$

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	Q155 UAMPS		This project is in response to a transmission service request from UAMPS pursuant to its Transmission Service and Operating Agreement for a new point of delivery. The scope consists of constructing a new 138 kV substation with four circuit breakers, switches, etc., looping the Jordanelle – Midway 138 kV line in and out of the substation and two 138 kV delivery connections to UAMPS customer. Under the OATT, PacifiCorp is required to plan, construct, operate and maintain its transmission system in order to provide its network customers service over the transmission provider's transmission system.
TMP Trans Customer Generated			
East- 2019		\$ 4.	3
	Bull River to Carter Substation 138 kV		This project was required for increased load service for a UAMPS network customer. The project is to re-
	Conv - Trans		build 2.3 miles of the Lehi Bull River tap to Saratoga tap 46 kV line to 138 kV line.
	Program level funding		The close-out of several projects placed into service late 2018 and early 2019.
TMP Generation			
Interconnections West			
TMP Transmission Major	Q729 Airport Solar, LLC - Airport Solar		This project interconnects a total of 47.25 MW of new generation to PacifiCorp's Chiloquin-Alturas 115 kV line at 42.178563°N, 120.357580°W located in Lake County, Oregon. The project is a FERC-jurisdictional interconnection and per the OATT PacifiCorp must accommodate the customer request. The Network upgrade work for this project includes: construction of a new 115 kV three-breaker ring bus substation.
Projects - PP		\$ 2.	6
	NE Portland Trans Upgrade Program level funding		This project addressed electrical network deficiencies required to improve reliability within Northeast Portland. This project is a systemic solution to the operational and contingency related network issues in the Portland transmission and substation system. The dollars in 2019 were for the last phase of the project which was the installation of a second transformer at Albina substation. The close-out of several projects placed into service late 2018 and early 2019.
TMP Trans Main Grid East			
	90th South Bus Tie Breaker		The project, based on the 2017 TPL Assessment, identified that a fault on the 90th South 138 kV bus tie breaker results in a loss of the entire 90th South 138 kV substation. Once the project is completed, loss of the entire 90th South 138 kV substation will be prevented. Thermal overloads on the following 138 kV line segments will be resolved: Lone Peak – Lone Peak Tap, Travers Mtn. – South Mtn. South Tap, and South Mtn. South Tap – South Mountain. Low voltages on the 106th South, 108th South, Quarry, Dimple Dell and Dumas substations will not occur, and overloading of the Camp Williams transformer as seen in the 2022 TPL case will be prevented.

UM 2032 / PacifiCorp January 20, 2021 NewSun Information Request 1.11

NewSun Information Request 1.11

Please list all QF-funded network upgrades that did not result in any benefit to the transmission system, such benefits to include, but not be limited to, increased load serving capability, enhanced reliability, improved transfer capability within the existing system, or relief of existing congestion on the transmission system?

Response to NewSun Information Request 1.11

PacifiCorp objects to this data request because the request is overly broad and unduly burdensome to the extent it asks PacifiCorp to analyze all qualifying facility (QF) funded Network Upgrades going back to 2005. Moreover, the phrase "any benefits to the transmission system" is vague and ambiguous. The term "benefits" is vague and has not been defined. Please refer to Joint Utilities/300, Wilding-Macfarlane-Williams/18-19. Please also refer to the Public Utility Commission of Oregon (OPUC) staff's response to PGE Data Request 05 (The Commission has never defined the term system-wide "benefits" as it applies to Network Upgrades incurred to interconnect QFs.).

UM 2032 / PacifiCorp March 5, 2021 NewSun Information Request 1.11 – 1st Supplemental

NewSun Information Request 1.11

Please list all QF-funded network upgrades that did not result in any benefit to the transmission system, such benefits to include, but not be limited to, increased load serving capability, enhanced reliability, improved transfer capability within the existing system, or relief of existing congestion on the transmission system?

1st Supplemental Response to NewSun Information Request 1.11

In further support of the Company's response to NewSun Information Request 1.11 dated January 20, 2021, the Company responds further as follows:

PacifiCorp reiterates its objections to this request. Moreover, the data request relates to issues outside the scope of Phase 1 of this proceeding, and that may be addressed in Phase 2. Notwithstanding and without waiving its objections, the Company responds as follows:

Any qualifying facility (QF) funded network upgrade would be driven solely by a QF's interconnection and designed only as needed and necessary to interconnect the QF.

NewSun Information Request 1.19

Regarding PacifiCorp's Ochoco to Corral transmission line and associated upgrades to PacifiCorp's system and substations, and PacifiCorp's load service in the Prineville area, please provide:

- (a) Where PacifiCorp identified the need for the upgrades (e.g., load growth, interconnection request, transmission request, or other),
- (b) How the upgrades were funded (e.g., utility funded, queue number funded, other),
- (c) The existing load and forecast load upon which PacifiCorp relied in justifying the upgrade, including the MVa rating of the loads that triggered the upgrades, including the dates of the associated load interconnection requests, the load initial and current projected on-line dates, and the status of each load service,
- (d) The cost of the upgrades,
- (e) How the upgrades were funded (e.g., utility funded, queue number funded, other),
- (f) Whether the upgrade were included in rate base or whether PacifiCorp intends to include it in rate base,
- (g) If the upgrades were included in rate base, the rate of return earned on the upgrades,
- (h) Describe how PacifiCorp serves its load in the Prineville area, including to what extent PacifiCorp relies on contiguous transmission from other areas of the PacifiCorp system,
- (i) Confirm whether the Prineville service area and Bend and Redmond service areas are electrically contiguous for PacifiCorp, and what the transfer capacity is within PacifiCorp's system in the area, as well as what the transfer capacity and monthly average and peak energy service from BPA at each point of service from BPA in the area, including Pilot Butte and Ponderosa substation,
- (j) Describe what long term rights PacifiCorp has on the California-Oregon Intertie (aka the COI aka the AC Intertie) and how PacifiCorp uses these rights and other short term procurement via the COI to serve Prineville area load,
- (k) Provide a comparison for the Prineville area between when interconnections and loads were requested, including comparative timing, along with the available avoided cost rates at the time of each request,

UM 2032 / PacifiCorp January 20, 2021 NewSun Information Request 1.19

- (1) Provide a summary of the power contract rates for facilities constructed or contracted to be constructed in the Prineville area, whether those facilities were ER or NR, what the likely network upgrades would have been for any ER facility that was (or is being) constructed if it had been required to be NR instead. Compare the PPA prices for these facilities at the time of contracting with the avoided cost rates available to the QFs which sought interconnections and PPAs in this area,
- (m) Please provide PacifiCorp's analysis based on the information in (k) and (l) as to whether the prospective QFs in its interconnection queue and/or otherwise seeking PPAs from PacifiCorp would have likely been economically viable based on these numbers were such facilities allowed ER interconnections and been allowed refundability of network upgrades. How does this compare to the number of actual facilities for which interconnection was requested in the Prineville area system (i.e. on lines directly connected to Ponderosa substation)? Please provide a total of all calculated revenues which would have been associated with any facilities which would have reasonably been likely to be economically viable per prior question; please make such calculations based on estimated facility energy production that would have resulted during the term of the resultant PPA using avoided cost pricing that would have been available at the time, and
- (n) Provide copies of all correspondence, load service studies, upgrades requested, and upgrades implemented, including associated cost estimates and who paid for those upgrades, associated with PacifiCorp's service of the Prineville actual and prospective loads, particularly at Ponderosa substation, including a summary of all related lobbying efforts, contacts with BPA executive management, and contact with other elected officials, including the governor's office, Senator Merkely, Senator Widen, and Congressman Walden, and any related requests made for support or action by these officials related to load service in the Prineville area and the justifications for these requests. Please summarize the comparative timing of these upgrades relative to the PacifiCorp load queue requests and loads in service, associated capacities, and a comparison of any differences in how generation interconnection studies for the area treated load requests with respect to power flow studies and justification of network upgrades related to service of these load requests, whether such upgrades where performed by PacifiCorp or BPA.

Response to NewSun Information Request 1.19

PacifiCorp objects to this data request because the information sought is not reasonably calculated to lead to the discovery of admissible evidence in this docket, overly broad and unduly burdensome.

NewSun Information Request 1.19

Regarding PacifiCorp's Ochoco to Corral transmission line and associated upgrades to PacifiCorp's system and substations, and PacifiCorp's load service in the Prineville area, please provide:

- (a) Where PacifiCorp identified the need for the upgrades (e.g., load growth, interconnection request, transmission request, or other),
- (b) How the upgrades were funded (e.g., utility funded, queue number funded, other),
- (c) The existing load and forecast load upon which PacifiCorp relied in justifying the upgrade, including the MVa rating of the loads that triggered the upgrades, including the dates of the associated load interconnection requests, the load initial and current projected on-line dates, and the status of each load service,
- (d) The cost of the upgrades,
- (e) How the upgrades were funded (e.g., utility funded, queue number funded, other),
- (f) Whether the upgrade were included in rate base or whether PacifiCorp intends to include it in rate base,
- (g) If the upgrades were included in rate base, the rate of return earned on the upgrades,
- (h) Describe how PacifiCorp serves its load in the Prineville area, including to what extent PacifiCorp relies on contiguous transmission from other areas of the PacifiCorp system,
- (i) Confirm whether the Prineville service area and Bend and Redmond service areas are electrically contiguous for PacifiCorp, and what the transfer capacity is within PacifiCorp's system in the area, as well as what the transfer capacity and monthly average and peak energy service from BPA at each point of service from BPA in the area, including Pilot Butte and Ponderosa substation,
- (j) Describe what long term rights PacifiCorp has on the California-Oregon Intertie (aka the COI aka the AC Intertie) and how PacifiCorp uses these rights and other short term procurement via the COI to serve Prineville area load,
- (k) Provide a comparison for the Prineville area between when interconnections and loads were requested, including comparative timing, along with the available avoided cost rates at the time of each request,

- (l) Provide a summary of the power contract rates for facilities constructed or contracted to be constructed in the Prineville area, whether those facilities were ER or NR, what the likely network upgrades would have been for any ER facility that was (or is being) constructed if it had been required to be NR instead. Compare the PPA prices for these facilities at the time of contracting with the avoided cost rates available to the QFs which sought interconnections and PPAs in this area,
- (m) Please provide PacifiCorp's analysis based on the information in (k) and (l) as to whether the prospective QFs in its interconnection queue and/or otherwise seeking PPAs from PacifiCorp would have likely been economically viable based on these numbers were such facilities allowed ER interconnections and been allowed refundability of network upgrades. How does this compare to the number of actual facilities for which interconnection was requested in the Prineville area system (i.e. on lines directly connected to Ponderosa substation)? Please provide a total of all calculated revenues which would have been associated with any facilities which would have reasonably been likely to be economically viable per prior question; please make such calculations based on estimated facility energy production that would have resulted during the term of the resultant PPA using avoided cost pricing that would have been available at the time, and
- (n) Provide copies of all correspondence, load service studies, upgrades requested, and upgrades implemented, including associated cost estimates and who paid for those upgrades, associated with PacifiCorp's service of the Prineville actual and prospective loads, particularly at Ponderosa substation, including a summary of all related lobbying efforts, contacts with BPA executive management, and contact with other elected officials, including the governor's office, Senator Merkely, Senator Widen, and Congressman Walden, and any related requests made for support or action by these officials related to load service in the Prineville area and the justifications for these requests. Please summarize the comparative timing of these upgrades relative to the PacifiCorp load queue requests and loads in service, associated capacities, and a comparison of any differences in how generation interconnection studies for the area treated load requests with respect to power flow studies and justification of network upgrades related to service of these load requests, whether such upgrades where performed by PacifiCorp or BPA.

1st Supplemental Response to NewSun Information Request 1.19

In further support of the Company's response to NewSun Information Request 1.19 dated January 20, 2021, the Company responds further as follows:

PacifiCorp reiterates its objections to this request. To the extent NewSun has identified this as a request seeking to understand the types of transmission system upgrades constructed by utilities and the rationale for such construction, notwithstanding and without waiving its objections, the Company responds as follows:

UM 2032 / PacifiCorp March 5, 2021 NewSun Information Request 1.19 – 1st Supplemental

Please refer to the Company's 1st Supplemental response to NewSun Information Request 1.10.

NEWSUN DATA REQUEST NO. 8:

For each network upgrade constructed since January 1, 2014, please provide:

- a. The cost of the network upgrade,
- b. Where Idaho Power first identified the need for the network upgrade (e.g., load growth, interconnection request, transmission request, integrated resource plan, or other).
- c. How the network upgrade was funded (e.g., utility funded, queue number funded, other).
- d. Whether the network upgrade was included in rate base or whether Idaho Power intends to include it in rate base.
- e. If the network upgrade was included in rate base, the rate of return earned on the network upgrade,
- f. The incremental transmission operations resulting from the network upgrade (e.g., increased throughput, increased load serving capability, enhanced reliability, improved transfer capability within the existing system, relief of existing congestion on the transmission system, or others),
- g. The net increase or decrease in transmission customer rates that resulted from the network upgrade

IDAHO POWER COMPANY'S RESPONSE TO NEWSUN DATA REQUEST NO. 8:

Idaho Power objects that this request is overly broad and unduly burdensome. Moreover, part (f) is vague and ambiguous. It is not clear what "incremental transmission operations resulting from the network upgrade" refers to. Subject to and without waiving the foregoing objection the Company provides the following response:

- a. Information regarding network upgrades identified in interconnection studies is already available in response to Staff Data Request No. 12 and others in this docket.
- b. Idaho Power engages in robust and comprehensive planning processes through which economic transmission upgrades are identified. The collective set of planning processes may involve a series of different study requirements, collectively, those requirements are comprehensive and systematic, and cover the range of transmission system investment decisions made by the utility. For example, Idaho Power's integrated resource planning (IRP) group engages in least-cost, least-risk planning in order to evaluate the best way to meet the load needs of utility customers, which may include consideration of cost-effective transmission system investment estimates associated with supply options—estimates that are supplied by the utility's transmission function and supported by regular, extensive study work performed to identify investments needed for reliability.
- c. See a) above
- d. To the extent network upgrades were paid for Idaho Power, Idaho Power will seek to include them in rate base. If network upgrades are paid for by a third party, they are not included.
- e. Idaho Power's currently authorized rate of return in Oregon is 7.757 percent, established in its most recent Oregon general rate case in 2012

Additional information on network upgrades can be found in:

- The Excel file included as an attachment to this data request
- Idaho Power's FERC Form 1 filed with the Oregon Public Utility Commission annually

•	Schedule 10 to our Transmission Revenue Requirement posting, which is available on our Public OASIS site under the IPCO Transmission Rate folder, in Excel files dating back a number of years with the most recent file titled "2020-10-01 to 2021-09-30"

NEWSUN DATA REQUEST NO. 8:

For each network upgrade constructed since January 1, 2014, please provide:

- a. The cost of the network upgrade,
- b. Where Idaho Power first identified the need for the network upgrade (e.g., load growth, interconnection request, transmission request, integrated resource plan, or other).
- c. How the network upgrade was funded (e.g., utility funded, queue number funded, other).
- d. Whether the network upgrade was included in rate base or whether Idaho Power intends to include it in rate base.
- e. If the network upgrade was included in rate base, the rate of return earned on the network upgrade,
- f. The incremental transmission operations resulting from the network upgrade (e.g., increased throughput, increased load serving capability, enhanced reliability, improved transfer capability within the existing system, relief of existing congestion on the transmission system, or others),
- g. The net increase or decrease in transmission customer rates that resulted from the network upgrade

<u>IDAHO POWER COMPANY'S SUPPLEMENTAL RESPONSE TO NEWSUN DATA REQUEST NO. 8</u>:

f) After conferral with NewSun, Idaho Power understands that NewSun's requests were intended to encompass upgrades to the transmission system more broadly—not just Network Upgrades associated with interconnection or transmission service, as that term has been defined by FERC and used by the Commission and parties to this proceeding. Specifically, Idaho Power understands that NewSun seeks information regarding major transmission system upgrades Idaho Power has completed, the cost of the upgrade, and the reason for the upgrade. As specific examples of the types of projects it is interested in, NewSun mentioned constructing a new transmission line, reconductoring a transmission line, constructing a new substation, and adding breakers, disconnects, or communications equipment.

Please see the attached Excel file for a list of Oregon-sited transmission system projects (other than projects associated with QFs and other PPAs) greater than \$250,000 that Idaho Power has completed since 2014, along with the cost of and the reason for each project. The Excel spreadsheet attached to Idaho Power's initial response to this data request listed all QF- and PPA-related network upgrades.

2014 Replaced Lime G61A 69kV power circuit breaker 2014 Capitalized maintenance associated with the Vale - Unity 69kV line 2014 Capitalized maintenance associated with the Vale - Unity 69kV line 2014 Reconductor of the Oxbow - Pallette 230kV line 2014 Reconductor of the Oxbow - Pallette 230kV line 2015 Replacement of fire damaged structures on Quartz to Ontario 138kV line 2015 Capitalized maintenance on GEMM-INVY 69kV line 2015 Replacement of fire damaged structures on Quartz to Ontario 138kV line 2015 Replacement of fire damaged structures on Dearwork of Valey 69kV line 2015 Replacement of fire damaged structures on Brownleet o Quartz Junction 230kV line 2016 Replaized maintenance on Ontario to Quartz 13kV line 2016 Capitalized maintenance on Ontario to Quartz 13kV line 2016 Capitalized maintenance on Ontario to Quartz 13kV line 2016 Capitalized maintenance on Brownlee to Quartz 230kV line. 2016 Capitalized maintenance on Brownlee to Quartz 230kV line. 2016 Repairs of Ontario to Hells Caryon 69kV line. 2016 Repairs of Pine Creek to Hells Caryon 69kV line. 2017 Replacement of Oxbow switchyard circuit breakers. 2018 Replacement of Oxbow switchyard circuit breakers. 2017 Replacement of Oxbow switchyard circuit breakers. 2018 Replacement of Oxbow switchyard circuit breakers and line protection systems. 2018 Replacement of Oxbow switchyard circuit breakers and line protection systems. 2018 Replacement of Oxbow switchyard circuit breakers and line protection systems. 2019 Replacement of Oxbow switchyard circuit breakers and line p	Year	Description	Amount	Category
2014 Reconductor of the Oxbow - Pallette 230kV line \$ 1,863,165,72 60 Ground Clearance Ground Gro	2014	Replaced Lime 061A 69kV power circuit breaker	\$ 280,397.61	Aging Infrastructure Replacement
Reconductor of the Oxbow - Pallette 230kV line \$ 1,883,166,74 Ground Clearance	2014	Capitalized maintenance associated with the Vale - Unity 69kV line	\$ 434,844.18	Maintenance
Rebuild of Brownlee - Halfway 69kV line	2014	Capitalized maintenanced associated with the Gem - Jordan Valley 69kV line	\$ 318,972.96	Maintenance
2015 Replacement of Fire damaged structures on Quartz to Ontario 138kV line \$25,361,361,300 Maintenance/Aging Infrastructure 2015 Replacement of fire damaged structures on Brownlee to Quartz Junction 230kV line \$741,640,37 Maintenance/Aging Infrastructure 2016 Replacement of Structures on Gement of Ordan Valley 69kV line \$73,466,300 Replacement of Fire Damaged Structures 2016 Replacement of Gried damaged structures on Brownlee to Quartz Junction 230kV line \$73,466,300 Replacement of Fire Damaged Structures 2016 Replaited maintenance on Ontario to Quartz 138kV line \$2,665,693,500 Maintenance/Aging Infrastructure 2016 Replaitized maintenance on Brownlee to Quartz 230kV line. \$1,350,970,300 Maintenance/Aging Infrastructure 2016 Repairs of Ontario to Quartz 138kV line. \$1,453,377,650 Maintenance 2016 Repairs of Ontario to Quartz 138kV line. \$1,453,377,650 Maintenance 2017 Replacement of Quartz substation line protection and circuit breakers. \$1,453,377,650 Maintenance 2017 Replacement of Quartz substation line protection and circuit breakers. \$1,453,477,47,477,478,878,878,878,978,978,978,978,978,978,9	2014	Reconductor of the Oxbow - Pallette 230kV line	\$ 1,863,166.74	Ground Clearance
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2016 Capitalized maintenance on Ontario to Quartz 138kV line 2016 Rebuild of Oxbow to Halfway 69kV line. 2016 Capitalized maintenance on Quartz - North Powder - LaGrande 230kV line. 2016 Capitalized maintenance on Brownlee to Quartz 230kV line. 2016 Repairs of Ontario to Quartz 138kV line. 2016 Repairs of Ontario to Quartz 138kV line. 2016 Repairs of Pine Creek to Hells Canyon 69kV line. 2017 Replacement of Quartz substation line protection and circuit breakers. 2017 Replacement of Oxbow switchyard circuit breakers. 2017 Replacement of Oxbow switchyard circuit breakers. 2017 Repairs of Pallette - Innaha 230kV line. 2017 Repairs of Pallette - Innaha 230kV line. 2018 Replacement of Oxbow switchyard circuit breakers. 2019 Replacement of Oxbow switchyard circuit breakers. 2017 Repairs of Vale - Drewsy 69kV line. 2018 Replacement of Ontario 69kV circuit breakers, 138kV circuit switcher, and 69kV airbreak. 2018 Replacement of Ontario 230kV Series Capacitor Controls. 2018 Replacement of Ontario 230kV Series Capacitor Controls. 2018 Replacement of Quartz substation circuit breakers and line protection systems. 2018 Capitalized maintenance on Drewsey - Sandhill 69kV line. 2018 Capitalized maintenance on Vale - Unity 69kV line. 2018 Capitalized maintenance on Vale - Unity 69kV line. 2019 Capitalized maintenance on Weiser - Quartz 69kV 2019 Capitalized maintenance on Weiser - Quartz 69kV 2019 Capitalized maintenance on Weiser - Quartz 69kV 2010 Capitalized maintenance on Weiser - Quartz 69kV 2010 Capitalized maintenance on Weiser - Quartz 69kV 2010 Capitalized maintenance on Weiser - Quartz 69kV line 2010 Capitalized maintenance on Emmett - Ontario 69kV line 2010 Capitalized maintenance on Emmett - Ontario 69kV line 2010 Capitalized maintenance on Dieser - Quartz 69kV 2010 Capitalized maintenance on Weiser - Quart	2015	Replacement of structures on Gem to Jordan Valley 69kV line	\$ 741,640.37	Maintenance/Aging Infrastructure
2016 Rebuild of Oxbow to Halfway 69kV line. 2016 Capitalized maintenance on Quartz - North Powder - LaGrande 230kV line. 2016 Capitalized maintenance on Brownlee to Quartz 230kV line. 2016 Repairs of Ontario to Quartz 138kV line. 2016 Repairs of Pine Creek to Hells Canyon 69kV line. 2017 Replacement of Quartz substation line protection and circuit breakers. 2017 Replacement of Oxbow switchyard circuit breakers. 2017 Replacement of Oxbow switchyard circuit breakers. 2017 Repairs of Pallette - Imnaha 230kV line. 2017 Repairs of Pallette - Imnaha 230kV line. 2018 Replacement of Oxtows witchyard circuit breakers. 2019 Repairs of Ontario 89kV circuit breakers. 2018 Replacement of Ontario 89kV circuit breakers, 138kV circuit switcher, and 69kV airbreak. 2018 Replacement of Ontario 69kV circuit breakers and line protection systems. 2018 Replacement of Ontario 230kV Series Capacitor Controls. 2018 Replacement of Ontario 230kV Series Capacitor Controls. 2018 Replacement of Deartz substation circuit breakers and line protection systems. 2018 Capitalized maintenance on Drewsey - Sandhill 69kV line. 2018 Capitalized maintenance on Vale - Unity 69kV line. 2019 Capitalized maintenance on Vale - Unity 69kV line. 2019 Capitalized maintenance on Weiser - Quartz 69kV 2019 Capitalized maintenance on Weiser - Quartz 69kV 2019 Capitalized maintenance on Weiser - Quartz 69kV 2010 Quartz bus protection replacement 2010 Capitalized maintenance on Weiser - Quartz 69kV 2010 Quartz bus protection replacement 2010 Quartz bus protection replacement 2010 Quartz bus protection replacement 2010 Repairs to Vale-Quartz Inspection and repair 2010 Pallette Junction - Hurricane 10 year maintenance 2010 Pallette Junction - Hurricane 10 year maintenance	2015	Replacement of fire damaged structures on Brownlee to Quartz Junction 230kV line	\$ 573,466.30	Replacement of Fire Damaged Structures
2016 Capitalized maintenance on Quartz - North Powder - LaGrande 230kV line. \$ 1,350,970.30 Maintenance 2016 Capitalized maintenance on Brownlee to Quartz 230kV line. \$ 1,453,377.55 Maintenance 2016 Repairs of Ontario to Quartz 138kV line. \$ 291,472.38 Maintenance 2017 Replacement of Quartz substation line protection and circuit breakers. \$ 834,139.83 Aging Infrastructure Replacement 2017 Replacement of Oxbow switchyard circuit breakers. \$ 462,394.70 Aging Infrastructure Replacement 2017 Repairs of Pallette - Imnaha 230kV line. \$ 381,141.24 Maintenance 2017 Repairs of Pallette - Imnaha 230kV line. \$ 615,037.47 2018 Replacement of Ontario 69kV circuit breakers, 138kV circuit switcher, and 69kV airbreak. \$ 526,752.01 Aging Infrastructure Replacement 2018 Replacement of Ontario 69kV circuit breakers and line protection systems. \$ 259,440.23 Aging Infrastructure Replacement 2018 Replacement of Quartz substation circuit breakers and line protection systems. \$ 259,440.23 Aging Infrastructure Replacement 2018 Replacement of Quartz substation circuit breakers and line protection systems. \$ 259,440.23 Aging Infrastructure Replacement 2018 Capitalized maintenance on Drewsey - Sandhill 69kV line. \$ 381,275.01 Maintenance 2018 Capitalized maintenance on Vale - Unity 69kV line. \$ 588,043.31 Maintenance 2019 Capitalized maintenance on Wale - Unity 69kV line. \$ 588,043.31 Maintenance 2019 Capitalized maintenance on Weiser - Quartz 69kV \$ 285,019.56 Maintenance 2019 Capitalized maintenance on Weiser - Quartz 69kV \$ 285,019.56 Maintenance 2010 Quartz bus protection replacement 2010 Repairs to Vale-Juntura-Drewsey \$ 1,743,096.58 Maintenance 2010 Repairs to Vale-Juntura-Drewsey \$ 1,743,096.58 Maintenance 2010 Pallette Junction - Hurricane 10 year maintenance 2010 Pallette Junction - Hurricane 10 year maintenance	2016	Capitalized maintenance on Ontario to Quartz 138kV line	\$ 334,593.73	Maintenance
2016 Capitalized maintenance on Brownlee to Quartz 230kV line. \$ 1,453,377.65 Maintenance 2016 Repairs of Ontario to Quartz 138kV line. \$ 585,460.50 Maintenance 2017 Replacement of Quartz substation line protection and circuit breakers. \$ 291,472.38 Maintenance 2017 Replacement of Quartz substation line protection and circuit breakers. \$ 834,139.83 Aging Infrastructure Replacement 2017 Repairs of Pallette - Imnaha 230kV line. \$ 381,141.24 Maintenance 2017 Repairs of Vale - Drewsy 69kV line. \$ 615,037.47 Maintenance 2018 Replacement of Ontario 69kV circuit breakers, 138kV circuit switcher, and 69kV airbreak. \$ 526,752.01 Aging Infrastructure Replacement 2018 Replacement of Ontario 69kV breakers, 138kV circuit switcher, and 69kV airbreak. \$ 1,912,006.24 Aging Infrastructure Replacement 2018 Replacement of Quartz substation circuit breakers and line protection systems. \$ 259,440.23 Aging Infrastructure Replacement 2018 Rebuild of section of Emmet - Ontario 69kV line. \$ 287,469.34 Maintenance 2018 Capitalized maintenance on Drewsey - Sandhill 69kV line. \$ 361,275.01 Maintenance 2019 Replacement of Hines substation 138/115kV transformer 2019 Capitalized maintenance on Vale - Unity 69kV line \$ 2,186,283.89 Maintenance 2019 Capitalized maintenance on Weiser - Quartz 69kV 2019 Capitalized maintenance on Emmet - Ontario 69kV line \$ 2,186,283.89 Maintenance 2019 Capitalized maintenance on Emmet - Ontario 69kV line \$ 255,524.90 Maintenance 2010 Quartz bus protection replacement \$ 1,039,282.31 Aging Infrastructure Replacement 2010 O year Ontario - Quartz Inspection and repair 2011 O year Ontario - Quartz Inspection and repair 2012 Repairs to Vale-Juntura-Drewsey \$ 1,743,096.58 Maintenance 2012 Repairs to Vale-Juntura-Drewsey \$ 1,743,096.58 Maintenance 2018 Maintenance	2016	Rebuild of Oxbow to Halfway 69kV line.	\$ 2,665,693.50	Maintenance/Aging Infrastructure
2016 Repairs of Ontario to Quartz 138kV line. 2017 Replacement of Quartz substation line protection and circuit breakers. 2017 Replacement of Oxbow switchyard circuit breakers. 2017 Replacement of Oxbow switchyard circuit breakers. 2017 Repairs of Pallette - Imnaha 230kV line. 2017 Repairs of Pallette - Imnaha 230kV line. 2018 Replacement of Oxbow switchyard circuit breakers. 2019 Repairs of Vale - Drewsy 69kV line. 2010 Repairs of Vale - Drewsy 69kV circuit breakers, 138kV circuit switcher, and 69kV airbreak. 2018 Replacement of Ontario 69kV circuit breakers, 138kV circuit switcher, and 69kV airbreak. 2018 Replacement of Ontario 230kV Series Capacitor Controls. 2018 Replacement of Ouartz substation circuit breakers and line protection systems. 2018 Replacement of Quartz substation circuit breakers and line protection systems. 2018 Replacement of Quartz substation circuit breakers and line protection systems. 2018 Capitalized maintenance on Drewsey - Sandhill 69kV line. 2018 Capitalized maintenance on Vale - Unity 69kV line. 2019 Replacement of Hines substation 138/115kV transformer 2019 Capitalized maintenance on Weiser - Quartz 69kV line 2019 Capitalized maintenance on Weiser - Quartz 69kV line 2019 Capitalized maintenance on Emmett - Ontario 69kV line 2010 Capitalized maintenance on Emmett - Ontario 69kV line 2011 Capitalized maintenance on Emmett - Ontario 69kV line 2012 Capitalized maintenance on Emmett - Ontario 69kV line 2013 Capitalized maintenance on Emmett - Ontario 69kV line 2014 Capitalized maintenance on Emmett - Ontario 69kV line 2015 Capitalized maintenance on Emmett - Ontario 69kV line 2016 Capitalized maintenance on Emmett - Ontario 69kV line 2017 Capitalized maintenance on Emmett - Ontario 69kV line 2018 Capitalized maintenance on Emmett - Ontario 69kV line 2019 Capitalized maintenance on Emmett - Ontario 69kV line 2010 Capitalized maintenance on Emmett - Ontario 69kV line 2010 Capitalized maintenance on Emmett - Ontario 69kV line 2010 Capitalized maintenance on Emmett - Ontario 69kV line 2010	2016	Capitalized maintenance on Quartz - North Powder - LaGrande 230kV line.	\$ 1,350,970.30	Maintenance
Repairs of Pine Creek to Hells Canyon 69kV line. Replacement of Quartz substation line protection and circuit breakers. Replacement of Oxbow switchyard circuit breakers. Replacement of Oxbow switchyard circuit breakers. Repairs of Pallette - Imnaha 230kV line. Repairs of Pallette - Imnaha 230kV line. Repairs of Vale - Drewsy 69kV line. Replacement of Ontario 69kV circuit breakers, 138kV circuit switcher, and 69kV airbreak. Replacement of Ontario 69kV circuit breakers, 138kV circuit switcher, and 69kV airbreak. Replacement of Ontario 230kV Series Capacitor Controls. Replacement of Quartz substation circuit breakers and line protection systems. Replacement of Quartz substation circuit breakers and line protection systems. Replacement of Quartz substation circuit breakers and line protection systems. Replacement of Quartz substation circuit breakers and line protection systems. Replacement of Quartz substation of Rimmet - Ontario 69kV line. Replacement of Gemmet - Ontario 69kV line. Replacement of Hines substation 13k1/15kV transformer Replacement of Hines Hines Hines Hines Hines	2016	Capitalized maintenance on Brownlee to Quartz 230kV line.	\$ 1,453,377.65	Maintenance
Replacement of Quartz substation line protection and circuit breakers. Replacement of Oxbow switchyard circuit breakers. Replacement of Oxbow switchyard circuit breakers. Repairs of Pallette - Imnaha 230kV line. Repairs of Vale - Drewsy 69kV line. Replacement of Ontario 69kV circuit breakers, 138kV circuit switcher, and 69kV airbreak. Replacement of Ontario 69kV circuit breakers, 138kV circuit switcher, and 69kV airbreak. Replacement of Ontario 230kV Series Capacitor Controls. Replacement of Quartz substation circuit breakers and line protection systems. Replacement of Quartz substation circuit breakers and line protection systems. Replacement of Quartz substation circuit breakers and line protection systems. Replacement of Quartz substation of Emmet - Ontario 69kV line. Replacement of Quartz substation of Emmet - Ontario 69kV line. Replacement of Quartz substation of Emmet - Ontario 69kV line. Replacement of Hines substation 138/115kV transformer Aging Infrastructure Replacement Maintenance Maintenance Aging Infrastructure Replacement Maintenance Maintenance Aging Infrastructure Replacement Maintenance Maintenance Aging Infrastructure Replacement Sangalar	2016	Repairs of Ontario to Quartz 138kV line.	\$ 585,460.50	Maintenance
2017 Replacement of Oxbow switchyard circuit breakers. \$ 462,394.70 Aging Infrastructure Replacement 2017 Repairs of Pallette - Imnaha 230kV line. \$ 381,141.24 Maintenance 2018 Replacement of Ontario 69kV circuit breakers, 138kV circuit switcher, and 69kV airbreak. \$ 526,752.01 Aging Infrastructure Replacement 2018 Replacement of Ontario 230kV Series Capacitor Controls. \$ 1,912,006.24 Aging Infrastructure Replacement 2018 Replacement of Quartz substation circuit breakers and line protection systems. \$ 259,440.23 Aging Infrastructure Replacement 2018 Replacement of Quartz substation circuit breakers and line protection systems. \$ 287,469.34 Maintenance 2018 Capitalized maintenance on Drewsey - Sandhill 69kV line. \$ 361,275.01 Maintenance 2018 Capitalized maintenance on Vale - Unity 69kV line. \$ 588,043.31 Maintenance 2019 Replacement of Hines substation 138/115kV transformer \$ 1,389,214.53 Aging Infrastructure Replacement/Increase Capacity 2019 Capitalized maintenance on Weiser - Quartz 69kV \$ 2,186,283.89 Maintenance 2019 Capitalized maintenance on Emmett - Ontario 69kV line \$ 255,524.90 Maintenance 2010 Quartz bus protection replacement 2020 Quartz bus protection replacement 2020 Quartz bus protection replacement 2020 Repairs to Vale-Juntura-Drewsey \$ 1,743,096.58 Maintenance 2020 Repairs to Vale-Juntura-Drewsey \$ 1,743,096.58 Maintenance 2020 Pallette Junction - Hurricane 10 year maintenance 2020 Pallette Junction - Hurricane 10 year maintenance	2016	Repairs of Pine Creek to Hells Canyon 69kV line.	\$ 291,472.38	Maintenance
2017 Repairs of Pallette - Immaha 230kV line. \$ 381,141.24 Maintenance 2018 Repairs of Vale - Drewsy 69kV line. \$ 615,037.47 Maintenance 2018 Replacement of Ontario 69kV circuit breakers, 138kV circuit switcher, and 69kV airbreak. \$ 526,752.01 Aging Infrastructure Replacement 2018 Replacement of Ontario 230kV Series Capacitor Controls. \$ 1,912,006.24 Aging Infrastructure Replacement 2018 Replacement of Quartz substation circuit breakers and line protection systems. \$ 259,440.23 Aging Infrastructure Replacement 2018 Rebuild of section of Emmet - Ontario 69kV line \$ 287,469.34 Maintenance 2018 Capitalized maintenance on Drewsey - Sandhill 69kV line. \$ 361,275.01 Maintenance 2019 Replacement of Hines substation 138/115kV transformer \$ 1,389,214.53 Aging Infrastructure Replacement/Increase Capacity 2019 Capitalized maintenance on Oxbow - Lolo 230kV line \$ 2,186,283.89 Maintenance 2019 Capitalized maintenance on Weiser - Quartz 69kV \$ 285,019.56 Maintenance 2019 Capitalized maintenance on Emmett - Ontario 69kV line \$ 255,524.90 Maintenance 2020 Quartz bus protection replacement \$ 1,089,828.31 Aging Infrastructure Replacement 2020 Quartz bus protection replacement \$ 1,089,828.31 Aging Infrastructure Replacement 2020 Repairs to Vale-Juntura-Drewsey \$ 1,743,096.58 Maintenance 2020 Pallette Junction - Hurricane 10 year maintenance \$ 425,198.20 Maintenance	2017	Replacement of Quartz substation line protection and circuit breakers.	\$ 834,139.83	Aging Infrastructure Replacement
2017 Repairs of Vale - Drewsy 69kV line. 2018 Replacment of Ontario 69kV circuit breakers, 138kV circuit switcher, and 69kV airbreak. 2018 Replacement of Ontario 230kV Series Capacitor Controls. 2018 Replacement of Quartz substation circuit breakers and line protection systems. 2018 Rebuild of section of Emmet - Ontario 69kV line 2018 Capitalized maintenance on Drewsey - Sandhill 69kV line. 2018 Capitalized maintenance on Vale - Unity 69kV line. 2019 Replacement of Hines substation 138/115kV transformer 2019 Capitalized maintenance on Oxbow - Lolo 230kV line 2019 Capitalized maintenance on Weiser - Quartz 69kV 2019 Capitalized maintenance on Emmett - Ontario 69kV line 2019 Capitalized maintenance on Emmett - Ontario 69kV line 2019 Capitalized maintenance on Weiser - Quartz 69kV 2010 Capitalized maintenance on Emmett - Ontario 69kV line 2010 Capitalized maintenance on Emmett - Ontario 69kV line 2010 Capitalized maintenance on Emmett - Ontario 69kV line 2010 Capitalized maintenance on Emmett - Ontario 69kV line 2010 Capitalized maintenance on Emmett - Ontario 69kV line 2011 Capitalized maintenance on Emmett - Ontario 69kV line 2010 Capitalized maintenance on Emmett - Ontario 69kV line 2011 Capitalized maintenance on Emmett - Ontario 69kV line 2011 Capitalized maintenance on Emmett - Ontario 69kV line 2011 Capitalized maintenance on Emmett - Ontario 69kV line 2011 Capitalized maintenance on Emmett - Ontario 69kV line 2011 Capitalized maintenance on Emmett - Ontario 69kV line 2011 Capitalized maintenance on Emmett - Ontario 69kV line 2011 Capitalized maintenance on Emmett - Ontario 69kV line 2012 Capitalized maintenance on Emmett - Ontario 69kV line 2013 Capitalized maintenance on Emmett - Ontario 69kV line 2014 Capitalized maintenance on Emmett - Ontario 69kV line 2015 Capitalized maintenance on Emmett - Ontario 69kV line 2010 Capitalized maintenance on Emmett - Ontario 69kV line 2011 Capitalized maintenance on Emmett - Ontario 69kV line 2012 Capitalized maintenance on Emmett - Ont	2017	Replacement of Oxbow switchyard circuit breakers.	\$ 462,394.70	Aging Infrastructure Replacement
2018 Replacment of Ontario 69kV circuit breakers, 138kV circuit switcher, and 69kV airbreak. 2018 Replacement of Ontario 230kV Series Capacitor Controls. 2018 Replacement of Quartz substation circuit breakers and line protection systems. 2018 Rebuild of section of Emmet - Ontario 69kV line 2018 Capitalized maintenance on Drewsey - Sandhill 69kV line. 2018 Capitalized maintenance on Vale - Unity 69kV line. 2019 Replacement of Hines substation 138/115kV transformer 2019 Capitalized maintenance on Oxbow - Lolo 230kV line 2019 Capitalized maintenance on Weiser - Quartz 69kV 2019 Capitalized maintenance on Emmett - Ontario 69kV line 2019 Capitalized maintenance on Emmett - Ontario 69kV line 2019 Capitalized maintenance on Emmett - Ontario 69kV line 2019 Capitalized maintenance on Emmett - Ontario 69kV line 2019 Capitalized maintenance on Emmett - Ontario 69kV line 2019 Capitalized maintenance on Emmett - Ontario 69kV line 2010 Capitalized maintenance on Emmett - Ontario 69kV line 2010 Quartz bus protection replacement 2020 Quartz bus protection replacement 2020 Quartz bus protection - Quartz Inspection and repair 2020 Repairs to Vale-Juntura-Drewsey 2020 Pallette Junction - Hurricane 10 year maintenance 2020 Pallette Junction - Hurricane 10 year maintenance	2017	Repairs of Pallette - Imnaha 230kV line.	\$ 381,141.24	Maintenance
2018 Replacement of Ontario 230kV Series Capacitor Controls. 2018 Replacement of Quartz substation circuit breakers and line protection systems. 2018 Rebuild of section of Emmet - Ontario 69kV line 2018 Capitalized maintenance on Drewsey - Sandhill 69kV line. 2018 Capitalized maintenance on Vale - Unity 69kV line. 2019 Replacement of Hines substation 138/115kV transformer 2019 Capitalized maintenance on Oxbow - Lolo 230kV line 2019 Capitalized maintenance on Weiser - Quartz 69kV 2019 Capitalized maintenance on Emmett - Ontario 69kV line 2019 Capitalized maintenance on Emmett - Ontario 69kV line 2010 Quartz bus protection replacement 2020 Quartz bus protection replacement 2020 Repairs to Vale-Juntura-Drewsey 2020 Pallette Junction - Hurricane 10 year maintenance 2030 Maintenance 2040 Maintenance 2050 Maintenance 2060 Maintenance 2070 Maintenance	2017	Repairs of Vale - Drewsy 69kV line.	\$ 615,037.47	Maintenance
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2018 Rebuild of section of Emmet - Ontario 69kV line \$287,469.34 Maintenance 2018 Capitalized maintenance on Drewsey - Sandhill 69kV line. \$361,275.01 Maintenance 2018 Capitalized maintenance on Vale - Unity 69kV line. \$588,043.31 Maintenance 2019 Replacement of Hines substation 138/115kV transformer \$1,389,214.53 Aging Infrastructure Replacement/Increase Capacity 2019 Capitalized maintenance on Oxbow - Lolo 230kV line \$2,186,283.89 Maintenance 2019 Capitalized maintenance on Weiser - Quartz 69kV \$285,019.56 Maintenance 2019 Capitalized maintenance on Emmett - Ontario 69kV line \$255,524.90 Maintenance 2020 Quartz bus protection replacement \$1,089,828.31 Aging Infrastructure Replacement 2020 10 year Ontario - Quartz Inspection and repair \$2,118,399.34 Maintenance 2020 Repairs to Vale-Juntura-Drewsey \$1,743,096.58 Maintenance 2020 Pallette Junction - Hurricane 10 year maintenance \$425,198.20 Maintenance	2018	Replacement of Ontario 230kV Series Capacitor Controls.	\$ 1,912,006.24	Aging Infrastructure Replacement
2018 Capitalized maintenance on Drewsey - Sandhill 69kV line. 2018 Capitalized maintenance on Vale - Unity 69kV line. 2019 Replacement of Hines substation 138/115kV transformer 2019 Capitalized maintenance on Oxbow - Lolo 230kV line 2019 Capitalized maintenance on Weiser - Quartz 69kV 2019 Capitalized maintenance on Emmett - Ontario 69kV line 2019 Capitalized maintenance on Emmett - Ontario 69kV line 2010 Quartz bus protection replacement 2020 Quartz bus protection replacement 2020 10 year Ontario - Quartz Inspection and repair 2020 Repairs to Vale-Juntura-Drewsey 2020 Pallette Junction - Hurricane 10 year maintenance \$ 361,275.01 Maintenance \$ 588,043.31 Maintenance \$ 2,186,283.89 Maintenance \$ 425,198.20 Maintenance	2018	Replacement of Quartz substation circuit breakers and line protection systems.	\$ 259,440.23	Aging Infrastructure Replacement
2018 Capitalized maintenance on Vale - Unity 69kV line. 2019 Replacement of Hines substation 138/115kV transformer 2019 Capitalized maintenance on Oxbow - Lolo 230kV line 2019 Capitalized maintenance on Weiser - Quartz 69kV 2019 Capitalized maintenance on Emmett - Ontario 69kV line 2019 Capitalized maintenance on Emmett - Ontario 69kV line 2020 Quartz bus protection replacement 2020 Quartz bus protection replacement 2020 10 year Ontario - Quartz Inspection and repair 2020 Repairs to Vale-Juntura-Drewsey 2020 Pallette Junction - Hurricane 10 year maintenance \$ 588,043.31 Aging Infrastructure Replacement/Increase Capacity \$ 2,186,283.89 Maintenance \$ 285,019.56 Maintenance \$ 1,089,828.31 Aging Infrastructure Replacement \$ 2,118,399.34 Maintenance \$ 1,743,096.58 Maintenance \$ 425,198.20 Maintenance	2018	Rebuild of section of Emmet - Ontario 69kV line	\$ 287,469.34	Maintenance
2019 Replacement of Hines substation 138/115kV transformer \$ 1,389,214.53 Aging Infrastructure Replacement/Increase Capacity 2019 Capitalized maintenance on Oxbow - Lolo 230kV line \$ 2,186,283.89 Maintenance 2019 Capitalized maintenance on Weiser - Quartz 69kV \$ 285,019.56 Maintenance 2019 Capitalized maintenance on Emmett - Ontario 69kV line \$ 255,524.90 Maintenance 2020 Quartz bus protection replacement \$ 1,089,828.31 Aging Infrastructure Replacement 2020 10 year Ontario - Quartz Inspection and repair \$ 2,118,399.34 Maintenance 2020 Repairs to Vale-Juntura-Drewsey \$ 1,743,096.58 Maintenance 2020 Pallette Junction - Hurricane 10 year maintenance \$ 425,198.20 Maintenance	2018	Capitalized maintenance on Drewsey - Sandhill 69kV line.	\$ 361,275.01	Maintenance
2019 Capitalized maintenance on Oxbow - Lolo 230kV line \$ 2,186,283.89 Maintenance 2019 Capitalized maintenance on Weiser - Quartz 69kV \$ 285,019.56 Maintenance 2019 Capitalized maintenance on Emmett - Ontario 69kV line \$ 255,524.90 Maintenance 2020 Quartz bus protection replacement \$ 1,089,828.31 Aging Infrastructure Replacement 2020 10 year Ontario - Quartz Inspection and repair \$ 2,118,399.34 Maintenance 2020 Repairs to Vale-Juntura-Drewsey \$ 1,743,096.58 Maintenance 2020 Pallette Junction - Hurricane 10 year maintenance \$ 425,198.20 Maintenance	2018	Capitalized maintenance on Vale - Unity 69kV line.	\$ 588,043.31	Maintenance
2019 Capitalized maintenance on Weiser - Quartz 69kV \$ 285,019.56 Maintenance 2019 Capitalized maintenance on Emmett - Ontario 69kV line \$ 255,524.90 Maintenance 2020 Quartz bus protection replacement \$ 1,089,828.31 Aging Infrastructure Replacement 2020 10 year Ontario - Quartz Inspection and repair \$ 2,118,399.34 Maintenance 2020 Repairs to Vale-Juntura-Drewsey \$ 1,743,096.58 Maintenance 2020 Pallette Junction - Hurricane 10 year maintenance \$ 425,198.20 Maintenance	2019	Replacement of Hines substation 138/115kV transformer	\$ 1,389,214.53	Aging Infrastructure Replacement/Increase Capacity
2019 Capitalized maintenance on Emmett - Ontario 69kV line \$ 255,524.90 Maintenance 2020 Quartz bus protection replacement \$ 1,089,828.31 Aging Infrastructure Replacement 2020 10 year Ontario - Quartz Inspection and repair \$ 2,118,399.34 Maintenance 2020 Repairs to Vale-Juntura-Drewsey \$ 1,743,096.58 Maintenance 2020 Pallette Junction - Hurricane 10 year maintenance \$ 425,198.20 Maintenance	2019	Capitalized maintenance on Oxbow - Lolo 230kV line	\$ 2,186,283.89	Maintenance
2020Quartz bus protection replacement\$ 1,089,828.31Aging Infrastructure Replacement202010 year Ontario - Quartz Inspection and repair\$ 2,118,399.34Maintenance2020Repairs to Vale-Juntura-Drewsey\$ 1,743,096.58Maintenance2020Pallette Junction - Hurricane 10 year maintenance\$ 425,198.20Maintenance	2019	Capitalized maintenance on Weiser - Quartz 69kV	\$ 285,019.56	Maintenance
2020 10 year Ontario - Quartz Inspection and repair \$ 2,118,399.34 Maintenance 2020 Repairs to Vale-Juntura-Drewsey \$ 1,743,096.58 Maintenance 2020 Pallette Junction - Hurricane 10 year maintenance \$ 425,198.20 Maintenance	2019	Capitalized maintenance on Emmett - Ontario 69kV line	\$ 255,524.90	Maintenance
2020 Repairs to Vale-Juntura-Drewsey \$ 1,743,096.58 Maintenance 2020 Pallette Junction - Hurricane 10 year maintenance \$ 425,198.20 Maintenance	2020	Quartz bus protection replacement	\$ 1,089,828.31	Aging Infrastructure Replacement
2020 Pallette Junction - Hurricane 10 year maintenance \$ 425,198.20 Maintenance	2020	10 year Ontario - Quartz Inspection and repair	\$ 2,118,399.34	Maintenance
	2020	Repairs to Vale-Juntura-Drewsey	\$ 1,743,096.58	Maintenance
2020 Replace Hines relaying \$ 699,609.54 Aging Infrastructure Replacement	2020	Pallette Junction - Hurricane 10 year maintenance	\$ 425,198.20	Maintenance
	2020	Replace Hines relaying	\$ 699,609.54	Aging Infrastructure Replacement

NEWSUN DATA REQUESTS NO. 9:

Please list all QF-funded network upgrades that did not result in any benefit to the transmission system, such benefits to include, but not be limited to, increased load serving capability, enhanced reliability, improved transfer capability within the existing system, or relief of existing congestion on the transmission system?

IDAHO POWER COMPANY'S RESPONSE TO NEWSUN DATA REQUEST NO. 9:

Idaho Power objects that this request is overly broad and unduly burdensome. Idaho Power further objects that the phrase "any benefits to the transmission system" is vague and ambiguous. The Joint Utilities have explained their position regarding system-wide benefits in their testimony.

Subject to and without waiving the foregoing, Idaho Power provides the following response: Any QF-funded network upgrades would be designed only as needed and necessary to interconnect the QF, and if the QF is selling its output to Idaho Power, to have the QF's generation be designated as a network resource. Upgrades related to QF interconnections are not driven by a need to meet other customer load or system capacity requirements.

Attachment B

DRs regarding practical differences between QFs and non-QFs

March 5, 2021

TO: Marie Barlow

NewSun Energy, LLC ("NewSun")

FROM: Robert Macfarlane

Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC UM 2032

PGE Supplemental Response to NewSun Data Request No. 006 Dated January 6, 2020

Request:

Please list all power purchase agreements under which PGE purchases power including:

- a. Project name,
- b. Nameplate capacity,
- c. Term of power purchases,
- d. Whether the purchase agreement was entered into pursuant to PURPA, an RFP, a bi-lateral agreement, or other,
- e. Whether the facility is certified as a qualifying facility under PURPA,
- f. Under what interconnection rules/process the facility was interconnected,
- g. Whether the facility interconnected as ERIS or NRIS,
- h. The cost of network upgrades funded under the interconnection agreement,
- i. Whether the generator is eligible to receive refunds for its network upgrades funded under the interconnection agreement,
- j. The type of transmission service,
- k. The entity that submitted the transmission service request,
- 1. The cost of network upgrades funded under the transmission service request.

Supplemental Response

After conferral with NewSun, PGE understands that the intent of these data requests was to allow NewSun to trace specific generators through the interconnection and transmission-service-request processes to evaluate the Joint Utilities' testimony that Network Upgrades can be shifted from the interconnection process to the transmission-service-request process when a generator interconnects with ERIS instead of NRIS. PGE notes that the potential for upgrade-shifting that NewSun seeks to confirm is a straightforward application of the OATT and related FERC orders. In addition, as noted in PGE's initial responses, the additional information NewSun requests is voluminous and would be extremely burdensome to compile, if it were even available. However, PGE provides this supplemental response in an effort to respond directly to the narrower question that PGE now understands NewSun is asking. PGE understands that NewSun is not interested in reviewing every transmission and interconnection study, and PGE believes that this supplemental

response more efficiently and directly responds to NewSun's question than providing information about numerous interconnection and transmission service requests.

As PGE has explained in testimony and in response to other data requests, all of PGE's on-system QFs interconnected with NRIS. Of the on-system, non-QF resources that PGE owns or purchases power from, only one generator originally interconnected with ERIS.¹ As PGE previously indicated in response to NewSun Data Request No. 20, "PGE's Port Westward 2 generating facility interconnected with ERIS. No network upgrades were required to designate Port Westward 2 as a network resource because sufficient transmission capacity existed on PGE's system to deliver the output to PGE's network load." Port Westward 2 is located near PGE's Port Westward 1 and Beaver facilities. When developing and interconnecting Port Westward 2, PGE's Merchant Function knew that it already possessed sufficient transmission capacity to deliver Port Westward 2's output to PGE's load and therefore decided to interconnect the facility using ERIS.

To the extent NewSun is interested in identifying the magnitude of Network Upgrades that could be shifted if a generator interconnected with ERIS, Attachment 001A to PGE's response to Staff Data Request No. 1 shows the deliverability-driven Network Upgrades PGE has identified in system impact studies for two large generators, one of which is a QF with more than \$10 million in deliverability-driven Network Upgrades.

Note this response applies to NewSun Data Request Nos. 6, 8, 19 and 20.

Response:

PGE objects that this request is overly broad, unduly burdensome, and requests information that is neither relevant nor reasonably calculated to lead to the discovery of admissible evidence.

Notwithstanding and without waiving these objections: Please see PGE's Responses to NIPPC Data Request Nos. 1, 2, 3, 4, 7, 8, 31, and 33; PGE's Response to Staff Data Request Nos. 5, 8, and 12; docket RE 143; and PGE's small and large generator interconnection gueues, which are publicly available on OASIS. PGE does not track and compile information regarding the interconnection arrangements of the resources from which it purchases under non-QF PPAs or the off-system QFs from which it purchases. All QFs directly interconnected to PGE interconnected with NRIS. Similarly, PGE does not compile information regarding the off-system transmission arrangements of resources from which it purchases. PGE has not constructed any Network Upgrades on PGE's transmission system associated with requests for transmission service from PGE.

¹ Many of PGE's on-system resource interconnected well before FERC issued Order 2003, which adopted the NRIS and ERIS concepts, and took effect on January 20, 2004. See Order 2003-A at ¶ 40.

March 5, 2021

TO: Marie Barlow

NewSun Energy, LLC ("NewSun")

FROM: Robert Macfarlane

Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC UM 2032

PGE Supplemental Response to NewSun Data Request No. 008 Dated January 6, 2020

Request:

For each generator that has submitted an interconnection application to PGE from January 1, 2014 until present please provide the following:

- a. Queue Number,
- b. Project name,
- c. Date of interconnection request,
- d. Interconnection request status,
- e. Nameplate capacity,
- f. Project location (county and state),
- g. Generation technology type (wind, solar, etc),
- h. Whether the project requested interconnection as a QF selling 100% of its net output to PGE (at initial application or at any point during the interconnection process) and whether it switched from this QF status to non-QF status, and the date it switched (or vice-versa, if it first requested interconnection as a non-QF and later switched to QF),
- i. Any interconnection studies not publicly available online, including any prior studies which have been superseded by the studies that are posted on the website,
- j. The interconnection agreement, if one was executed,
- k. The developer or developers that submitted the interconnection application,
- 1. The in-service date, if operating, or scheduled commercial operation date if not,
- m. Regarding NR and ER interconnection service:
 - 1. Which service type was requested at initial application,
 - 2. Which service type was studied in each of the Feasibility, System Impact, and Facilities studies,
 - 3. Which service type the project ultimately interconnected under,
- n. Regarding network upgrade costs (identified in ER or NR or both):
 - 1. Estimated network upgrade costs in each of the Feasibility, System Impact, and Facilities studies,
 - 2. Final network upgrade costs assigned to the generator,
 - 3. Whether the network upgrades were ultimately constructed or are under construction,

- o. Provide a comparative table for all interconnection requests showing the key features of ER/NR (initial and final), interconnection and network upgrade costs (initial and final), withdrawal status, GIA execution, operational status, and QF status.
- p. Summarize the comparative outcomes of ER interconnection vs NR interconnection applications as relates interconnection and generator outcomes for projects in the following GIR size ranges: 0-10, 11-20, 21-40, 41-60, 61-80. Indicate withdrawal rates and summary numbers, interconnection agreements signed, and average final interconnection costs including network upgrades.

Supplemental Response:

After conferral with NewSun, PGE understands that the intent of these data requests was to allow NewSun to trace specific generators through the interconnection and transmission-service-request processes to evaluate the Joint Utilities' testimony that Network Upgrades can be shifted from the interconnection process to the transmission-service-request process when a generator interconnects with ERIS instead of NRIS. PGE notes that the potential for upgrade-shifting that NewSun seeks to confirm is a straightforward application of the OATT and related FERC orders. In addition, as noted in PGE's initial responses, the additional information NewSun requests is voluminous and would be extremely burdensome to compile, if it were even available. However, PGE provides this supplemental response in an effort to respond directly to the narrower question that PGE now understands NewSun is asking. PGE understands that NewSun is not interested in reviewing every transmission and interconnection study, and PGE believes that this supplemental response more efficiently and directly responds to NewSun's question than providing information about numerous interconnection and transmission service requests.

As PGE has explained in testimony and in response to other data requests, all of PGE's on-system QFs interconnected with NRIS. Of the on-system, non-QF resources that PGE owns or purchases power from, only one generator originally interconnected with ERIS.² As PGE previously indicated in response to NewSun Data Request No. 20, "PGE's Port Westward 2 generating facility interconnected with ERIS. No network upgrades were required to designate Port Westward 2 as a network resource because sufficient transmission capacity existed on PGE's system to deliver the output to PGE's network load." Port Westward 2 is located near PGE's Port Westward 1 and Beaver facilities. When developing and interconnecting Port Westward 2, PGE's Merchant Function knew that it already possessed sufficient transmission capacity to deliver Port Westward 2's output to PGE's load and therefore decided to interconnect the facility using ERIS.

To the extent NewSun is interested in identifying the magnitude of Network Upgrades that *could* be shifted if a generator interconnected with ERIS, Attachment 001A to PGE's response to Staff Data Request No. 1 shows the deliverability-driven Network Upgrades PGE has identified in system impact studies for two large generators, one of which is a QF with more than \$10 million in deliverability-driven Network Upgrades.

Note this response applies to NewSun Data Request Nos. 6, 8, 19 and 20.

² Many of PGE's on-system resource interconnected well before FERC issued Order 2003, which adopted the NRIS and ERIS concepts, and took effect on January 20, 2004. *See* Order 2003-A at ¶ 40.

Response:

PGE objects that this request is overly broad, unduly burdensome, and requests information that is neither relevant nor reasonably calculated to lead to the discovery of admissible evidence. PGE also objects that this request, and in particular parts (o) and (p), asks PGE to develop information and prepare analysis that would be unduly burdensome and does not have a high degree of relevance to the case.

Notwithstanding and without waiving these objections: Please see PGE's Responses to Staff Data Request Nos. 1, 5, and 12, and PGE's small and large generator interconnection queues, which are publicly available on OASIS. Project name, whether and when the request switched to/from QF status, and developer is not information that PGE typically tracks.

March 5, 2021

TO: Marie Barlow

NewSun Energy, LLC ("NewSun")

FROM: Robert Macfarlane

Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC UM 2032

PGE Supplemental Response to NewSun Data Request No. 019 Dated January 6, 2020

Request:

Referring to Joint Utilities/100 (Vail-Bremer-Foster-Larson-Ellsworth) at 30-31, please provide the following for each transmission service request received from January 1, 2014 until present:

- a. Queue Number,
- b. Project name,
- c. Date of transmission service request,
- d. Transmission service request status,
- e. Nameplate capacity,
- f. Project location (county and state),
- g. Generation technology type (wind, solar, etc),
- h. Type of transmission service,
- i. Point of receipt and point of delivery,
- j. Any transmission service request studies not publicly available online,
- k. The transmission service agreement, if one was executed,
- 1. The in-service date, if operating, or scheduled commercial operation date if not,
- m. Whether the output from the generator is delivered to PGE's retail load,
- n. Whether the generator is a qualifying facility,
- o. Whether the generator is on-system or off system,
- p. Whether the generator is interconnected using ERIS or NRIS,
- q. Regarding network upgrade costs:
 - 1. Estimated network upgrade costs in any transmission service studies,
 - 2. Final network upgrade costs assigned to the request,
 - 3. Whether the network upgrades were ultimately constructed or are under construction,

Supplemental Response:

After conferral with NewSun, PGE understands that the intent of these data requests was to allow NewSun to trace specific generators through the interconnection and transmission-service-request processes to evaluate the Joint Utilities' testimony that Network Upgrades can be shifted from the interconnection process to the transmission-service-request process when a generator

interconnects with ERIS instead of NRIS. PGE notes that the potential for upgrade-shifting that NewSun seeks to confirm is a straightforward application of the OATT and related FERC orders. In addition, as noted in PGE's initial responses, the additional information NewSun requests is voluminous and would be extremely burdensome to compile, if it were even available. However, PGE provides this supplemental response in an effort to respond directly to the narrower question that PGE now understands NewSun is asking. PGE understands that NewSun is not interested in reviewing every transmission and interconnection study, and PGE believes that this supplemental response more efficiently and directly responds to NewSun's question than providing information about numerous interconnection and transmission service requests.

As PGE has explained in testimony and in response to other data requests, all of PGE's on-system QFs interconnected with NRIS. Of the on-system, non-QF resources that PGE owns or purchases power from, only one generator originally interconnected with ERIS.³ As PGE previously indicated in response to NewSun Data Request No. 20, "PGE's Port Westward 2 generating facility interconnected with ERIS. No network upgrades were required to designate Port Westward 2 as a network resource because sufficient transmission capacity existed on PGE's system to deliver the output to PGE's network load." Port Westward 2 is located near PGE's Port Westward 1 and Beaver facilities. When developing and interconnecting Port Westward 2, PGE's Merchant Function knew that it already possessed sufficient transmission capacity to deliver Port Westward 2's output to PGE's load and therefore decided to interconnect the facility using ERIS.

To the extent NewSun is interested in identifying the magnitude of Network Upgrades that *could* be shifted if a generator interconnected with ERIS, Attachment 001A to PGE's response to Staff Data Request No. 1 shows the deliverability-driven Network Upgrades PGE has identified in system impact studies for two large generators, one of which is a QF with more than \$10 million in deliverability-driven Network Upgrades.

Note this response applies to NewSun Data Request Nos. 6, 8, 19 and 20.

Response:

PGE objects that this request is overly broad, unduly burdensome, and requests information that is neither relevant nor reasonably calculated to lead to the discovery of admissible evidence.

Notwithstanding and without waiving these objections:

A point-to-point transmission service request is not associated with a specific generator. Therefore, PGE cannot respond to subparts (b), (e), (f), (g), (l), (m), (n), (o), or (p) for each transmission service request. To the extent this request is asking about network integration transmission service, a list of designated network resources is available on OASIS and in PGE's Response to NIPPC Data Request No. 1. All QFs directly interconnected to PGE received NRIS. PGE has not constructed any Network Upgrades on its system associated with requests for transmission service from PGE. Please see Confidential Attachment 19A for information regarding the confirmed, currently active, yearly, point-to-point transmission service requests.

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³ Many of PGE's on-system resource interconnected well before FERC issued Order 2003, which adopted the NRIS and ERIS concepts, and took effect on January 20, 2004. *See* Order 2003-A at ¶ 40.

Reservation Summary

Provider: PGE
Increment: YEARLY
Type: POINT_TO_POINT
Status: Confirmed
Req Type: ORIGINAL
Use DST: true
Show NITS: true

Time : Active Before Today (01/01/1900 - 01/12/2021)

Status	Assign Ref	P Seller	Customer	MW Req	MW Grant POR	POD	Service	Increment	Туре	Source	Sink	Preconfirmed	Sale Ref	Start Time	Stop Time	Queued Time	Last Updated	Class Subclass
CONFIRMED	79875117	GE PGE	PGEM	250	250 COB	JOHNDAY	YEARLY FIRM	YEARLY	POINT_TO_POINT			YES		2015-01-01 00:00:00 PS	2020-01-01 00:00:00 PS	2014-06-23 07:48:42 PD	2014-06-25 15:49:53 PD	FIRM
CONFIRMED	81087171	GE PGE	PGEM	200	200 PACW	PGE	YEARLY FIRM	YEARLY	POINT_TO_POINT			YES		2016-01-01 00:00:00 PS	2021-01-01 00:00:00 PS	2015-04-17 12:04:18 PD	2019-12-30 09:28:18 PS	FIRM
CONFIRMED	81087178	PGE PGE	PGEM	200	200 PGE	PACW	YEARLY FIRM	YEARLY	POINT_TO_POINT			YES		2016-01-01 00:00:00 PS	2021-01-01 00:00:00 PS	2015-04-17 12:07:06 PD	2019-12-30 12:37:48 PS	FIRM
CONFIRMED	81182934	PGE PGE	PGEM	100	100 PACW	PGE	YEARLY FIRM	YEARLY	POINT_TO_POINT			YES		2016-01-01 00:00:00 PS	2021-01-01 00:00:00 PS	2015-05-14 10:02:47 PD	2019-12-30 09:28:18 PS	FIRM
CONFIRMED	81182959	PGE PGE	PGEM	100	100 PGE	PACW	YEARLY FIRM	YEARLY	POINT_TO_POINT			YES		2016-01-01 00:00:00 PS	2021-01-01 00:00:00 PS	2015-05-14 10:04:40 PD	2019-12-30 12:37:48 PS	FIRM
CONFIRMED	81348249 I	PGE PGE	PGEM	148	148 PGE	PACW	YEARLY FIRM	YEARLY	POINT_TO_POINT			YES		2016-01-01 00:00:00 PS	2021-01-01 00:00:00 PS	2015-06-25 09:35:57 PD	2019-12-30 12:37:48 PS	FIRM
CONFIRMED	81348278 I	PGE PGE	PGEM	118	118 PACW	PGE	YEARLY FIRM	YEARLY	POINT_TO_POINT			YES		2016-01-01 00:00:00 PS	2021-01-01 00:00:00 PS	2015-06-25 09:42:13 PD	2016-01-07 10:48:37 PS	FIRM
CONFIRMED	81712548 I	PGE PGE	PGEM	177	177 COB	JOHNDAY	YEARLY FIRM	YEARLY	POINT_TO_POINT			YES		2016-01-01 00:00:00 PS	2021-01-01 00:00:00 PS	2015-09-25 08:21:28 PD	2015-10-21 13:46:20 PD	FIRM
CONFIRMED	315999 I	PGE PGE	AVST	200	200 JOHNDAY	COB	YEARLY FIRM	YEARLY	POINT_TO_POINT	SPECULATIVE	SPECULATIVE	NO		2002-01-01 00:00:00 PS	2022-01-01 00:00:00 PS	2000-09-27 15:15:46 PD	2008-02-04 14:38:49 PS	FIRM
CONFIRMED	432190 I	PGE PGE	PGEM	200	200 JOHNDAY	COB	YEARLY FIRM	YEARLY	POINT_TO_POINT			NO		2002-01-01 00:00:00 PS	2022-01-01 00:00:00 PS	2002-01-11 08:16:18 PS	2020-02-14 06:55:59 PS	FIRM
CONFIRMED	82107491 I	PGE PGE	PGEM	200	200 COB	JOHNDAY	YEARLY FIRM	YEARLY	POINT_TO_POINT			YES		2017-01-01 00:00:00 PS	2022-01-01 00:00:00 PS	2016-01-11 13:03:43 PS	2016-02-02 14:23:00 PS	FIRM
CONFIRMED	83164604	PGE PGE	PAC	2	2 ROUNDBUTTE	REDMOND	YEARLY FIRM	YEARLY	POINT_TO_POINT			NO		2017-04-01 00:00:00 PD	2022-04-01 00:00:00 PD	2016-07-27 09:54:47 PD	2018-02-07 12:17:00 PS	FIRM
CONFIRMED	83164629 I	PGE PGE	PAC	10	10 ROUNDBUTTE	REDMOND	YEARLY FIRM	YEARLY	POINT_TO_POINT			NO		2017-04-01 00:00:00 PD	2022-04-01 00:00:00 PD	2016-07-27 09:57:19 PD	2016-07-27 10:18:09 PD	FIRM
CONFIRMED	73065442	PGE PGE	PGEM	27	Z7 COLDITAL	BROADVIEW	YEARLY FIRM	YEARLY	POINT_TO_POINT			NO		2009-06-01 00:00:00 PD	2022-07-01 00:00:00 PD	2009-05-07 06:47:53 PD	2011-09-23 09:40:54 PD	FIRM
CONFIRMED	73068563	PGE PGE	PGEM	280	280 COLSTRIP	GARRISON	YEARLY FIRM	YEARLY	POINT_TO_POINT			NO		2009-06-01 00:00:00 PD	2022-07-01 00:00:00 PD	2009-05-08 09:08:57 PD	2011-09-23 09:37:49 PD	FIRM
CONFIRMED	76059414 I	PGE PGE	PGEM	307	307 COLSTRIP	TOWNSEND	YEARLY FIRM	YEARLY	POINT_TO_POINT			NO		2011-10-01 00:00:00 PD	2022-07-01 00:00:00 PD	2011-08-16 10:02:25 PD	2020-12-29 15:23:30 PS	FIRM
CONFIRMED	84996127		PGEM	19		PGE	YEARLY FIRM	YEARLY	POINT_TO_POINT			YES		2017-07-01 00:00:00 PD	2022-07-01 00:00:00 PD	2017-06-13 17:50:51 PD	2020-12-08 09:12:43 PS	FIRM
CONFIRMED	84999325 I	PGE PGE	PGEM	15		PACW	YEARLY FIRM	YEARLY	POINT_TO_POINT			YES		2017-07-01 00:00:00 PD	2022-07-01 00:00:00 PD	2017-06-14 07:42:28 PD	2020-12-08 15:38:35 PS	FIRM
CONFIRMED	82941662 I	PGE PGE	PWX	100	100 COB	JOHNDAY	YEARLY FIRM	YEARLY	POINT_TO_POINT			NO		2018-01-01 00:00:00 PS	2023-01-01 00:00:00 PS	2016-06-17 10:08:41 PD	2018-06-02 17:43:03 PD	FIRM
CONFIRMED	85905952 I	PGE PGE	PGEM	15	15 PACW	PGE	YEARLY FIRM	YEARLY	POINT_TO_POINT			YES		2018-12-01 00:00:00 PS	2023-12-01 00:00:00 PS	2017-11-21 07:07:28 PS	2020-12-08 09:12:43 PS	FIRM
CONFIRMED	80833317	PGE PGE	PGEM	25	25 ROUNDBUTTE	PGE	YEARLY FIRM	YEARLY	POINT_TO_POINT			YES		2016-01-01 00:00:00 PS	2025-01-01 00:00:00 PS	2015-02-16 08:12:09 PS	2021-01-11 08:59:29 PS	FIRM
CONFIRMED	89006855 I	PGE PGE	PGEM	5	5 PACW	PGE	YEARLY FIRM	YEARLY	POINT_TO_POINT			NO		2020-01-01 00:00:00 PS	2025-01-01 00:00:00 PS	2019-04-25 07:17:06 PD	2020-12-08 09:12:44 PS	FIRM
CONFIRMED		PGE PGE	PGEM	5	5 PGE	PACW	YEARLY FIRM	YEARLY	POINT_TO_POINT			NO		2020-01-01 00:00:00 PS	2025-01-01 00:00:00 PS	2019-04-25 07:25:46 PD	2020-12-08 15:38:35 PS	FIRM
CONFIRMED	92809269	PGE PGE	PGEM	5	5 PGE	PACW	YEARLY FIRM	YEARLY	POINT_TO_POINT			NO		2021-01-01 00:00:00 PS	2026-01-01 00:00:00 PS	2020-12-14 13:01:21 PS	2020-12-28 15:37:48 PS	FIRM
CONFIRMED		PGE PGE	PWX	10	10 JOHNDAY	COB	YEARLY FIRM	YEARLY	POINT_TO_POINT			NO	PTP-36	2014-01-01 00:00:00 PS	2034-01-01 00:00:00 PS	2013-12-13 09:38:33 PS	2019-11-06 06:34:34 PS	FIRM
CONFIRMED	79082732	PGE PGE	PGEM	10	10 JOHNDAY	COB	YEARLY FIRM	YEARLY	POINT_TO_POINT			YES	PTP-34	2014-01-01 00:00:00 PS	2034-01-01 00:00:00 PS	2013-12-16 07:11:40 PS	2017-06-19 09:58:49 PD	FIRM
CONFIRMED	79084421 I	PGE PGE	EXGN	10	10 JOHNDAY	COB	YEARLY FIRM	YEARLY	POINT_TO_POINT			YES	PTP-35	2014-01-01 00:00:00 PS	2034-01-01 00:00:00 PS	2013-12-16 14:02:55 PS	2019-03-01 11:08:27 PS	FIRM
CONFIRMED	79091330		REMC	10	10 3011110711	COB	YEARLY FIRM	YEARLY	POINT_TO_POINT				PTP-38	2014-01-01 00:00:00 PS	2034-01-01 00:00:00 PS	2013-12-18 08:59:25 PS	2014-09-24 09:44:56 PD	FIRM
CONFIRMED	79091530 I		MSCG	10	10 301110711	COB	YEARLY FIRM	YEARLY	POINT_TO_POINT					2014-01-01 00:00:00 PS	2034-01-01 00:00:00 PS	2013-12-18 09:18:16 PS	2014-07-24 08:20:29 PD	FIRM
CONFIRMED	79091653 I		KPUD	11	11 JOHNDAY	COB		YEARLY	POINT_TO_POINT			-		2014-01-01 00:00:00 PS	2034-01-01 00:00:00 PS	2013-12-18 09:43:55 PS	2020-12-27 17:44:51 PS	FIRM
CONFIRMED	79091680		TEA	10	10 JOHNDAY	COB	YEARLY FIRM	YEARLY	POINT_TO_POINT				PTP-40	2014-01-01 00:00:00 PS	2034-01-01 00:00:00 PS	2013-12-18 09:49:45 PS	2020-12-27 17:47:58 PS	FIRM
CONFIRMED	79092316	PGE PGE	LEWI	11	11 7011110711	COB	YEARLY FIRM	YEARLY	POINT_TO_POINT				PTP-41	2014-01-01 00:00:00 PS	2034-01-01 00:00:00 PS	2013-12-18 11:53:17 PS	2020-12-27 17:44:00 PS	FIRM
CONFIRMED	79092388	PGE PGE	FCPD	10	10 JOHNDAY	COB	YEARLY FIRM	YEARLY	POINT_TO_POINT				PTP-42	2014-01-01 00:00:00 PS	2034-01-01 00:00:00 PS	2013-12-18 12:10:48 PS	2020-12-27 17:42:31 PS	FIRM
CONFIRMED	79092678	PGE PGE	COWL	10	10 JOHNDAY	COB	YEARLY FIRM	YEARLY	POINT_TO_POINT			NO	PTP-43	2014-01-01 00:00:00 PS	2034-01-01 00:00:00 PS	2013-12-18 13:39:12 PS	2017-09-29 14:03:54 PD	FIRM

Total: 34 Record(s) 01/13/2021 05:02:37 PM PST

NewSun Information Request 1.6

Please list all power purchase agreements under which PacifiCorp purchases power including:

- (a) Project name,
- (b) Nameplate capacity,
- (c) Term of power purchases,
- (d) Whether the purchase agreement was entered into pursuant to PURPA, an RFP, a bilateral agreement, or other,
- (e) Whether the facility is certified as a qualifying facility under PURPA,
- (f) Under what interconnection rules/process the facility was interconnected,
- (g) Whether the facility interconnected as ERIS or NRIS,
- (h) The cost of network upgrades funded under the interconnection agreement,
- (i) Whether the generator is eligible to receive refunds for its network upgrades funded under the interconnection agreement,
- (i) The type of transmission service,
- (k) The entity that submitted the transmission service request, and
- (1) The cost of network upgrades funded under the transmission service request.

Response to NewSun Information Request 1.6

PacifiCorp objects to this data request to the extent it is overly broad, unduly burdensome, and seeks information that is neither relevant nor reasonably calculated to lead to the discovery of admissible evidence. Notwithstanding and without waiving this objection, PacifiCorp responds as follows:

Please refer to Attachment NewSun 1.6 and to the Company's responses to the following NewSun Information Requests: NewSun Information Request 1.8 and supportive documentation, NewSun Information Request 1.10, NewSun Information Request 1.24, and NewSun Information Request 1.26.

NewSun Information Request 1.6

Please list all power purchase agreements under which PacifiCorp purchases power including:

- (a) Project name,
- (b) Nameplate capacity,
- (c) Term of power purchases,
- (d) Whether the purchase agreement was entered into pursuant to PURPA, an RFP, a bilateral agreement, or other,
- (e) Whether the facility is certified as a qualifying facility under PURPA,
- (f) Under what interconnection rules/process the facility was interconnected,
- (g) Whether the facility interconnected as ERIS or NRIS,
- (h) The cost of network upgrades funded under the interconnection agreement,
- (i) Whether the generator is eligible to receive refunds for its network upgrades funded under the interconnection agreement,
- (j) The type of transmission service,
- (k) The entity that submitted the transmission service request, and
- (1) The cost of network upgrades funded under the transmission service request.

1st Supplemental Response to NewSun Information Request 1.6

In further support of the Company's response to NewSun Information Request 1.6 dated January 21, 2021, the Company responds further as follows:

During discovery conferences with NewSun, PacifiCorp learned that many of NewSun's requests and their multiple subparts, including this request, were also intended to elicit information that would allow NewSun to trace specific generators through the interconnection and transmission service request (TSR) processes. As PacifiCorp explained, PacifiCorp does not compile information or keep records in this manner in the normal course of business. The additional information is voluminous and would be extremely burdensome to compile for all power purchase agreements (PPA), in the event it is even available. Even making the bare linkages from the

interconnection queue to the TSR queue for all PPAs would require time-consuming investigation by PacifiCorp personnel and must be done one generator at a time. Thus, to the extent NewSun is asking PacifiCorp to "link up" generators associated with all PPAs from the interconnection process through the TSR process, the data request is overly broad and unduly burdensome. To the extent NewSun further asks PacifiCorp to perform various types of analyses on each generator to generate data for NewSun about such linkages, the data request is likewise overly broad and unduly burdensome.

Nevertheless, and without waiving its objections to this request, PacifiCorp responds as follows:

Please refer to Attachment NewSun 1.6 1st Supplemental. Note: this attachment supplements the attachment provided with PacifiCorp's original response to NewSun Information Request 1.6 (Attachment NewSun 1.6) by "linking up" the interconnection queue numbers and TSR queue numbers for all PPAs in Oregon under which PacifiCorp purchases power, to the extent that information exists.

The interconnection queue number allows NewSun to access the generator's interconnection studies on the Open Access Same-Time Information System (OASIS), including detailed information about the generator, the generator's interconnection service request (including interconnection service type), and upgrades and upgrade costs identified by those studies. The associated TSR queue number allows NewSun to access the same generator's transmission service request on OASIS, including the requesting party, the type of transmission service requested, any upgrades needed to effectuate the transmission service, and the upgrade costs.

(a)		(b)	(c)	(d)	(e)	Supp	olemental Informat	on
				Agreement	Qualifying Facility	Interconnection	TSR Queue	
Name	State	MW	Term (Years) ¹	Source	(QF)	Queue Number ²	Number	AREF
Adams Solar Center, LLC	OR	10.00	20	PURPA	QF	556	2074	82489720
BC Solar, LLC	OR	8.00	20	PURPA	QF	585	1893	80039313
Bear Creek Solar Center, LLC	OR	10.00	20	PURPA	QF	580	1891	80035471
Big Top LLC	OR	1.65	20	PURPA	QF	145	1637	77877455
Biomass One, L.P.	OR	32.50	15	PURPA	QF	151	1638	77877558
Black Cap Solar	OR	2.00	16	RFP	Non-QF	392	1506	796780
Bly Solar Center, LLC	OR	8.50	20	PURPA	QF	566	1897	80103182
Butter Creek Power LLC	OR	4.95	20	PURPA	QF	145-B	1687	77979419
C Drop Hydro, LLC	OR	1.10	15	PURPA	QF	299	1640	77879485
Captain Jack Solar	OR	2.70	20	PURPA	QF	971	2845	92200965
Central Oregon Irrigation District (COID) (Juniper Ridge)	OR	5.00	20	PURPA	QF	248	1642	77879661
Central Oregon Irrigation District (COID) (Siphon)	OR	6.00	35	PURPA	QF	Legacy	2553	88223254
Chiloquin Solar, LLC	OR	9.90	20	PURPA	QF	612	2018	81774198
Chopin Wind, LLC	OR	10.00	20	PURPA	QF	547	1866	79672901
City of Albany, Department of Public Works	OR	0.50	15	PURPA	QF	Legacy	1647	77888579
City of Astoria	OR	0.03	15	PURPA	QF	352	1949	80781778
City of Portland, Portland Water Bureau	OR	0.03	15	PURPA	QF	296	1643	77880688
Combine Hills I, LLC	OR	41.00	20	RFP	Non-QF	17	1699	78002619
Deschutes Valley Water District (Opal Springs)	OR	5.93	15	PURPA	QF	1012	2453	86943452
Dorena Hydro, LLC	OR	6.10	20	PURPA	QF	364	1708	78040128
Douglas County Forest Products	OR	6.25	10	PURPA	QF	53	2838	91806183
Eagle Point Irrigation District (Nichols Gap)	OR	0.72	35	PURPA	QF	Legacy	1464	780644
EBD Hydro, LLC (45 Mile Hydro)	OR	2.99	15	PURPA	QF	372	1649	77888834
Elbe Solar Center, LLC	OR	10.00	20	PURPA	QF	556	2075	82489752
Farm Power Misty Meadow, LLC	OR	0.75	15	PURPA	QF	Off System	1695	77979576
Farmers Irrigation District	OR	4.80	15	PURPA	QF	643	1651	77888858
Finley Bioenergy, LLC	OR	4.80	15	PURPA	QF	Off System	1661	77888964
Four Corners Windfarm LLC	OR	10.00	20	PURPA	QF	104	1652	77888996
Four Mile Canyon Windfarm LLC	OR	10.00	20	PURPA	QF	106	1653	77889056
Galesville Dam (Douglas County)	OR	1.80	35	PURPA	QF	Legacy	1659	77913519
Klamath Falls Solar 1, LLC	OR	0.83	20	PURPA	QF	581	1965	80959436
Klamath Falls Solar 2, LLC	OR	2.90	20	PURPA	QF	624	1984	81235960
Lacomb Irrigation Limited Partnership	OR	0.96	35	PURPA	QF	Legacy	1724	78194569
Loyd Fery	OR	0.07	3	PURPA	QF	169	2829	91643352
Middle Fork Irrigation District	OR	3.70	15	PURPA	QF	Off System	1665	77913704
Millican Solar Energy, LLC	OR	60.00	20	RFP	Non-QF	850	2892	92863803
Monroe Hydro, LLC	OR	0.30	15	PURPA	QF	413	1707	78040097
Mountain Energy, Inc	OR	0.05	15	PURPA	QF	355	1681	77972311
Norwest Energy 2 LLC (Neff)	OR	9.90	15	PURPA	QF	571	1995	81269090
Norwest Energy 4 LLC (Bonanza)	OR	4.80	15	PURPA	QF	577	2002	81460501
Norwest Energy 7 LLC (Eagle Point)	OR	9.90	15	PURPA	QF	578	1982	81269111
Norwest Energy 9 LLC (Pendleton)	OR	6.00	15	PURPA	QF	588	1998	81369319
Old Mill Solar	OR	5.00	25	RFP	Non-QF	573	1974	81074553
OR Solar 2, LLC	OR	10.00	20	PURPA	QF	660	1986	81288775
OR Solar 3, LLC	OR	10.00	20	PURPA	QF	661	1987	81288790
OR Solar 5, LLC	OR	8.00	20	PURPA	QF	670	1992	81316143
OR Solar 6, LLC	OR	10.00	20	PURPA	QF	672	1991	81316106

(a)		(b)	(c)	(d)	(e)	Supp	ion	
				Agreement	Qualifying Facility	Interconnection	TSR Queue	
Name	State	MW	Term (Years) ¹	Source	(QF)	Queue Number ²	Number	AREF
OR Solar 8, LLC	OR	10.00	20	PURPA	QF	671	1989	81315991
Orchard Wind Farm 1, LLC	OR	10.00	20	PURPA	QF	650	2144	83693097
Orchard Wind Farm 2, LLC	OR	10.00	20	PURPA	QF	651	2145	83693107
Orchard Wind Farm 3, LLC	OR	10.00	20	PURPA	QF	652	2146	83693112
Orchard Wind Farm 4, LLC	OR	10.00	20	PURPA	QF	653	2147	83693115
Oregon Environmental Industries, LLC	OR	3.20	15	PURPA	QF	Legacy	1670	77921043
Oregon Institute of Technology (OIT)	OR	0.28	20	PURPA	QF	251	1671	77921092
Oregon Solar Land Holdings (OSLH, LLC)	OR	9.90	15	PURPA	QF	572	1997	81369264
Oregon State University	OR	6.50	10	PURPA	QF	174	2830	91643443
Oregon Trail Windfarm LLC	OR	9.90	20	PURPA	QF	102	1673	77921139
Pacific Canyon Windfarm LLC	OR	8.25	15	PURPA	QF	145-A	1674	77921166
Prineville Solar Energy, LLC	OR	40.00	20	RFP	Non-QF	621/731	2891	92863796
RES Ag - Oak Lea, LLC	OR	0.17	15	PURPA	QF	303	1667	77913784
Roseburg Forest Products Company - Dillard	OR	20.00	10	PURPA	QF	5	2603	88868661
Roseburg Landfill Gas Energy, LLC	OR	1.60	20	PURPA	QF	366	1677	77971685
Sand Ranch Windfarm LLC	OR	9.90	20	PURPA	QF	105	1678	77971814
Skysol, LLC	OR	55.00	20	PURPA	QF	721	2804	91223004
Sprague Hydro (North Fork Sprague)	OR	0.75	35	PURPA	QF	Legacy	1665	77913704
Stahlbush Island Farms, Inc	OR	1.60	4	PURPA	QF	176	2626	89079189
Swalley Irrigation District	OR	0.75	20	PURPA	QF	141	1683	77972520
Three Sisters Irrigation District (Watson Hydro) (700 kW)	OR	0.70	15	PURPA	QF	Off System	1788	79026180
Three Sisters Irrigation District (Watson Hydro) (200 kW)	OR	0.20	20	PURPA	QF	Off System	2456	86939977
Threemile Canyon Wind I LLC	OR	9.90	20	PURPA	QF	71	1932	80179624
TMF Biofuels	OR	4.80	10	PURPA	QF	360	1691	77973101
Tumbleweed Solar, LLC	OR	9.90	20	PURPA	QF	613	2017	81774191
Wagon Trail LLC	OR	3.30	20	PURPA	QF	147	1693	77973304
Ward Butte Windfarm LLC	OR	6.60	20	PURPA	QF	103	1684	77973341
Woodline Solar LLC	OR	8.00	20	PURPA	QF	609	1983	81235956

Notes:

- 1. Term is for current transaction as a number of the QFs are PPA renewals.
- 2. Legacy means prior to interconnection serial queue numbering system established by FERC

NewSun Information Request 1.8

For each generator that has submitted an interconnection application to PacifiCorp from January 1, 2014 until present please provide the following:

- (a) Queue Number,
- (b) Project name,
- (c) Date of interconnection request,
- (d) Interconnection request status,
- (e) Nameplate capacity,
- (f) Project location (county and state),
- (g) Generation technology type (wind, solar, etc),
- (h) Whether the project requested interconnection as a QF selling 100% of its net output to PacifiCorp (at initial application or at any point during the interconnection process) and whether it switched from this QF status to non-QF status, and the date it switched (or vice-versa, if it first requested interconnection as a non-QF and later switched to QF),
- (i) Any interconnection studies not publicly available online, including any prior studies which have been superseded by the studies that are posted on the website,
- (j) The interconnection agreement, if one was executed,
- (k) The developer or developers that submitted the interconnection application,
- (l) The in-service date, if operating, or scheduled commercial operation date if not,
- (m) Regarding NR and ER interconnection service:
 - 1. Which service type was requested at initial application,
 - 2. Which service type was studied in each of the Feasibility, System Impact, and Facilities studies,
 - 3. Which service type the project ultimately interconnected under,
- (n) Regarding network upgrade costs (identified in ER or NR or both):
 - 1. Estimated network upgrade costs in each of the Feasibility, System Impact, and Facilities studies,
 - 2. Final network upgrade costs assigned to the generator,

- 3. Whether the network upgrades were ultimately constructed or are under construction.
- (o) Provide a comparative table for all interconnection requests showing the key features of ER/NR (initial and final), interconnection and network upgrade costs (initial and final), withdrawal status, GIA execution, operational status, and QF status, and
- (p) Summarize the comparative outcomes of ER interconnection vs NR interconnection applications as relates interconnection and generator outcomes for projects in the following GIR size ranges: 0-10, 11-20, 21-40, 41-60, 61-80. Indicate withdrawal rates and summary numbers, interconnection agreements signed, and average final interconnection costs including network upgrades.

Response to NewSun Information Request 1.8

- (a) to (g) Please refer to PacifiCorp's Open Access Same-Time Information System (OASIS) webpage: http://www.oasis.oati.com/ppw/index.html.
- (h) The information requested can be obtained by reviewing the documents provided with the Company's responses to subparts (i), (j), (k) below, or by reviewing the studies posted on PacifiCorp's OASIS webpage.
- (i) Please refer to Attachment NewSun 1.8-1 which provides copies of studies superseded by follow on restudies.
- (j) Please refer to Attachment NewSun 1.8-2 which provides copies of interconnection agreements and amendments.
- (k) PacifiCorp objects to this subsection (k) because developer names are neither relevant or reasonably calculated to lead to the discovery of admissible evidence. Notwithstanding that objection, PacifiCorp states as follows: Developer names for those that have signed interconnection agreements are available on PacifiCorp's OASIS webpage. PacifiCorp cannot release the names of those that have not or did not sign an interconnection agreement as that is considered non-public information under the FERC interconnection procedures (see Section 38.5) and Oregon interconnection procedures (see Section 3.4).
- (l) Please refer to Attachment NewSun 1.8-3 which provides the in-service dates for those that have achieved commercial operation. Commercial operation dates (COD) for those that have not gone into service is available on

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PacifiCorp's OASIS webpage.

- (m) The information requested can be obtained by reviewing the documents provided with the Company's responses to subparts (i) and (j) or by reviewing the studies posted on PacifiCorp's OASIS webpage.
- (n) and (o) The information requested can be obtained by reviewing the documents provided with the Company's responses to subparts (i) and (j) or by reviewing the information posted on PacifiCorp's OASIS webpage.
- (p) The information requested can be obtained by reviewing the information posted on PacifiCorp's OASIS webpage.

NewSun Information Request 1.8

For each generator that has submitted an interconnection application to PacifiCorp from January 1, 2014 until present please provide the following:

- (a) Queue Number,
- (b) Project name,
- (c) Date of interconnection request,
- (d) Interconnection request status,
- (e) Nameplate capacity,
- (f) Project location (county and state),
- (g) Generation technology type (wind, solar, etc),
- (h) Whether the project requested interconnection as a QF selling 100% of its net output to PacifiCorp (at initial application or at any point during the interconnection process) and whether it switched from this QF status to non-QF status, and the date it switched (or vice-versa, if it first requested interconnection as a non-QF and later switched to QF),
- (i) Any interconnection studies not publicly available online, including any prior studies which have been superseded by the studies that are posted on the website,
- (j) The interconnection agreement, if one was executed,
- (k) The developer or developers that submitted the interconnection application,
- (l) The in-service date, if operating, or scheduled commercial operation date if not,
- (m) Regarding NR and ER interconnection service:
 - 1. Which service type was requested at initial application,
 - 2. Which service type was studied in each of the Feasibility, System Impact, and Facilities studies,
 - 3. Which service type the project ultimately interconnected under,
- (n) Regarding network upgrade costs (identified in ER or NR or both):
 - 1. Estimated network upgrade costs in each of the Feasibility, System Impact, and Facilities studies,
 - 2. Final network upgrade costs assigned to the generator,

- 3. Whether the network upgrades were ultimately constructed or are under construction.
- (o) Provide a comparative table for all interconnection requests showing the key features of ER/NR (initial and final), interconnection and network upgrade costs (initial and final), withdrawal status, GIA execution, operational status, and QF status, and
- (p) Summarize the comparative outcomes of ER interconnection vs NR interconnection applications as relates interconnection and generator outcomes for projects in the following GIR size ranges: 0-10, 11-20, 21-40, 41-60, 61-80. Indicate withdrawal rates and summary numbers, interconnection agreements signed, and average final interconnection costs including network upgrades.

1st Supplemental Response to NewSun Information Request 1.8

In further support of the Company's response to NewSun Information Request 1.8 dated January 21, 2021, the Company responds further as follows:

During discovery conferences with NewSun, PacifiCorp learned that many of NewSun's requests and their multiple subparts, including this request, were also intended to elicit information that would allow NewSun to trace specific generators through the interconnection and transmission service request (TSR) processes. As PacifiCorp explained, PacifiCorp does not compile information or keep records in this manner in the normal course of business. The additional information is voluminous and would be extremely burdensome to compile, in the event it is even available. Even making the bare linkages from the interconnection queue to the TSR queue for all interconnection requests would require time-consuming investigation by PacifiCorp personnel and must be done one generator at a time. Thus, to the extent NewSun is asking PacifiCorp to "link up" all generator interconnection requests from the interconnection process through the TSR process, the data request is overly broad and unduly burdensome. To the extent NewSun further asks PacifiCorp to perform various types of analyses on each generator to generate data for NewSun or the content of publicly available studies to which NewSun has access, the data request is likewise overly broad and unduly burdensome. Nevertheless, and without waiving its objections to this request, PacifiCorp responds as follows:

Please refer to the Company's 1st Supplemental response to NewSun Information Request 1.6.

NewSun Information Request 1.24

Referring to Joint Utilities/100 (Vail-Bremer-Foster-Larson-Ellsworth) at 30-31, please provide the following for each transmission service request received from January 1, 2014 until present:

- (a) Queue Number,
- (b) Project name,
- (c) Date of transmission service request,
- (d) Transmission service request status,
- (e) Nameplate capacity,
- (f) Project location (county and state),
- (g) Generation technology type (wind, solar, etc),
- (h) Type of transmission service,
- (i) Point of receipt and point of delivery,
- (i) Any transmission service request studies not publicly available online,
- (k) The transmission service agreement, if one was executed,
- (1) The in-service date, if operating, or scheduled commercial operation date if not,
- (m) Whether the output from the generator is delivered to PacifiCorp's retail load,
- (n) Whether the generator is a qualifying facility,
- (o) Whether the generator is on-system or off system,
- (p) Whether the generator is interconnected using ERIS or NRIS, and
- (q) Regarding network upgrade costs:
 - 1. Estimated network upgrade costs in any transmission service studies,
 - 2. Final network upgrade costs assigned to the request,

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3. Whether the network upgrades were ultimately constructed or are under construction.

Response to NewSun Information Request 1.24

PacifiCorp objects to this data request because the request is overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving these objections, PacifiCorp responds as follows:

The vast majority of the information requested is available on PacifiCorp's OASIS, including under the following tabs: Generation Interconnection, Network, and TSR Queue. In addition, please refer to the Company's response to NewSun Information Request 1.8 and supportive documentation.

NewSun Information Request 1.24

Referring to Joint Utilities/100 (Vail-Bremer-Foster-Larson-Ellsworth) at 30-31, please provide the following for each transmission service request received from January 1, 2014 until present:

- (a) Queue Number,
- (b) Project name,
- (c) Date of transmission service request,
- (d) Transmission service request status,
- (e) Nameplate capacity,
- (f) Project location (county and state),
- (g) Generation technology type (wind, solar, etc),
- (h) Type of transmission service,
- (i) Point of receipt and point of delivery,
- (i) Any transmission service request studies not publicly available online,
- (k) The transmission service agreement, if one was executed,
- (l) The in-service date, if operating, or scheduled commercial operation date if not,
- (m) Whether the output from the generator is delivered to PacifiCorp's retail load,
- (n) Whether the generator is a qualifying facility,
- (o) Whether the generator is on-system or off system,
- (p) Whether the generator is interconnected using ERIS or NRIS, and
- (q) Regarding network upgrade costs:
 - 1. Estimated network upgrade costs in any transmission service studies,
 - 2. Final network upgrade costs assigned to the request,

3. Whether the network upgrades were ultimately constructed or are under construction.

1st Supplemental Response to NewSun Information Request 1.24

PacifiCorp reiterates its objections to this data request. Subject to and without waiving those objections, PacifiCorp responds as follows:

Based on NewSun's description of the information it is seeking during the February 19, 2021, phone call, PacifiCorp stated that NewSun may find the OASIS list of designated network resources (DNR) most helpful, and PacifiCorp offered to provide additional specifics on that OASIS tab, as well as the other OASIS tabs it referenced in its original response. First, with respect to the list of DNRs, it can be found by clicking on the "Network" folder, then on the spreadsheet entitled "Designated Network Resources." While the Designated Network Resources spreadsheet shows the DNRs for all PacifiCorp transmission's network customers, PacifiCorp's impression is that NewSun is most interested in focusing on the list of DNRs for only one of those network customers, PacifiCorp's merchant function, which start on row 66 of the spreadsheet. With respect to NewSun's list of requested information about that subset of DNRs, it is available in that spreadsheet or other publicly available sources as follows:

- (1) item (b) is shown in column C that lists the network resource name;
- (2) for item (d), all resources listed in this spreadsheet have "confirmed" status because they are DNRs;
- (3) item (e) is shown in column F that lists total installed capacity;
- (4) item (f) is shown in columns D and E containing geographical and electrical locations:
- (5) item (g) is shown in column B that lists resource type and QF status;
- (6) for item (h), all resources in the spreadsheet secured network transmission, or DNR status;
- (7) for item (k), all network transmission service agreements between PacifiCorp transmission and its network customers are on file with FERC, and the network transmission service agreement most relevant to the DNRs on which NewSun is focused (i.e., between PacifiCorp's transmission function and PacifiCorp's merchant function) was last filed with FERC in Docket No. ER14-929;
- (8) for item (1), all resources in the spreadsheet are operating;
- (9) for item (m), all resources in the spreadsheet are used for load service consistent with the definition of network transmission service;
- (10) item (n) is shown in column B that lists resource type and OF status.
- (11) To access queue numbers (a), transmission service request dates (c), points of receipt and delivery (i), copies of transmission service studies (j), commercial operation dates (l), any network upgrades identified in studies (q, subpart 1), and whether network upgrades were ultimately constructed (q, subpart 3) for all transmission service requests, including those corresponding to the DNRs listed in

the above-referenced spreadsheet, click on the "TSR Queue" folder and then on the "TSR Queue" spreadsheet. With respect to the studies (q, subpart 1), links to all transmission service study reports are available in that same spreadsheet. With respect to whether construction is completed (q, subpart 3), the spreadsheet shows "OASIS status" in column H. As noted above, if a resource is listed as a DNR, then any construction contingencies have been completed because service has been granted.

- (12) With respect to (p), to access the selection of energy resource interconnection service or network resource interconnection service for all generator interconnection requests, including those corresponding to the DNRs listed in the above-referenced spreadsheet, click on the "Generator Interconnection" folder and examine either the "Serial Queue" folder (which houses information about pre-queue reform requests) or the "Cluster Queue" folder (which houses information about queue reform transition and prospective cluster studies).
- (13) With respect to (q) subpart (2), final network upgrade costs are not assigned to the requesting entity, but rather rolled into PacifiCorp's transmission rate base per FERC policy.

During conversations with NewSun during the discovery conferral process, PacifiCorp also learned that many of NewSun's requests and their multiple subparts, including this request, were also intended to elicit information that would allow NewSun to trace specific generators through the interconnection and transmission service request processes. As PacifiCorp explained, PacifiCorp does not compile information or keep records in this manner in the normal course of business. The additional information is voluminous and would be extremely burdensome to compile, in the event it is even available. Even making the bare linkages from the interconnection queue to the transmission service queue for all requests from 2014 to present would require timeconsuming investigation by PacifiCorp personnel and must be done one generator at a time, to the extent PacifiCorp even has the ability to make such linkages. Thus, to the extent NewSun is asking PacifiCorp to "link up" generators from interconnection process through the transmission service process, the request is overly broad and unduly burdensome. To the extent NewSun further asks PacifiCorp to perform various type of analyses on each generator to generate data for NewSun about such linkages, the request is likewise overly broad and unduly burdensome. Nevertheless, PacifiCorp continues to evaluate its ability to respond to this element of NewSun's request, and without waiving its objections, intends to provide an additional supplement to this response.

NewSun Information Request 1.24

Referring to Joint Utilities/100 (Vail-Bremer-Foster-Larson-Ellsworth) at 30-31, please provide the following for each transmission service request received from January 1, 2014 until present:

- (a) Queue Number,
- (b) Project name,
- (c) Date of transmission service request,
- (d) Transmission service request status,
- (e) Nameplate capacity,
- (f) Project location (county and state),
- (g) Generation technology type (wind, solar, etc),
- (h) Type of transmission service,
- (i) Point of receipt and point of delivery,
- (i) Any transmission service request studies not publicly available online,
- (k) The transmission service agreement, if one was executed,
- (l) The in-service date, if operating, or scheduled commercial operation date if not,
- (m) Whether the output from the generator is delivered to PacifiCorp's retail load,
- (n) Whether the generator is a qualifying facility,
- (o) Whether the generator is on-system or off system,
- (p) Whether the generator is interconnected using ERIS or NRIS, and
- (q) Regarding network upgrade costs:
 - 1. Estimated network upgrade costs in any transmission service studies,
 - 2. Final network upgrade costs assigned to the request,

3. Whether the network upgrades were ultimately constructed or are under construction.

2nd Supplemental Response to NewSun Information Request 1.24

In further support of the Company's prior responses to NewSun Information Request 1.24, the Company responds further as follows:

PacifiCorp reiterates its prior objections to this request. Nevertheless, and without waiving its objections to this request, PacifiCorp provides the following supplemental response:

Please refer to the Company's 1st Supplemental response to NewSun Information Request 1.6. Note: the referenced attachment (Attachment NewSun 1.6 1st Supplemental) identifies whether each generator is on-system or off-system, which was information requested in subpart (o) of NewSun Information Request 1.24, and the only subpart that PacifiCorp did not address in its 1st Supplemental response to NewSun Information Request 1.24.

NEWSUN DATA REQUEST NO. 5:

Please list all power purchase agreements under which Idaho Power purchases power including:

- a. Project name,
- b. Nameplate capacity,
- c. Term of power purchases,
- d. Whether the purchase agreement was entered into pursuant to PURPA, an RFP, a bi-lateral agreement, or other,
- e. Whether the facility is certified as a qualifying facility under PURPA,
- f. Under what interconnection rules/process the facility was interconnected,
- g. Whether the facility interconnected as ERIS or NRIS,
- h. The cost of network upgrades funded under the interconnection agreement,
- i. Whether the generator is eligible to receive refunds for its network upgrades funded under the interconnection agreement,
- j. The type of transmission service,
- k. The entity that submitted the transmission service request,
- I. The cost of network upgrades funded under the transmission service request.

IDAHO POWER COMPANY'S RESPONSE TO NEWSUN DATA REQUEST NO. 5:

Idaho Power objects that this request is overly broad, unduly burdensome, and requests information that is neither relevant nor reasonably calculated to lead to the discovery of admissible evidence.

Subject to and without waiving the foregoing objection, Idaho Power responds as follows: Idaho Power's responses to subparts a. – f. are in the table below:

a.	b.	c.	d.	e.	f.
	Nameplate	Contract	Contract	PURPA	Idaho Power tariff Schedule 72 ("Schedule 72") or Oregon Commission Generator Interconnection Rules
Project Name	Capacity	Term	Type	QF	("OCGIR")
American Falls Solar II, LLC	20.00	20	PURPA	Yes	Schedule 72
American Falls Solar, LLC	20.00	20	PURPA	Yes	Schedule 72
Arena Drop	0.45	20	PURPA	Yes	Schedule 72
Baker City Hydro	0.24	15	PURPA	Yes	Off-System
Baker Solar Center	15.00	20	PURPA	Yes	OCGIR
Bannock County Landfill	3.20	20	PURPA	Yes	Schedule 72
Barber Dam	3.70	35	PURPA	Yes	Schedule 72
Bennett Creek Wind Farm	21.00	20	PURPA	Yes	Schedule 72
Benson Creek Windfarm	10.00	20	PURPA	Yes	OCGIR
Birch Creek	0.07	20	PURPA	Yes	Schedule 72
Black Canyon #3	0.13	20	PURPA	Yes	Schedule 72
Black Canyon Bliss Hydro	0.03	20	PURPA	Yes	Schedule 72
Blind Canyon	1.63	20	PURPA	Yes	Schedule 72
Box Canyon	0.30	20	PURPA	Yes	Schedule 72

	1 .			1	1
a.	b.	C.	d.	e.	f.
					Idaho Power tariff
					Schedule 72 ("Schedule 72") or
					Oregon Commission
					Generator
	Nameplate	Contract	Contract	PURPA	Interconnection Rules
Project Name	Capacity	Term	Type	QF	("OCGIR")
Briggs Creek	0.60	20	PURPA	Yes	Schedule 72
Brush Solar	2.75	20	PURPA	Yes	OCGIR
Burley Butte Wind Park	21.30	20	PURPA	Yes	Schedule 72
Bypass	9.96	35	PURPA	Yes	Schedule 72
Camp Reed Wind Park	22.50	20	PURPA	Yes	Schedule 72
Canyon Springs	0.11	20	PURPA	Yes	Schedule 72
Cassia Wind Farm LLC	10.50	20	PURPA	Yes	Schedule 72
Cedar Draw	1.55	20	PURPA	Yes	Schedule 72
Clear Springs Trout	0.56	20	PURPA	Yes	Schedule 72
Cold Springs Windfarm	23.00	20	PURPA	Yes	Schedule 72
Crystal Springs	2.44	35	PURPA	Yes	Schedule 72
Curry Cattle Company	0.25	15	PURPA	Yes	Schedule 72
Desert Meadow Windfarm	23.00	20	PURPA	Yes	Schedule 72
Dietrich Drop	4.50	35	PURPA	Yes	Schedule 72
Durbin Creek Windfarm	10.00	20	PURPA	Yes	OCGIR
Eightmile Hydro Project	0.36	20	PURPA	Yes	Schedule 72
Elk Creek	2.00	35	PURPA	Yes	Schedule 72
Fall River	9.10	35	PURPA	Yes	Schedule 72
Fargo Drop Hydroelectric	1.27	20	PURPA	Yes	Schedule 72
Faulkner Ranch	0.87	35	PURPA	Yes	Schedule 72
Fighting Creek Landfill Gas	3.06	15	PURPA	Yes	Off-System
Fisheries Dev.	0.26	50	PURPA	Yes	Schedule 72
Fossil Gulch Wind	10.50	20	PURPA	Yes	Schedule 72
Geo-Bon #2	0.93	35	PURPA	Yes	Schedule 72
Golden Valley Wind Park	12.00	20	PURPA	Yes	Schedule 72
Grand View PV Solar Two	80.00	20	PURPA	Yes	Schedule 72
Grove Solar Center, LLC	6.00	20	PURPA	Yes	OCGIR
Hailey CSPP	0.04	5	PURPA	Yes	Schedule 72
Hammett Hill Windfarm	23.00	20	PURPA	Yes	Schedule 72
Hazelton A	8.10	15	PURPA	Yes	Schedule 72
Hazelton B	7.60	35	PURPA	Yes	Schedule 72
Head of U Canal Project	1.28	20	PURPA	Yes	Schedule 72
Hidden Hollow Landfill Gas	3.20	20	PURPA	Yes	Schedule 72
High Mesa Wind Project	40.00	20	PURPA	Yes	Schedule 72
Horseshoe Bend Hydro	9.50	35	PURPA	Yes	Schedule 72
Horseshoe Bend Wind	9.00	20	PURPA	Yes	Off-System
Hot Springs Wind Farm	21.00	20	PURPA	Yes	Schedule 72
Hyline Solar Center, LLC	9.00	20	PURPA	Yes	OCGIR
ID Solar 1	40.00	20	PURPA	Yes	Schedule 72
Jett Creek Windfarm	10.00	20	PURPA	Yes	OCGIR
Jim Knight	0.34	35	PURPA	Yes	Schedule 72
Koyle Small Hydro	1.25	20	PURPA	Yes	Schedule 72
Lateral #10	2.06	20	PURPA	Yes	Schedule 72

a.	b.	C.	d.	e.	f.
a.	D.	C.	u.	е.	Idaho Power tariff
					Schedule 72
					("Schedule 72") or
					Oregon Commission
					Generator
	Nameplate	Contract	Contract	PURPA	Interconnection Rules
Project Name	Capacity	Term	Type	QF	("OCGIR")
LeMoyne Hydro	0.08	10	PURPA	Yes	Schedule 72
Lime Wind Energy	3.00	20	PURPA	Yes	OCGIR
Little Wood River Ranch II	1.25	20	PURPA	Yes	Schedule 72
Little Wood Rvr Res	2.85	20	PURPA	Yes	Schedule 72
Littlewood / Arkoosh	0.87	35	PURPA	Yes	Schedule 72
Low Line Canal	8.20	20	PURPA	Yes	Schedule 72
Low Line Midway Hydro	2.50	20	PURPA	Yes	Schedule 72
Lowline #2	2.79	35	PURPA	Yes	Schedule 72
Magic Reservoir	9.07	35	PURPA	Yes	Schedule 72
Mainline Windfarm	23.00	20	PURPA	Yes	Schedule 72
Malad River	1.17	20	PURPA	Yes	Schedule 72
Marco Ranches	1.20	20	PURPA	Yes	Schedule 72
Mile 28	1.50	35	PURPA	Yes	Schedule 72
Milner Dam Wind	19.92	20	PURPA	Yes	Schedule 72
Mitchell Butte	2.09	45	PURPA	Yes	OCGIR
Mora Drop Hydro	1.85	20	PURPA	Yes	Schedule 72
Morgan Solar	3.00	20	PURPA	Yes	OCGIR
Mt. Home Solar 1, LLC	20.00	20	PURPA	Yes	Schedule 72
Mud Creek S and S	0.52	20	PURPA	Yes	Schedule 72
Mud Creek/White	0.21	35	PURPA	Yes	Schedule 72
Murphy Flat Power, LLC	20.00	20	PURPA	Yes	Schedule 72
North Gooding Main Hydro	1.30	20	PURPA	Yes	Schedule 72
Ontario Solar Center	3.00	20	PURPA	Yes	OCGIR
Open Range Solar Center	10.00	20	PURPA	Yes	OCGIR
Orchard Ranch Solar, LLC	20.00	20	PURPA	Yes	Schedule 72
Oregon Trail Wind Park	13.50	20	PURPA	Yes	Schedule 72
Owyhee Dam Cspp	5.00	40	PURPA	Yes	OCGIR
Payne's Ferry Wind Park	21.00	20	PURPA	Yes	Schedule 72
Pico Energy, LLC	2.13	10	PURPA	Yes	Schedule 72
Pigeon Cove	1.75	20	PURPA	Yes	Schedule 72
Pilgrim Stage Station Wind	10.50	20	PURPA	Yes	Schedule 72
Pocatello Waste	0.46	35	PURPA	Yes	Schedule 72
Pristine Springs #1	0.13	20	PURPA	Yes	Schedule 72
Pristine Springs #3	0.20	20	PURPA	Yes	Schedule 72
Prospector Windfarm	10.00	20	PURPA	Yes	OCGIR
Railroad Solar Center, LLC	4.50	20	PURPA	Yes	OCGIR
Reynolds Irrigation	0.26	35	PURPA	Yes	Schedule 72
Rock Creek #1	2.17	20	PURPA	Yes	Schedule 72
Rock Creek #2	1.90	35	PURPA	Yes	Schedule 72
Rockland Wind Farm	80.00	25	PURPA	Yes	Schedule 72
Ryegrass Windfarm	23.00	20	PURPA	Yes	Schedule 72
Sagebrush	0.43	35	PURPA	Yes	Schedule 72
Sahko Hydro	0.50	10	PURPA	Yes	Schedule 72

a.	b.	C.	d.	e.	f.
				<u> </u>	Idaho Power tariff
					Schedule 72
					("Schedule 72") or
					Oregon Commission
					Generator
Ducie et Neme	Nameplate	Contract	Contract	PURPA	Interconnection Rules
Project Name Salmon Falls Wind	Capacity	Term	Type	QF	("OCGIR")
	22.00	20	PURPA	Yes	Schedule 72
Sawtooth Wind Project	22.00	20	PURPA	Yes	Schedule 72
Schaffner	0.53	35	PURPA	Yes	Schedule 72
Shingle Creek	0.22	5	PURPA	Yes	Schedule 72
Shoshone #2	0.58	35	PURPA	Yes	Schedule 72
Shoshone CSPP	0.36	20	PURPA	Yes	Schedule 72
Simcoe Solar, LLC	20.00	20	PURPA	Yes	Schedule 72
Simplot - Pocatello	15.90	3	PURPA	Yes	Schedule 72
SISW LFGE	5.00	20	PURPA	Yes	Schedule 72
Snake River Pottery	0.09	8	PURPA	Yes	Schedule 72
Snedigar	0.50	20	PURPA	Yes	Schedule 72
Tamarack CSPP	6.25	20	PURPA	Yes	Schedule 72
Tasco - Nampa	2.00	5	PURPA	Yes	Schedule 72
Tasco - Twin Falls	3.00	1	PURPA	Yes	Schedule 72
Thousand Springs Wind Park	12.00	20	PURPA	Yes	Schedule 72
Thunderegg Solar Center, LLC	10.00	20	PURPA	Yes	OCGIR
Tiber Dam	7.50	20	PURPA	Yes	Off-System
Trout-Co	0.24	35	PURPA	Yes	Schedule 72
Tuana Gulch Wind Park	10.50	20	PURPA	Yes	Schedule 72
Tuana Springs Expansion	35.70	20	PURPA	Yes	Schedule 72
Tunnel #1	7.00	42	PURPA	Yes	OCGIR
Two Ponds Windfarm	23.00	20	PURPA	Yes	Schedule 72
Vale Air Solar Center, LLC	10.00	20	PURPA	Yes	OCGIR
Vale I Solar	3.00	20	PURPA	Yes	OCGIR
White Water Ranch	0.16	20	PURPA	Yes	Schedule 72
Willow Spring Windfarm	10.00	20	PURPA	Yes	OCGIR
Wilson Lake Hydro	8.40	35	PURPA	Yes	Schedule 72
Yahoo Creek Wind Park	21.00	20	PURPA	Yes	Schedule 72
Coleman Hydro	0.80	20	PURPA	Yes	Schedule 72
Durkee Solar	3.00	20	PURPA	Yes	OCGIR
MC6 Hydro	2.10	20	PURPA	Yes	Schedule 72
Elkhorn Wind	100.65	25	RFP	N/A	OCGIR
Neal Hot Springs Unit #1	22	25	RFP	N/A	OCGIR
Raft River Unit #1	13	25	RFP	N/A	Off-System
Jackpot Holdings, LLC	120	20	Bi-Lateral	N/A	Schedule 72

g. All PURPA Qualifying Facilities and Non-PURPA facilities interconnected to Idaho Power's system and under contract to deliver their generation to the Company are designated as Network Resources.

h. See the Excel spreadsheet attached to the Company's Response to NIPPC DR No. 7 and Confidential Excel spreadsheet attached to the Company's Response to Staff's IR No. 12.

- i. See Idaho Power's response to subpart h.
- j. Idaho Power holds network transmission capacity on behalf of all PURPA Qualifying Facilities and Non-PURPA facilities under contract to deliver their generation to Idaho Power pursuant to the completion of any transmission system upgrades, at the generation facility's expense, required to serve network load with generation from the contracted facility.
- k. Idaho Power's Power Supply business unit submits the transmission service request for facilities under contract to deliver their generation to the Company.
- I. See Idaho Power's response to subpart h.

NEWSUN DATA REQUEST NO. 5:

Please list all power purchase agreements under which Idaho Power purchases power including:

- a. Project name,
- b. Nameplate capacity,
- c. Term of power purchases,
- d. Whether the purchase agreement was entered into pursuant to PURPA, an RFP, a bi-lateral agreement, or other,
- e. Whether the facility is certified as a qualifying facility under PURPA.
- f. Under what interconnection rules/process the facility was interconnected,
- g. Whether the facility interconnected as ERIS or NRIS,
- h. The cost of network upgrades funded under the interconnection agreement,
- i. Whether the generator is eligible to receive refunds for its network upgrades funded under the interconnection agreement,
- j. The type of transmission service,
- k. The entity that submitted the transmission service request,
- I. The cost of network upgrades funded under the transmission service request.

<u>IDAHO POWER COMPANY'S SUPPLEMENTAL RESPONSE TO NEWSUN DATA REQUEST NO. 5</u>:

- I. Idaho Power's prior response to parts h and I cross-referenced the Company's attachment in response to Staff IR No. 12, which provided network upgrade actual costs. For the purpose of clarification:
 - The provided costs for PURPA projects in Idaho Power's process constitute both the interconnection-related network upgrades and the transmission service-related network upgrades.
 - For the PPAs and the exchange agreement listed in the Company's response to Staff IR No. 12 (Elkhorn, Neal Hot Springs and Arrowrock), there were no transmission service-related network upgrades for the service Idaho Power currently provides.
 - For the Jackpot Holdings agreement included in the original response to this DR, the estimated transmission service network upgrade costs total \$10,483,000.

NEWSUN DATA REQUEST NO. 7:

For each generator that has submitted an interconnection application to Idaho Power from January 1, 2014 until present please provide the following:

- a. Queue Number,
- b. Project name,
- c. Date of interconnection request,
- d. Interconnection request status,
- e. Nameplate capacity,
- f. Project location (county and state),
- g. Generation technology type (wind, solar, etc),
- h. Whether the project requested interconnection as a QF selling 100% of its net output to Idaho Power (at initial application or at any point during the interconnection process) and whether it switched from this QF status to non-QF status, and the date it switched (or vice-versa, if it first requested interconnection as a non-QF and later switched to QF).
- i. Any interconnection studies not publicly available online, including any prior studies which have been superseded by the studies that are posted on the website,
- j. The interconnection agreement, if one was executed,
- k. The developer or developers that submitted the interconnection application,
- I. The in-service date, if operating, or scheduled commercial operation date if not,
- m. Regarding NR and ER interconnection service:
 - 1. Which service type was requested at initial application,
 - 2. Which service type was studied in each of the Feasibility, System Impact, and Facilities studies,
 - 3. Which service type the project ultimately interconnected under,
- n. Regarding network upgrade costs (identified in ER or NR or both):
 - 1. Estimated network upgrade costs in each of the Feasibility, System Impact, and Facilities studies,
 - 2. Final network upgrade costs assigned to the generator.
 - 3. Whether the network upgrades were ultimately constructed or are under construction,
- o. Provide a comparative table for all interconnection requests showing the key features of ER/NR (initial and final), interconnection and network upgrade costs (initial and final), withdrawal status, GIA execution, operational status, and QF status.
- p. Summarize the comparative outcomes of ER interconnection vs NR interconnection applications as relates interconnection and generator outcomes for projects in the following GIR size ranges: 0-10, 11-20, 21-40, 41-60, 61-80. Indicate withdrawal rates and summary numbers, interconnection agreements signed, and average final interconnection costs including network upgrades.

IDAHO POWER COMPANY'S RESPONSE TO NEWSUN DATA REQUEST NO. 7:

Idaho Power objects that this request is overly broad, unduly burdensome, and requests information that is neither relevant nor reasonably calculated to lead to the discovery of admissible evidence. Idaho Power also objects that this request, and in particular parts (o) and (p), asks the Company to develop information and prepare analysis that would be unduly burdensome and does not have a high degree of relevance to the case.

Subject to and without waiving the foregoing objection, Idaho Power responds as follows: See the Excel spreadsheet attached to this response for the requested information, as well as the attached interconnection studies.

a	b	с	d	e	f	g	h	i	j	k	ı	m	n	0	р
Queue#	Name	Date of Interconnection Request	Interconnection request status	Nameplate Capacity	County	Gen Type	QF- Or non-QF	Any studies not Available	GIA	Developer Name	In-Service Date of interconnection request	ER/NR	Estimated Cost for FeSR, SISR, FSR	Objecting to providing	Objecting to providing
424	REDACTED	01/22/14	In Service	10.00	Malheur,	Solar	QF	Yes	Yes	REDACTED	12/31/16	NR	FeSR \$1,070,000		, , , , , ,
425	REDACTED	01/22/14	In Service	4.50	Or Malheur, Or	Solar	QF	Yes	Yes	REDACTED	12/31/16	NR	FSR \$1,888,000 SISR \$6,850,000 FSR \$3,220,800		
458	REDACTED	12/30/14	Withdrawn	20.00	Malheur,	Solar	QF	No	N/A	REDACTED	12/1/16	NR			
470	REDACTED	02/26/15	Withdrawn	10.00	Or Malheur, Or	Solar	QF	No	N/A	REDACTED	9/30/16	NR	\$ - \$ 521,000.00		
471	REDACTED	03/16/15	Withdrawn	10.00	Malheur,	Solar	QF	No	N/A	REDACTED	9/3/16	NR	¢ 3 100 000 00		
472	REDACTED	03/16/15	Withdrawn	10.00	Or Malheur, Or	Solar	QF	No	N/A	REDACTED	9/30/16	NR	\$ 2,100,000.00 \$ 21,500,000.00		
473	REDACTED	03/25/15	Withdrawn	10.00	Malheur, Or	Solar	QF	No	N/A	REDACTED	12/31/16	NR	\$ 19,830,000.00		
474	REDACTED	03/26/15	Withdrawn	5.00	Malheur, Or	Solar	QF	No	N/A	REDACTED	9/30/16	NR	\$ 4,130,000.00		
475	REDACTED	03/26/15	Withdrawn	10.00	Malheur, Or	Solar	QF	No	N/A	REDACTED	9/30/16	NR	\$ 2,610,000.00		
476	REDACTED	03/26/15	Withdrawn	10.00	Malheur,	Solar	QF	No	N/A	REDACTED	9/30/16	NR			
477	REDACTED	03/31/15	Withdrawn	10.00	Or Malheur, Or	Solar	QF	No	N/A	REDACTED	12/31/15	NR	\$ 350,000.00 \$ 4,050,000.00		
479	REDACTED	03/31/15	Withdrawn	10.00	Malheur,	Solar	QF	No	N/A	REDACTED	12/31/15	NR	¢ 1300,000,00		
480	REDACTED	04/03/15	Withdrawn	10.00	Or Malheur, Or	Solar	QF	No	N/A	REDACTED	12/31/15	NR	\$ 1,300,000.00 \$ 5,105,000.00		
481	REDACTED	04/03/15	Withdrawn	10.00	Malheur, Or	Solar	QF	No	N/A	REDACTED	12/31/15	NR	\$ 4,900,000.00		
486	REDACTED	04/10/15	Withdrawn	10.00	Malheur, Or	Solar	QF	No	N/A	REDACTED	12/31/15	NR	\$ 1,470,000.00		
489	REDACTED	04/20/15	Withdrawn	6.00	Malheur, Or	Solar	QF	No	N/A	REDACTED	9/30/16	NR	FeSR \$1,900,000		
490	REDACTED	04/20/15	Withdrawn	4.00	Malheur, Or	Solar	QF	No	N/A	REDACTED	3/30/16	NR	FeSR \$1,544,000		
491	REDACTED	04/22/15	Withdrawn	10.00	Malheur, Or	Solar	QF	No	N/A	REDACTED	9/30/16	NR	\$ 3,250,000.00		
493	REDACTED	05/05/15	Withdrawn	10.00	Malheur, Or	Solar	QF	No	N/A	REDACTED	12/31/15	NR	\$ 510,000.00		
495	REDACTED	05/15/15	Withdrawn	11.00	Baker, Or	Solar	QF	No	N/A	REDACTED	12/31/15	NR	\$ 522,000.00		
496	REDACTED	05/15/15	Withdrawn	10.00	Baker, Or	Solar	QF	No	N/A	REDACTED	12/31/15	NR			
497	REDACTED	05/15/15	Withdrawn	6.60	Malheur, Or	Solar	QF	No	N/A	REDACTED	12/31/15	NR	FeSR \$1,805,000 FeSR \$890,000		
498	REDACTED	05/15/15	Withdrawn	8.25	Baker, Or	Solar	QF	No	N/A	REDACTED	12/31/15	NR	FeSR \$1,131,000		
499	REDACTED	05/15/15	Withdrawn	4.40	Malheur, Or	Solar	QF	No	N/A	REDACTED	12/31/15	NR	FeSR \$2,530,000		
500	REDACTED	05/15/15	Withdrawn	6.50	Baker, Or	Solar	QF	No	N/A	REDACTED	12/31/15	NR	FeSR \$1,524,000		
504 505	REDACTED REDACTED	10/06/15 10/06/15	Withdrawn Withdrawn	10.00 3.00	Durkee Baker, Or	Solar Solar	QF QF	No No	N/A N/A	REDACTED REDACTED	12/31/16 12/31/16	NR NR	N/A		
506	REDACTED	10/06/15	Withdrawn	3.00	Baker, Or	Solar	QF	No	N/A	REDACTED	12/31/16	NR	N/A		
507	REDACTED	10/06/15	Withdrawn	15.00	Baker, Or		QF	No	N/A N/A	REDACTED	12/31/16	NR	N/A		
	REDACTED									REDACTED			N/A		
508	REDACTED	10/06/15	Withdrawn	10.00	Baker, Or	Solar	QF	No	N/A	REDACTED	12/31/16	NR	N/A		

510	REDACTED	01/22/16	In-Service	3.00	Malheur, Or	Solar	QF	Yes	Yes	REDACTED	12/31/16	NR	SISR \$359600
511	REDACTED	01/29/16	In-Service	3.00	Malheur, Or	Solar	QF	Yes	Yes	REDACTED	12/31/16	NR	FeSR \$214,000 SISR \$208,800 FSR \$276,000
512	REDACTED	01/29/16	In-Service	2.75	Malheur, Or	Solar	QF	Yes	Yes	REDACTED	12/31/16	NR	FeSR \$202,000 SISR \$197,000 FSR \$ 220,800
519	REDACTED	10/18/16	In-Service	15.00	Baker, Or	Solar	QF	Yes	Yes	REDACTED	12/31/17	NR	SISR \$1,820,400 FSR \$1,756,420
525	REDACTED	08/04/17	In-Service	3.00	Malheur, Or	Solar	QF	Yes	Yes	REDACTED	12/31/19	NR	SISR \$885,508 FSR \$795,000
532	REDACTED	05/03/18	FSR	2.95	Malheur, Or	Solar	QF	Yes	No	REDACTED	12/12/20	ER/NR	FeSR \$234,379 SISR \$285,360 FSR \$355,000
536	REDACTED	06/25/18	Withdrawn	23.00	Malheur, Or	Solar	QF	Yes	N/A	REDACTED	11/30/19	ER/NR	2,638,800 SISR \$18,734,824
537	REDACTED	06/25/18	Withdrawn	80.00	Malheur, Or	Solar	QF	Yes	N/A	REDACTED	11/30/19	NR	N/A
538	REDACTED	07/10/18	Withdrawn	2.00	Baker, Or	Hydro	QF	No	N/A	REDACTED	7/31/21	NR	N/A
539	REDACTED	09/24/18	Withdrawn	10.00	Malheur, Or	Solar	QF	Yes	N/A	REDACTED	N/A	NR	FeSR \$1,781,760
541	REDACTED	10/29/18	Withdrawn	10.00	Malheur, Or	Solar	QF	Yes	N/A	REDACTED	N/A	NR	FeSR \$1,392,000 SISR \$\$1,230,250 FSR \$1,299,741
546	REDACTED	12/03/18	Withdrawn	3.00	Baker, Or	Solar	QF	Yes	N/A	REDACTED	12/1/19	NR	FeSR \$1,134,480 SISR \$\$1,810,249 FSR \$460,713
547	REDACTED	02/18/19	Withdrawn	3.00	Baker, Or	Hydro	QF	No	N/A	REDACTED	N/A	NR	\$ -
556	REDACTED	05/06/19	Active	30.00	Grant, Or	Solar	QF	Yes	N/A	REDACTED	11/30/21	NR	4,512,211 SISR \$3,456,600
562	REDACTED	08/05/19	Active	42.00	Malheur, Or	Solar	QF	Yes	N/A	REDACTED	6/1/22	NR	Still in SIS Phase
566	REDACTED	08/30/19	Active	5.00	Malheur, Or	Solar	QF	Yes	N/A	REDACTED	12/31/20	NR	FeSR \$690,000 SISR \$690,000
575	REDACTED	12/20/19	Withdrawn	50	Union, Or	Solar	QF	No	N/A	REDACTED	12/31/23	NR	4030,000
													\$ -

NEWSUN DATA REQUEST NO. 18:

Referring to Joint Utilities/100 (Vail-Bremer-Foster-Larson-Ellsworth) at 30-31, please provide the following for each transmission service request received from January 1, 2014 until present:

- a. Queue Number,
- b. Project name,
- c. Date of transmission service request,
- d. Transmission service request status,
- e. Nameplate capacity,
- f. Project location (county and state),
- g. Generation technology type (wind, solar, etc),
- h. Type of transmission service,
- i. Point of receipt and point of delivery,
- j. Any transmission service request studies not publicly available online,
- k. The transmission service agreement, if one was executed,
- I. The in-service date, if operating, or scheduled commercial operation date if not,
- m. Whether the output from the generator is delivered to Idaho Power's retail load,
- n. Whether the generator is a qualifying facility,
- o. Whether the generator is on-system or off system,
- p. Whether the generator is interconnected using ERIS or NRIS,
- q. Regarding network upgrade costs:
 - 1. Estimated network upgrade costs in any transmission service studies,
 - 2. Final network upgrade costs assigned to the request,
 - 3. Whether the network upgrades were ultimately constructed or are under construction

IDAHO POWER COMPANY'S RESPONSE TO NEWSUN DATA REQUEST NO. 18:

Idaho Power objects that this request is overly broad, unduly burdensome, and requests information that is neither relevant nor reasonably calculated to lead to the discovery of admissible evidence.

Subject to and without waiving the foregoing objections, Idaho Power provides the following response: Please reference the Excel file and confidential studies included as attachments to this request as well as information provided in NewSun Data Request No. 8.

Updated:	1/15/2021																			
	TSR QUEUE			MW						OASIS REQ	GI#				OPERATION			On-		
ACTIVE / PENDING	DATE (C)	OASIS	CUST	GRANTED (or to be	START DATE	STOP DATE	POR (I)	POD (I)	TYPE (H)	STATUS (D)	GI# (A)	ASSOCIATED PROJECT (B)	GI MW (E)	GI Type (G)	DATE ACTUAL or PROJECTED	ER or NR (M) (P)	QF - Y/N (N)	System/Off- System	COUNTY (F)	Note
Closed	03/12/14	79373894	IPCL	granted)	01/01/17	01/01/47	IPCOGEN	IPCO	N	Withdrawn	GI# 423	Railroad Solar Center	10	Solar	(L) 12/31/16	NR	N/A	(O) N/A	Malheur, OR	
GI/TSN	03/12/14	79373897	IPCL	10	01/01/17	01/01/47	IPCOGEN	IPCO	N	ANNULLED (Active)	GI# 424	Thunderegg Solar Center	10	Solar	12/31/16	NR	Y	ON	Malheur, OR	
GI/TSN	04/02/14	79522296	IPCL	2	04/01/15	04/01/35	MDSK	IPCO	N	ANNULLED (Active)		Head of the U Hydro	1.54	Hydro	12/31/16	NR	Υ	ON	Jerome, ID	
GI/TSN	04/18/14	79601281	IPCL	5	01/01/17	01/01/47	IPCOGEN	IPCO	N	ANNULLED (Active)	GI# 425	Railroad Solar Center	5	Solar	12/31/16	NR	Υ	ON	Malheur, OR	
GI/TSN	05/15/14	79714495	IPCL	10	10/01/14	10/01/44	IPCOGEN	IPCO	N	ANNULLED (Active)		Willow Spring Windfarm	10	Wind	12/30/13	NR	Y	ON	Baker, OR	
GI/TSN	05/22/14	79744603	IPCL	10	11/01/15	11/01/35	IPCOGEN	IPCO	N	ANNULLED (Active)	GI# 411	Grandview Solar 5	10	Solar	11/01/15	NR	Y	ON	Elmore. ID	
GI/TSN	05/22/14	79744607	IPCL	10	11/01/15	11/01/35	IPCOGEN	IPCO	N	ANNULLED (Active)	GI# 418	Grandview Solar 5A	10	Solar	11/01/15	NR	· v	ON	Elmore, ID	
Closed	06/20/14	79867168	IPCI	10	06/01/17	06/01/37	IPCOGEN	IPCO	N	Withdrawn		Clark Canyon Hydro	2.8	Hvdro	06/01/17	NR	N/A	N/A	Beaverhead, MT	
GI/TSN	07/17/14	79985424	IPCL	40	01/01/16	01/01/16	IPCOGEN	IPCO	N	ANNULLED (Active)		Boise City Solar	40	Solar	01/01/16	NR	Y	ON	Ada, ID	
GI/TSN	08/29/14	80158614	IPCL	40	10/01/14	10/01/34	MDSK	IPCO	N N	ANNULLED		•	40		01/01/16	NR	· ·	ON		
Closed	08/29/14	80158614 80289606	BPAP	1	07/01/16	07/01/21	HMWY	KPRT	P	(Active) Withdrawn		Black Canyon Bliss	1	Hydro	01/01/16	N/A	N/A	N/A	Gooding, ID	
GI/TSN	10/14/14	80343697	IPCL	20	01/01/17	01/01/37	IPCOGEN	IPCO	N	ANNULLED (Active)	GI# 435	Mt. Home Solar	20	Solar	12/31/16	NR	Υ	ON	Elmore, ID	
Closed Closed	10/14/14 10/14/14	80343700 80343719	IPCL IPCL		01/01/17 01/01/17	01/01/37 01/01/37	BRDY IPCOGEN	IPCO IPCO	N N	Withdrawn Withdrawn	GI# 436 GI# 437	Pocatello Solar Clark 1	20 70	Solar Solar	12/31/16 12/31/16	NR NR	N/A N/A	N/A N/A	Power, ID Elmore, ID	
Closed	10/14/14	80343724	IPCL		01/01/17	01/01/37	IPCOGEN	IPCO	N	Withdrawn	GI# 438	Clark 2	20	Solar	12/31/16	NR	N/A	N/A	Elmore, ID	
Closed	10/14/14	80347576	IPCL		01/01/17	01/01/37	IPCOGEN	IPCO	N	Withdrawn	GI# 439	Clark 3	30	Solar	12/31/16	NR	N/A	N/A	Elmore, ID	
Closed	10/14/14	80343729	IPCL		01/01/17	01/01/37	IPCOGEN	IPCO	N	Withdrawn	GI# 440	Clark 4	20	Solar	12/31/16	NR	N/A	N/A	Elmore, ID	
GI/TSN	10/14/14	80343731	IPCL	20	09/01/16	09/01/36	IPCOGEN	IPCO	N	ANNULLED (Active)	GI# 426	Murphy Flat North	20	Wind	12/31/16	NR	Υ	ON	Owyhee, ID	
GI/TSN	10/14/14	80343734	IPCL	20	09/01/16	09/01/36	IPCOGEN	IPCO	N	ANNULLED (Active)	GI# 428	Simcoe Solar	20	Solar	12/31/16	NR	Υ	ON	Elmore, ID	
GI/TSN	10/14/14	80343736	IPCL	20	09/01/16	09/01/36	BRDY	IPCO	N	ANNULLED (Active)	GI# 431	American Falls Solar	20	Solar	12/31/16	NR	Y	ON	Power, ID	
GI/TSN	10/14/14	80343737	IPCL	20	09/01/16	09/01/36	BRDY	IPCO	N	ANNULLED (Active)		American Falls Solar II	20	Solar	12/31/16	NR	Y	ON	Power, ID	
GI/TSN	10/14/14	80343741	IPCL	20	09/01/16	09/01/36	IPCOGEN	IPCO	N	ANNULLED (Active)	GI# 441	Orchard Ranch	20	Solar	12/31/16	NR	Y	ON	Elmore, ID	
GI/TSN	10/14/14	80375928	IPCL	20	12/15/14	12/15/34	MDSK	IPCO	N	ANNULLED (Active)	GI# 429	Blind Canvon	20	Hvdro	12/15/14	NR	· ·	ON		
GUISN	10/23/14	00373920	IFCL		12/13/14	12/15/54	WIDSK	IFCO	IN	Service	GI# 429	Billid Callyon		riyulo	12/13/14	INIX		ON	Gooding, ID	
Closed	10/24/14	81825283	PAC	124	11/04/15	07/01/19	KPRT	HURR	Р	Ended						N/A	N/A	N/A		
									P	Service							N/A			
Closed	10/24/14	80381490	PAC	76	11/04/15	07/01/19	BORA	LAGRANDE	Р	Ended Service						N/A		N/A		
Closed	10/24/14	81825297	PAC	241	11/04/15	07/01/20	BORA	HURR	Р	Ended Service						N/A	N/A	N/A		
Closed	10/24/14	81071591	PAC	9	11/04/15	07/01/20	BORA	LAGRANDE		Ended Service						N/A	N/A	N/A		
Closed	10/24/14	80381517	PAC	60	11/04/15	05/01/20	BORA	LAGRANDE	Р	Ended						N/A	N/A	N/A		
Active	01/06/15	81841623	BPAP	100	07/01/16	07/01/21	M500	KPRT	Р	Confirmed ANNULLED						N/A	N/A	N/A		
GI/TSN	01/27/15	80763458	IPCL	16	03/01/15	03/01/16	BRDY	IPCO	N	(Active) ANNULLED	PRE	Pocatello C	15.9	Hydro		NR	Υ	ON		
GI/TSN	03/05/15	81292439	IPCL	1	07/01/15	07/01/30	IPCWGEN	IPCO	N	(Active) ANNULLED	(NOT IPCC		0.24	Hydro		NR	Υ	ON	Baker, OR	
GI/TSN	03/10/15	80932383	IPCL	1	05/01/15	05/01/30	MDSK	IPCOSID Substation/O	N	(Active)	PRE	Prestine Springs 1 & 3	0.3	Hydro		NR	Υ	ON		
Active	04/08/15	77111	PAC	1	04/01/16	04/01/21	HURR	BBLPR	N	Confirmed						N/A	N/A	N/A		
Closed		81676557	IPCM	75	01/01/16		OBBLPR		Р	Service Ended						N/A	N/A	N/A		
Closed	08/06/15	81516519	IPCI		12/01/16	12/01/36	IPCWGEN	IPCO	N		GI# 474	Arcadia Solar	5	Solar	09/30/16	NR	N/A	N/A	Malheur OR	
Closed		81516529	IPCL		12/01/16	12/01/36	IPCWGEN	IPCO	N	Withdrawn		Moores Hallow Solar	10	Solar	09/30/16	NR	N/A	N/A	Malheur, OR	
Closed	08/06/15	81516537	IPCL		12/01/16	12/01/36	IPCWGEN	IPCO	N	Withdrawn		Evergreen Solar	10	Solar	09/30/16	NR	N/A	N/A	Malheur, OR	
									N											
Closed	08/06/15	81516542	IPCL		12/01/16	12/01/36	IPCWGEN	IPCO	N	Withdrawn		Little Valley Road	10	Solar	09/30/16	NR	N/A	N/A	Malheur, OR	
Closed	08/06/15	81516547	IPCL		12/01/16	12/01/36	IPCWGEN	IPCO	N	Withdrawn		Kingman Solar	6 - 7?	Solar	09/30/16	NR	N/A	N/A	Malheur, OR	
Closed	08/06/15	81516552	IPCL		12/01/16	12/01/36	IPCWGEN	IPCO	N	Withdrawn		John Day Solar	5	Solar	09/30/16	NR	N/A	N/A	Malheur, OR	
Closed	08/06/15	81516566	IPCL		12/01/16	12/01/36	IPCWGEN	IPCO	N	Withdrawn		Lagoon	4	Solar	03/30/16	NR	N/A	N/A	Malheur, OR	
Closed	08/06/15	81516574	IPCL		12/01/16	12/01/36	IPCWGEN	IPCO	N	Withdrawn ANNULLED		Jamieson Solar North Gooding Main	4 - 10?	Solar	09/30/16	NR	N/A	N/A	Malheur, OR	
GI/TSN	08/12/15	81538589	IPCL	2	04/01/17	04/01/37	MDSK	IPCO	N	(Active)	GI# 494	Hydro	2	Hydro	05/01/16	NR	Y	ON	Lincoln, ID	
Closed	10/27/15	81819764	IPCL		10/01/16	10/01/36	IPCWGEN	IPCO	N	Withdrawn		Fairway Solar	10	Solar	10/01/16	NR	N/A	N/A	Malheur, OR	
Closed	10/27/15	81819769	IPCL		10/01/16	10/01/36	IPCWGEN	IPCO	N	Withdrawn	GI# 477	Malheur River Solar	10	Solar	10/01/16	NR	N/A	N/A	Malheur, OR	

Closed	10/27/15	81819771	IPCL		10/01/16	10/01/36	IPCWGEN	IPCO	N	Withdrawn	GI# 473	Old Ferry Road Solar	10	Solar	10/01/16	NR	N/A	N/A	Malheur, OR	
Closed	07/29/16	83177020	BPAP		10/05/18	10/01/28	BPAGEN	BPASID	N	Withdrawn						N/A	N/A	N/A		
Closed		83292959	BPAP		01/01/18		BPAGEN	BPASID	N							N/A	N/A	N/A		
Closed		83292959	BPAP		01/01/18		LaGrande	BPASID	N							N/A	N/A	N/A		
GI/TSN	08/31/16	83355472	IPCL	1	02/01/17	02/01/37	IPCOGEN	IPCO	N	ANNULLED (Active)	GI# 516	HK Hydro (MudCreek)	0.45	Hydro	02/01/17	NR	Υ	ON	Buhl, ID	
GI/TSN	09/12/16	83420605	IPCL	1	02/01/17	02/01/37	IPCOGEN	IPCO	N	ANNULLED (Active)	GI# 515	Shoshone Hydro	0.45	Hydro	02/01/17	NR	· ·	ON	Shoshone, ID	
GI/TSN	09/29/16	83513243	IPCI	3	10/01/19	10/01/39	IPCOGEN	IPCO	N	ANNULLED (Active)	GI# 512	Brush Solar	2.45	Solar	05/01/19	NR	Y	ON	Malheur, OR	
GI/TSN		83513245	IPCL	3			IPCOGEN			ANNULLÉD				Solar	05/01/19	NR	· ·	ON	, ,	
021011	09/26/16			-	10/01/19	10/01/39		IPCO	N	(Active) ANNULLED	GI# 510	Morgan Solar	3				Y		Malheur, OR	
GI/TSN	09/29/16	83513249	IPCL	3	10/01/19	10/01/39	IPCOGEN	IPCO	N	(Active)	GI# 511	Vale Solar 1 Interconnects with BPA	3	Solar	04/01/19	NR		ON	Malheur, OR	
Closed	12/19/16	83942715	IPCL		07/01/17	07/01/27	LGBP	IPCO	N	Withdrawn ANNULLED		via OTEC @ LaGrande				N/A	N/A	NA		
GI/TSN	02/03/17	84202449	IPCL	5	04/01/18	04/01/39	IPCOGEN	IPCO	N	(Active)	GI# 501	SISW LFGE	5	Landfill Gas	02/16/18	NR	Y	ON	Cassia, ID	
Closed	02/13/17	84255201	WRE		12/01/18	12/01/23	MDSK	LAGRANDE	Р	Withdrawn ANNULLED						N/A	N/A	NA		
GI/TSN	04/21/17	84663747	IPCL	1	08/01/17	08/01/22	IPCOGEN	IPCO	N	(Active) ANNULLED	GI# 521	Shingle Creek	0.22	Hydro	08/01/17	NR	Υ	ON	Riggins, ID	
GI/TSN	06/06/17	84950225	IPCL	15	12/01/19	12/01/39	IPCWGEN	IPCO	N	(Active) ANNULLED	GI# 519	Baker City 1 Solar	15	Solar	12/01/19	NR	Υ	ON	Baker, OR Twin Falls,	
GI/TSN	09/14/17	85541393	IPCL	3	01/01/18	01/01/38	IPCOGEN	IPCO	N	(Active) Service	GI# 522	Rock Creek Hydro	2.5	Hydro	04/01/18	NR	Y	ON	ID ID	
Closed	09/19/17	85567603	IPCL	87	01/01/18	01/01/21	JEFF	IPCOEAST	Р	Ended						N/A	N/A	N/A		
Active	11/13/17	85861887	SCLM	101	01/01/19	01/01/24	LYPK	LAGRANDE	Р	Confirmed ANNULLED						N/A	N/A	N/A		
GI/TSN	01/04/18	86149971	IPCL	3	01/01/19	01/01/39	IPCOGEN	IPCO	N	(Active)	GI# 525	Ontario Solar	3	Solar	12/31/19	NR	Υ	ON	Malheur, OR	
GI/TSN	01/18/18	86227834	IPCL	1	06/01/18	06/01/33	IPCOGEN	IPCO	N	ANNULLED (Active)	GI# 527	Curry Cattle Hydro	1	Hydro	06/01/18	NR	Υ	ON	Twin Falls, ID	
Pending	03/22/18	86599443	IPCL	3	08/01/19	08/01/39	IPCOGEN	IPCO	N	Study	GI# 526 (W GI# 559) Warm Springs Hydro MC6	3	Hydro	08/01/19	NR	Υ	ON	Ada, ID	
GI/TSN	03/27/18	86631056	IPCL	7	06/01/18	06/01/38	IPCOGEN	IPCO	N	ANNULLED (Active)	GI# 528	Tamarack CSPP	6.25	Bio	06/01/18	NR	Υ	ON	Tamarack, ID	
Active Active	06/19/18 06/19/18	87136778 87136803	PAC PAC	76 124	07/01/19 07/01/19	07/01/24 07/01/24	BORA KPRT	LAGRANDE HURR	P P	Confirmed Confirmed						N/A N/A	N/A N/A	N/A N/A		
GI/TSN	08/16/18	87494741	IPCL	1	11/01/18	11/01/38	IPCOGEN	IPCO	N	ANNULLED (Active)	GI# 529	Clear Springs Trout Hydro	1	Hydro	11/01/18	NR	Υ	ON	Twin Falls, ID	
GI/TSN	12/06/18	88144333	IPCL	1	01/01/19	01/01/39	IPCOGEN	IPCO	N	ANNULLED (Active)	GI# 540	Canyon Springs Hydro	1	Hydro	01/01/19	NR	Υ	ON	Twin Falls, ID	
GI/TSN	12/27/18	88272359	IPCL	16	03/01/19	03/01/22	BRDY	IPCOEAST	N	ANNULLED (Active)	PRE	Simplot Pocatello	16	Hvdro		NR	Υ	ON		
GI/TSN	01/03/19	88311973	IPCL	1	02/01/19	02/01/39	IPCOGEN	IPCO	N	ANNULLED (Active)	GI# 543	Box Canvon	1	Hydro		NR	· Y	ON	Twin Falls, ID	
GI/TSN	01/09/19	88350247	IPCI	1	04/01/19	04/01/39	IPCOGEN	IPCO	N	ANNULLED (Active)	GI# 544	Black Canyon	1	Hydro	04/01/19	NR	· Y	ON	Twin Falls,	
GI/TSN	01/09/19	88438508	IPCL	2						ANNULLED		•	-	-	04/01/19	NR	Y	ON	Twin Falls,	
GI/ISN	01/24/19	88438508	IPCL	2	04/01/19	04/01/39	IPCOGEN	IPCO	N	(Active)	GI# 542	Koyle Hydro Mallad	2	Hydro	04/01/19	NK	Y	ON	ID	
GI/TSN	03/14/19	88753942	IPCL	2	05/01/19	05/01/29	IPCOGEN	IPCO	N	ANNULLED (Active)	GI# 545	River/Ravenscroft Hydro	0.89	Hydro	05/01/19	NR	Υ	ON	Gooding, ID	
Pending	03/14/19	88754178	IPCL	-120	12/01/22	12/01/62	M345	IPCO	N	Study	GI# 502,503	N,S,W,E,Annex 3,5 Carter Solar, (Jackpot)	120	Solar	12/01/22	NR*	Υ	ON	Twin Falls, ID	*Studied as NR in the GI Process Studied as NR in a separate TSR
Closed	03/14/19	88754196	IPCL		12/01/22	12/01/62	M345	IPCO	N	Withdrawn	GI# 549	Franklin Solar	100	Solar	12/01/22	NR	N/A	N/A	Twin Falls, ID	
Active	03/20/19	88788941	PAC	60	05/01/20	05/01/25	BORA	LAGRANDE	Р	Confirmed						N/A	N/A	N/A		
GI/TSN	05/10/19	89096492	IPCL	2	06/01/19	06/01/39	IPCOGEN	IPCO	N	ANNULLED (Active)	GI# 550	Little Mac Power/Cedar Draw	1.45	Hydro	06/01/19	NR	Υ	ON	Twin Falls, ID	
Pending	05/31/19	89224555	IPCL	-3	03/01/22	03/01/42	IPCWGEN	IPCO	N	Study	GI# 546	Durkee Solar	3	Solar	03/01/22	NR	Υ	ON	Baker, OR	
Active	06/25/19	89375962	PAC	241	07/01/20	07/01/25	BORA	HURR	Р	Confirmed						N/A	N/A	N/A		
Active	06/25/19	89375972	PAC	9	07/01/20	07/01/25	BORA	LAGRANDE	Р	Confirmed ANNULLED						N/A	N/A	N/A	Twin Falls,	
GI/TSN	08/15/19	89700005	IPCL	2	11/01/19	11/01/39	IPCOGEN	IPCO	N	(Active)	GI# 555	Pigeon Cove	1.75	Hydro	11/01/19	NR	NR	ON	ID ID	
Active	10/01/19	89988212	IPCM	75	01/01/21	01/01/26	IPCOGEN	LGBP	Р	Confirmed						N/A	N/A	N/A		
Closed	10/08/19	90030618	BPAP		02/01/20	10/01/28	LaGrande	BPASID	N	Withdrawn						N/A	N/A	N/A		
Closed	10/08/19	90030618	BPAP		02/01/20	10/01/28	LaGrande	BPASID	N	Withdrawn						N/A	N/A	N/A	T : 5 "	
GI/TSN	10/09/19	90037205	IPCL	9	05/01/20	05/01/40	IPCOGEN	IPCO	N	ANNULLED (Active)	GI# 565	Lowline Hydro Renewal	8.2	Hydro	05/01/20	NR	Υ	ON	Twin Falls, ID	
GI/TSN	10/17/19	90083068	IPCL	1	01/01/20	01/01/40	IPCOGEN	IPCO	N	ANNULLED (Active)	GI# 564	Snedigar Hydro	0.52	Hydro	02/01/20	NR	Υ	ON	Twin Falls, ID	
GI/TSN	10/24/19	90125554	IPCL	1	11/01/19	11/01/39	IPCOGEN	IPCO	N	ANNULLED (Active)	GI# 569	Birch Creek	0.07	Hydro	11/01/19	NR	Υ	ON	Gooding, ID	
GI/TSN	11/20/19	90300550	IPCL	3	03/01/20	03/01/40	IPCOGEN	IPCO	N	ANNULLED (Active)	GI# 571	Little Wood River Hydro	2.85	Hydro	03/01/20	NR	Υ	ON	Twin Falls, ID	
GI/TSN	11/27/19	90347300	IPCL	1	12/01/19	12/01/27	IPCOGEN	IPCO	N	ANNULLED (Active)	GI# 574	Snake River Pottery	0.86	Hydro	12/01/19	NR	Υ	ON	Twin Falls, ID	
Active Pending	12/27/19 03/24/20	90526553 91080678	IPCL IPCL	16 (7)	01/01/21 07/01/21	01/01/26 07/01/41	JEFF IPCOGEN	IPCOEAST IPCO	P N	Confirmed Study	GI# 577	Hidden Hollow Exp	6.4	Landfill Gas	01/01/21	N/A NR	N/A Y	N/A ON	Ada, ID	
GI/TSN	04/10/20	91190199	IPCL	1	05/01/20	05/01/40	IPCOGEN	IPCO	N	ANNULLED (Active)	GI# 468 GI# 469	Pristine Springs 1 & 3	1	Hydro	03/05/15	NR	Υ	ON	Twin Falls, ID	
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												ER - Big Sky Dairy								
Closed	04/22/20	91259756	VTOL		07/01/20	07/01/25	MDSK	M345	Р	Withdrawn		Digester ER - West Point Dairy		Bio		ER	N/A	N/A		
Closed	04/22/20	91259779	VTOL		06/01/21	06/01/26	MDSK	M345	Р	Withdrawn		Digester		Bio		ER	N/A	N/A		
GI/TSN	05/01/20	91320718	IPCL	3	05/04/20	05/04/20	IPCOGEN	IPCO	N	ANNULLED (Active)	GI# 579	Lateral 10	3	Hydro	05/04/20	NR	Υ	ON	Twin Falls, ID	
GI/TSN	05/29/20	91503122	IPCL	1	06/01/20	06/01/40	IPCOGEN	IPCO	N	ANNULLED (Active)	GI# 582	Jim Knight	1	Hydro	06/01/20	NR	Υ	ON	Twin Falls, ID	
GI/TSN	05/29/20	91503127	IPCL	1	06/01/20	06/01/40	IPCOGEN	IPCO	N	ANNULLED (Active)	GI# 581	Sagebrush	1	Hydro	06/01/20	NR	Υ	ON	Twin Falls, ID	
GI/TSN	06/08/20	91568650	IPCL	1	06/23/20	06/23/40	IPCOGEN	IPCO	N	ANNULLED (Active)	GI# 583	City of Hailey	0.37	Hydro	06/22/20	NR	Υ	ON	Blaine, ID	
GI/TSN	06/08/20	91568655	IPCL	1	06/26/20	06/26/40	IPCOGEN	IPCO	N	ANNULLED (Active)	GI# 584	LeMoyne Hydro	0.75	Hydro	06/26/20	NR	Υ	ON	Twin Falls, ID	
Pending	06/08/20	91568973	IPCL	(1)	06/01/21	02/01/41	TNDY	IPCO	N	Study	GI# 548	Coleman Hydro	0.75	Hydro	06/01/21	NR	Υ	ON	Lemhi, ID	
Active	06/17/20	91629500	BPAP	100	07/01/21	07/01/26	SMLK	KPRT	Р	Confirmed						N/A	N/A	N/A		
Active	06/17/20	91629850	BPAP	100	07/01/21	07/01/26	M500	KPRT	Р	Confirmed		ER - Big Sky Dairy				N/A	N/A	N/A		
Closed	06/17/20	91631476	VTOL		09/01/20	09/01/25	MDSK	M345	Р	Withdrawn		Digester ER - West Point Dairy		Bio		ER	N	ON		
Closed	06/17/20	91631480	VTOL		06/01/21	06/01/26	MDSK	M345	Р	Withdrawn		Digester		Bio		ER	N	ON		
GI/TSN	07/09/20	91779329	IPCL	2	08/01/20	08/01/40	IPCOGEN	IPCO	N	(Active)	GI# 585	Marco Ranches	1.2	Hydro	08/01/20	NR	Υ	ON	Jerome, ID	
GI/TSN	07/30/20	91919530	IPCL	1	08/01/20	08/01/40	IPCOGEN	IPCO	N	ANNULLED (Active)	GI# 586	White Water Ranch	0.16	Hydro	08/01/20	NR	Υ	ON	Hagerman, ID	
Closed	08/24/20	92090561	VTOL		11/01/20	11/01/25	MDSK	M345	Р	Withdrawn		ER - Big Sky Dairy Digester		Bio		ER	N	ON		
Pending	08/27/20	92112952	BPAP	(8)	10/01/20	10/01/28	LaGrande	BPASID	N	Study						N/A	N/A	N/A		
Closed	08/28/20	92117932	PWX		04/01/21	04/01/26	VALLAWALLA	M345	Р	Withdrawn						N/A	N/A	N/A		
Closed	08/28/20	92117933	PWX		04/01/21	04/01/24	BPAT.NWMT	M345	Р	Withdrawn						N/A	N/A	N/A		
GI/TSN	09/24/20	92284548	IPCL	1	10/01/20	10/01/40	IPCOGEN	IPCO	N	ANNULLED (Active)	GI# 589	Briggs Creek	0.33	Hydro	10/01/20	NR	Υ	ON	Twin Falls, ID	
Active	10/12/20	92390250	MCPI	71	01/01/21	01/01/22	JEFF	BORA	Р	Confirmed						N/A	N/A	N/A		
Active	10/13/20	92487896	VTOL	2	01/01/21	01/01/26	MDSK	M345	Р	Confirmed		ER - Big Sky Dairy Digester		Bio		ER	N	ON		Delivered Off System
Pending	10/28/20	92502052	PWX	(100)	04/01/21	04/01/24	LOLO	BORA	P	Study						N/A	N/A	N/A		
Pending	10/28/20	92502053	PWX	(100)	04/01/21	04/01/24	LOLO	BORA	Р	Study						N/A	N/A	N/A		
Closed	11/25/20	92690893	PWX	(100)	04/01/21	04/01/26	SMLK	BORA	Р	Withdrawn						N/A	N/A	N/A		
GI/TSN	12/18/20	92836383	IPCL	1	01/01/21	01/01/41	IPCOGEN	IPCO	N	ANNULLED (Active)	GI# 593	Mud Creek	0.28	Hydro	01/01/21	NR	Y	ON	Bannock, ID	
GI/TSN	12/18/20	92836394	IPCL	1	01/01/21	01/01/41	IPCOGEN	IPCO	N	ANNULLED (Active)		Pocatello Waste	0.26	Bio	01/01/21	NR	Y	ON	Twin Falls,	
Pending	12/18/20	92838888						BORA	N P		JI# 082	FULATERO WASTE	0.3	DIU	01/01/21	N/A			IU	
			MSCG	(100)	04/01/21	04/01/23	SMLK			Study							N/A	N/A		
Pending	12/18/20	92838889	MSCG	(50)	04/01/21	04/01/23	LOLO	M345	Р	Study						N/A	N/A	N/A		
Pending	12/18/20	92838891	MSCG	(50)	04/01/21	04/01/23	LaGrande	M345	Р	Study		ER - West Point Dairy				N/A	N/A	N/A		
Pending	01/04/21	92945096	VTOL	(2)	10/01/21	10/01/26	MDSK	M345 Substation/	Р	Study		Digester		Bio		ER	N	ON		Delivered Off System
Pending	01/04/21	92946345	PAC	(1)	04/01/21	04/01/26	HURR	OBBLPR	N	Study						N/A	N/A	N/A		
Pending	01/06/21	92958045	MCPI	(71)	01/01/22	01/01/23	JEFF	BORA	Р	Study						N/A	N/A	N/A		
Pending	01/12/21	92993105	PWX	(100)	04/01/21	04/01/26	SMLK	BORA	Р	Study						N/A	N/A	N/A	Twin Falls,	
Pending	01/12/21	92993158	IPCL	(1)	02/01/21	02/01/41	IPCOGEN	IPCO	N	Study	GI# 594	Sahko Hydro	0.625	Hydro	02/01/21	NR	Υ	ON	ID	

Attachment C

Joint Utility responses to relevant other party DRs

October 2, 2020

TO: Caroline Moore

Public Utility Commission of Oregon

FROM: Robert Macfarlane

Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC UM 2032 PGE Response to OPUC Data Request No. 012 Dated September 10, 2020

Request:

- 12. Please refer to Vail-Bremer-Foster-Larson-Ellsworth/7 of the Joint Utility Opening Testimony, which provides the FERC definition of Network Upgrades, "[T]he 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." Please list all Network Upgrades that the Company has constructed since 2010. Please also include Network Upgrades that would match this definition if not for the reference to large generating facility. Please include the following information for each year since the upgrade was in service through 2019 inclusive:
 - a. Interconnection queue number of the generator(s) that triggered the upgrade.
 - b. Whether the generator(s) are owned by the Company.
 - c. Cost of the upgrade borne by the generator(s).
 - d. Cost of the upgrade borne by ratepayers.
 - e. Cost of the upgrade borne by other transmission customers.
 - f. Transmission revenues generated by the upgrade.

Response:

PGE has not constructed any Network Upgrades on its transmission system associated with a generator interconnection since 2010.

October 2, 2020

TO: Caroline Moore

Public Utility Commission of Oregon

FROM: Robert Macfarlane

Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC UM 2032 PGE Response to OPUC Data Request No. 013 Dated September 10, 2020

Request:

- 13. Please refer to Vail-Bremer-Foster-Larson-Ellsworth/7 of the Joint Utility Opening Testimony, which provides the FERC definition of network upgrades, "[T]he 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." Please identify all Network Upgrades matching this definition that the Company included or seeks to include in rate base in the Company's most recently filed General Rate Case. Please also include Network Upgrades that would match this definition if not for the reference to large generating facility. For all Network Upgrades identified, please indicate the following:
 - a. Description of upgrade, including location, equipment, size or rating, and cost.
 - b. How that investment was identified.
 - c. How the costs were allocated to Oregon and includable in state revenue requirements, as well as each state where PacifiCorp serves retail load.

Response:

PGE has not constructed any Network Upgrades on its transmission system associated with generator interconnection that the Company included or sought to include in its most recently filed general rate case.

January 14, 2021

TO: Irion Sanger

Northwest and Intermountain Power Producers Coalition ("NIPPC")

FROM: Robert Macfarlane

Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC UM 2032 PGE Response to NIPPC Data Request No. 033 Dated December 31, 2020

Request:

Please refer to Joint Utilities/300, Wilding-Macfarlane-Williams/37:16 ("Nevertheless, utilities regularly enter into PPAs with non-QF generators."). Please identify all PPAs that PGE has entered into with non-QF generators in Oregon or otherwise for the purpose of serving PGE's Oregon customers. Please indicate the date upon which PGE entered into the PPA, the counter parties, and amount of electricity purchased.

Response:

PGE objects that this request is overly broad and unduly burdensome in that it contains no temporal limitation. PGE also objects that the relevance of the requested information is unclear. Notwithstanding and without waiving these objections, PGE responds as follows:

Please see Confidential Attachment 33A. The attachment includes only long-term PPAs, not those entered into for market purchases under an enabling agreement such as WSPP. The attachment includes those PPAs under which PGE received deliveries in 2020 and PPAs for resources that are not yet online. Some of the PPAs are call/capacity contracts so the MWH provided does not represent the full ability of the resource. Finally, the MWH purchased under each PPA may vary from year-to-year, particularly for those PPAs that are for variable energy resources.

REDACTED UM 2032 PGE to NIPPC DR 033 Attach

Resource/Contract Name	Counterparty	2020 MWH	Effective Date	Notes
Bakeoven Solar 1 & 2	Avangrid	Redacted	10/12/18	Not Yet Online
Bellevue Solar	Bellevue Solar, LLC	Redacted	8/18/10	
BPA Capacity Contracts	BPA	Redacted	1/9/18	1/1/2021 start date
Covanta	Covanta Marion, Inc.	Redacted	5/31/14	
Douglas 2020 PPA	Douglas County PUD	Redacted	5/8/20	1/1/2021 start date
Wells 2018 Agreement	Douglas County PUD	Redacted	3/29/17	
Summer/Winter Peaking Capacity	Avangrid	Redacted	1/9/18	
Klondike Wind	Avangrid	Redacted	1/1/15	
Montague Solar	Avangrid	Redacted	11/26/19	Not Yet Online
Outback Solar	Outback Solar, LLC	Redacted	5/9/12	
Pelton & Round Butte	Confederated Tribes of Warm Springs	Redacted	3/21/14	
Pelton Re-Regulation Dam	Confederated Tribes of Warm Springs	Redacted	3/21/14	
Portland Hydro	City of Portland	Redacted	9/1/17	
Priest Rapids Project	Grant County PUD	Redacted	11/2/04	
Vansycle Wind	NextEra	Redacted	11/27/96	
Wheatridge Wind	NextEra	Redacted	9/11/20	Partial Year - COD in Nov
Wheatridge Solar & Storage	NextEra	Redacted	2/11/19	Not Yet Online
Yamhill Solar	Yamhill Solar, LLC	Redacted	8/18/10	

Attachment D

Email data request supplements from Idaho Power and PacifiCorp dated May 17, 2021 and May 26, 2021 respectively

Subject: RE: [External] UM 2032 DR Clarifications

Date: Wednesday, May 26, 2021 at 4:10:27 PM Pacific Daylight Time

From: Lisa Hardie
To: Marie Barlow

CC: Kruse, Karen (PacifiCorp), Scarsella, Carla

Marie,

You have asked what rules apply to a facility that is certified as or eligible to be a QF but sells under a contract that is something other than a QF PPA, such as an RFP or bi-lateral agreement. QFs that invoke PURPA's must-purchase obligation to sell 100 percent of their power to a directly interconnected utility under a state-jurisdictional QF PPA are subject to state interconnection rules. Otherwise, QFs are subject to FERC-jurisdictional interconnection rules (and market competition).

You also stated that NewSun is interested in the treatment of facilities (presumably, referring to interconnection-driven Network Upgrades) across states. Please see PacifiCorp's response to OPUC DR 7, where PacifiCorp describes the treatment of Network Upgrades in other states in more detail.

Many thanks, Lisa

Lisa D. Hardie

McDowell Rackner Gibson PC

419 SW 11th Ave, Suite 400 Portland, OR 97205 Direct: 503-290-3629 | Mobile: 541-921-5424

Website: www.mrg-law.com | Email: lisa.hardie@mrg-law.com

Pronouns: she/her/hers

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From: Marie Barlow <mbarlow@newsunenergy.net>

Sent: Monday, May 24, 2021 9:15 AM **To:** Lisa Hardie < lisa.hardie@mrg-law.com>

Cc: Kruse, Karen (PacifiCorp) < Karen.Kruse@pacificorp.com>; Scarsella, Carla

<Carla.Scarsella@pacificorp.com>

Subject: Re: [External] UM 2032 DR Clarifications

Lisa,

Thanks for the reply on question 6. Are you able to provide a response on my second question regarding facilities certified as QFs but not selling under a QF-PPA?

As I explained earlier, these questions were aimed at understanding the relationship between and treatment of all the various types of PPAs, interconnections, and transmission arrangements. The treatment of facilities

may differ across states since states have jurisdiction over certain types of interconnections at issue in this case. If another state treats QFs differently than how they are currently treated in Oregon, then it is relevant to the policy decision the Oregon Commission is being asked to make in this case. Similarly, if an upgrade in one state provides benefits to the system as a whole or other users and beneficiaries, a similar upgrade in Oregon could also provide such benefits. Further, PacifiCorp's witnesses state, in testimony, that Oregon's implementation is consistent with its experience in other states. I cannot verify this factually without reviewing the data across all states.

Marie P. Barlow | In-House Counsel, Policy & Regulatory Affairs | she/her NewSun Energy | Office: (503) 420-7734 | Cell: (509) 389-4847

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From: Lisa Hardie < lisa.hardie@mrg-law.com>

Date: Friday, May 14, 2021 at 4:01 PM

To: Marie Barlow < mbarlow@newsunenergy.net >

Cc: Kruse, Karen (PacifiCorp) < Karen.Kruse@pacificorp.com>, Scarsella, Carla

<<u>Carla.Scarsella@pacificorp.com</u>> **Subject:** RE: UM 2032 DR Clarifications

Marie,

With respect to New Sun Information Request 1.6, PacifiCorp understood from conversations with NewSun that the request was intended to elicit information that would allow NewSun to trace specific generators through the interconnection and TSR processes so that NewSun could better understand the connections between the two. (Several other requests propounded by NewSun ostensibly had this same purpose.)

PacifiCorp objected to the request on the ground that it was overly broad and unduly burdensome. PacifiCorp explained why the request was extremely overbroad and burdensome, and identified the challenges associated with responding to the request in both its discussions with NewSun and in PacifiCorp's responses to Information Request 1.6 – see PacifiCorp's Supplemental Response to NewSun Information Request 1.6.

Nevertheless, PacifiCorp was interested in providing NewSun with information illustrating the connections NewSun was trying to understand. PacifiCorp investigated the issue, and provided NewSun with the "linkages" for interconnection queue numbers and TSR queue numbers for all PPAs in Oregon under which PacifiCorp purchases power, to the extent that information exists. The information provided is precisely the type of information NewSun stated it was looking for, and the response provides examples of the relationships NewSun stated it was trying to understand.

PacifiCorp believes that its response is reasonable and adequate, and does not believe that a request for information for generators beyond Oregon is reasonable, appropriate, or justified in this instance. If NewSun disagrees, however, PacifiCorp would be interested in hearing NewSun's reasoning.

Many thanks,

Lisa D. Hardie

McDowell Rackner Gibson PC

419 SW 11th Ave, Suite 400 Portland, OR 97205 Direct: 503-290-3629 | Mobile: 541-921-5424

Website: www.mrg-law.com | Email: lisa.hardie@mrg-law.com |

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From: Marie Barlow < mbarlow@newsunenergy.net >

Sent: Tuesday, May 11, 2021 4:08 PM

To: Jordan Schoonover < <u>jordan@mrg-law.com</u> >; Lisa Rackner < <u>lisa@mrg-law.com</u> >; <u>donald.light@pgn.com</u>; Adam Lowney < <u>adam@mrg-law.com</u> >; Walker, Donovan < <u>DWalker@Idahopower.com</u> >; Lisa Hardie

lisa.hardie@mrg-law.com>; karen.kruse@pacificorp.com; carla.scarsella@pacificorp.com

Subject: [External] UM 2032 DR Clarifications

Good Afternoon All,

I had a few clarifying questions regarding your supplemental responses to our data requests and was hoping you would be able to answer these in order to limit the issues for the motion to compel. These are all relating to the three questions NewSun asked of each utility regarding PPAs (PGE DR 6, PAC DR 6, IPC DR 5), interconnections (PGE DR 7, PAC DR 8, IPC DR 7) and transmission arrangements (PGE DR 19, PAC DR 24, IPC DR 18) in order to understand the relationship between all three.

First, the requests were meant to cover more than just Oregon-sited projects. In response to PAC DR 6 and Idaho Power DR 7, it appears that only Oregon-sited projects were listed. Can each of you expand those responses to the entire system?

Second, NewSun was seeking to understand which interconnection rules each utility applies or will apply to a facility that is certified as or eligible to be a QF but sells under a contract that is something other than a QF PPA, such as an RFP or bi-lateral agreement. Your responses appear inconsistent with QF certifications filed at FERC and/or the OPUC, so we wanted to seek clarifications. For example, the Neal Hot Springs geothermal project listed in Idaho Power's data responses appears to be certified as a QF at FERC, but is listed as not a QF in the data responses. Also in response to DR 5, Idaho Power notes that Neal is interconnected under the Oregon Commission Interconnection Rules, but in response to DR 8 Idaho Power notes they were FERC jurisdictional. Can you please clarify? I also noted that PGE's Portland Hydro and PAC's Black Cap Solar projects both have a QF certification on file with the OPUC, but your responses indicated that they were no QFs. Can you clarify your responses on those projects? I have not reviewed each and every project and whether it has a QF certification on file with FERC and/or the OPUC but it would be helpful if you could double check your responses in light of the inconsistencies noted and provide a simple answer to the question of what interconnection rules applies or will apply to a facility that is certified as or eligible to be a QF but sells under a contract that is something other than a QF PPA, such as an RFP or bi-lateral agreement.

Finally, PGE's responses were inadequate to provide us with enough information to link named facilities that

have a PPA with PGE to their interconnection and transmission arrangements. Idaho Power and PacifiCorp were able to provide at least some info. PGE often simply refers us to its OASIS site, yet its interconnection studies are not even publicly available on OASIS. Can PGE please provide a response more like Idaho Power's (response to IPC DR 18) and PacifiCorp's (response to PAC DR 6) and provide us with the interconnection studies or make them publicly available like they are for PacifiCorp and Idaho Power? These requests are relevant and germane to the policy decisions in this docket.

Thank you. I'm available if there are any questions. I would appreciate a brief response in the next few days letting me know if you are able to provide this information along with an estimate of when you think you can provide it.

Marie P. Barlow | In-House Counsel, Policy & Regulatory Affairs | she/her NewSun Energy | Office: (503) 420-7734 | Cell: (509) 389-4847

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Subject: RE: UM 2032 DR Clarifications

Date: Monday, May 17, 2021 at 4:01:48 PM Pacific Daylight Time

From: Adam Lowney
To: Marie Barlow

CC: Annis, Mark, Donovan Walker (DWalker@Idahopower.com)

Hi Marie,

Idaho Power objected to DR 7 on the ground that it was overly broad and unduly burdensome. Despite that objection, Idaho Power provided extensive data for Oregon interconnections. Idaho Power believes that its response is reasonable and adequate, and does not believe that a request for information for generators beyond Oregon is reasonable, appropriate, or justified in this instance. If NewSun disagrees, however, Idaho Power would be interested in understanding why the information provided is inadequate.

Regarding your second question, the interconnection rules that apply to a particular generator are dictated by whether the interconnection is subject to state or FERC jurisdiction. The Joint Utilities' testimony (page 7 of Joint Utilities/100) explains when a QF interconnection is subject to FERC's jurisdiction. The Neal Hot Springs project was interconnected pursuant to Idaho Power's OATT because it is not selling its output to Idaho Power pursuant to a QF PPA. The reference in DR 5 to the Oregon rules is therefore an error.

Please feel free to give me a call if you'd like to discuss further.

Adam

Adam Lowney

McDowell Rackner Gibson PC

419 SW 11th Ave, Suite 400 Portland, OR 97205 Direct: 503-595-3926 | Mobile: 503-956-0081

Website: www.mrg-law.com | Email: adam@mrg-law.com

Pronouns: he/him/his

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From: Marie Barlow <mbarlow@newsunenergy.net>

Sent: Tuesday, May 11, 2021 4:08 PM

To: Jordan Schoonover <jordan@mrg-law.com>; Lisa Rackner <lisa@mrg-law.com>; donald.light@pgn.com; Adam Lowney <adam@mrg-law.com>; Walker, Donovan <DWalker@Idahopower.com>; Lisa Hardie lisa.hardie@mrg-law.com; karen.kruse@pacificorp.com; carla.scarsella@pacificorp.com

Subject: [External] UM 2032 DR Clarifications

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