

July 30, 2021

VIA ELECTRONIC MAIL (matthew.loftus@pacificorp.com)

Mr. Matt Loftus
Senior Transmission Counsel
PacifiCorp
825 NE Multnomah, Suite 1600
Portland, OR 97232

Subject: **Sunthurst Energy, LLC (Sunthurst)**
Oregon Community Solar Projects 024, 062, and 063 interconnections

Dear Mr. Loftus:

Thank you for your July 6 and July 20 responses to my July 1 letter (“July 6 Response” and “July 20 Response”, respectively). In this letter I respond to numbered paragraphs 1-8 in your July 6 Response, as updated by your July 20 Response. Because your July 6 letter was not docketed in Docket UM 2177, I have attached it for ease of reference. (**Attachment A**).

¶1. July 2 answers to Sunthurst questions re OCS 062 SIS report. Requested results of voltage drop studies provided by PacifiCorp on July 2 do not establish that re-conductoring is warranted under the IEEE 1547-2018 standard. In the May 3 OCS 062 SIS, page 5, PacifiCorp wrote “To meet IEEE 1547-2018 Rapid Voltage Change (RVC) requirements an instantaneous generator output change from 100% to 0% must not produce more than a 3% change in voltage.” My July 1 letter, page 2, pointed out that the Community Solar rules require adherence to IEEE 1547-2003 standards (not IEEE 1547-2018). In your July 20 Response, page 3, you state that PacifiCorp has removed the reference to IEEE 1547-2018. However, one paragraph later you cite IEEE 1547-2018 Section 7.2.2 in support of PacifiCorp’s position that re-conductoring is necessary.

Clearly PacifiCorp is relying on IEEE 1547-2018, whether it states so explicitly or not. There is no comparable standard in IEEE 1547-2003. The fact, stated in your July 6 Response, that PacifiCorp has negotiated this requirement with other developers does not entitle it to impose the limit on Sunthurst, where the recently adopted Community Solar Project Interconnection Procedures, Section D(5)d, says PacifiCorp must use IEEE 1547-2003. Further, Sunthurst disagrees with PacifiCorp’s interpretation of IEEE 1547-2018, Section 7.2.2 and its resulting conclusion. Section 7.2.2 states it “shall not apply to infrequent events such as switching, unplanned tripping, or transformer energization related to commissioning, fault restoration, or maintenance” (emphasis added). Therefore, it is not a basis for requiring mitigation, because PacifiCorp’s study¹ shows excessive voltage change *only* during [infrequent] full generation trip, which is outside the express scope of Section 7.2.2. Finally, the voltage drop study reports provided by PacifiCorp remain incomplete because they do not indicate WHERE the abnormal voltages are occurring. Without more details we cannot know if re-conductoring is the best solution or it is just incidental that this solution solves the problem. Depending on the location, just changing the voltage on the feeder voltage regulator may eliminate any violation of C84.1 Range A.

¹ PacifiCorp’s July 2, 2021 explanation with attached model results provided by Ty Engle show that PacifiCorp’s re-conductoring requirement stems from a scenario where generation trips during feeder peak load. This scenario would occur, at most, infrequently and therefore not be subject to Section 7.2.2.

In summation, PacifiCorp has not shown the need for re-conductoring, yet continues to require re-conductoring, at a cost of more than \$400,000. Sunthurst does not understand why PacifiCorp is applying a standard that is *more* stringent than IEEE 1547-2018, where even IEEE 1547-2018 would not call for re-conductoring. *Unless PacifiCorp provides an applicable design standard and study results that support re-conductoring, or else removes that item from OCS 062 SIS Report, Sunthurst intends to file a Complaint with the Commission.*

¶2. PacifiCorp’s July 2 pledge to remove IEEE-1547-2018 references from 062 and 063 interconnection studies. On July 20, PacifiCorp provided revised SIS Reports for OCS 062 and OCS 063, where all instances of “IEEE 1547-02018” have been removed. However OCS 024 Interconnection Agreement (June 18, 2021 revision) still refers to IEEE 1547-2018 in attachments 4 and 6. *Sunthurst asks that PacifiCorp please update the June 18 OCS 024 Interconnection Agreement, omitting references to IEEE 1547-2018.*

¶3. PacifiCorp’s ongoing review of whether applying Policy 138 to community solar interconnections would be contrary to Community Solar Program rules. PacifiCorp’s July 20 response, Page 2, stating that the OCS 063 inverter will not be required to provide VAR support, but rather will be required to operate at constant power factor mode as specified in IEEE 1547-2003, is acceptable to Sunthurst. Sunthurst appreciates this modification, which is consistent with Article 1.8 of PacifiCorp’s *pro forma* OCS Interconnection Agreement (IA). *Sunthurst asks that PacifiCorp please memorialize its decision in the IA for both 062 and 063, and also 024.*

¶4. PacifiCorp’s refusal to provide drawings of protective equipment and planned improvements for Buckaroo, Pendleton, and McKay substations because (a) they are not relevant; and (b) they are not protected by the parties’ existing NDA. In response to (a), above, the plans for the transmission system are relevant or potentially relevant for this dispute. Your June 9 letter to Sunthurst, page 4, stated that “PacifiCorp must perform interconnection studies based on how it reasonably believes its system will exist at the time of the proposed interconnection”, including “planned changes in load, planned upgrades or modifications to the transmission or distribution system.” PacifiCorp’s statement recognizes the fact that planned changes to the transmission system affect interconnection studies.

Sunthurst wishes to review PacifiCorp’s conclusions with its independent expert based upon the same facts used by PacifiCorp (as permitted by OAR 860-082-0060(7)(h)). Further, the SIS Reports for OCS 062 and for OCS 063 state the studied commercial online date is not feasible given the scope of work. Since the currently studied online date will have to be changed, additional information about planned changes to the transmission system may affect Sunthurst’s preferred online date.² Accordingly, *Sunthurst requests documentation showing (i) what upgrades to the McKay, Buckaroo, and Pendleton substations and feeders are planned for the next 24 months; (ii) what upgrades have been performed in 2021; and (iii) single line diagram for Buckaroo and McKay substations.*

In response to (b), if PacifiCorp thinks a separate NDA is required for viewing transmission system information related to Sunthurst’s interconnections, Sunthurst will cooperate promptly.

² Modification of the commercial online date is a minor change allowed under the Division 082 interconnection rules.

¶5, PacifiCorp’s refusal to study alternative feeder configurations for OCS 062 and OCS 063. Sunthurst responds to each paragraph of your July 6 letter, as follows:

(a) Sunthurst did not recklessly rely upon PacifiCorp’s published MDL data. In choosing sites that apparently fit the CSP interconnection eligibility requirements established by PacifiCorp, Sunthurst acted in accordance with the expectations of all parties to Docket UM 1930. In UM1930, the Joint Utilities encouraged developers to look at the publicly available distribution feeder load data posted by each utility³, and to look at prior interconnection studies for similarly sized and located projects⁴. Sunthurst did both. Sunthurst relied on that data when siting and sizing its projects because it was the best information available. While it accepts the risk that mistakes can happen, even PacifiCorp must acknowledge that, in the case of Sunthurst, the publicly available MDL data for three Community Solar Projects, OCS 024, OCS 062, and OCS 063, inaccurately reflects the conditions studied by PacifiCorp during the SIS.⁵ Sunthurst recognizes that MDLs can change, and that PacifiCorp published a disclaimer with its published MDL data. However Community Solar Program stakeholders also expect PacifiCorp to use good faith effort to be accurate and candid with Community Solar interconnection customers, to timely update its published data, and to reasonably accommodate applicants where the data published by PacifiCorp do not accurately reflect the system as studied. They expect PacifiCorp will not consciously withhold information about its system it knows will impact the cost of interconnection, or make changes to its system motivated by a desire to make 3rd Party interconnections uneconomic. A disclaimer cannot absolve PacifiCorp from these basic duties. PacifiCorp’s unwillingness to conduct a restudy of OCS 062 conflicts with the Joint Utility’s premise that the CSP Interconnection Process will be accommodative to community solar projects. In doing, PacifiCorp’s actions undermine the legislature’s and the PUC’s stated objectives for the Community Solar Program. Sunthurst will zealously seek resolution of these matters, which threaten the viability of the Community Solar Program at large.

(b) Your July 6 Response, page 2, states “PacifiCorp advised Sunthurst at the scoping meeting for OCS 062 that circuit 5W203 [to Buckaroo Substation] was not available, and therefore, it would need to be interconnected to the new circuit 5W856 [to McKay Substation].” In fact, 5W856 was a planned improvement that did not exist at the time, and was NOT the only circuit proximate to the OCS 062 Point of Interconnection (POI). **Attachment B** shows that 5W403 was also proximate. OCS 062’s requested POI is located closer to Pendleton substation via (existing) circuit 5W403 than to the new McKay substation via (planned) circuit 5W856. Whether the POI

³ *Joint Utilities’ Reply Comments*, Docket UM 1930 (September 13, 2019), at 6 (“The publicly available distribution feeder data posted by each utility contains a snapshot of [the CSP interconnection eligibility criteria] for each distribution feeder, as of the posting date.”).

⁴ *Joint Utilities’ Reply Comments*, Docket UM 1930 (September 13, 2019), at 9 (“CSP developers seeking to understand and plan for the types or range of potential interconnection costs can look to prior interconnection studies conducted for similarly sized or located projects.”).

⁵ Sunthurst sized OCS 024 at 2.45 MW based on PacifiCorp published MDL of 2.45 MW for feeder 5W403 on PacifiCorp’s UM2000 _Interconnection_Data_20-0124.xls public file on OASIS, however PacifiCorp studied OCS 024 interconnecting to (non-existent) feeder 5W857 at a reduced size of 1.56 MW. Sunthurst located OCS 062 and sized it at 2.4 MW based upon PacifiCorp published MDL of 2.6-2.4mW for 5W203, however PacifiCorp studied interconnecting OCS 062 to a non-existent circuit 5W856, with 2.06 MW MDL. Sunthurst located OCS 063 and sized it at 2.99 MW based upon PacifiCorp published MDL of 2.7MW for 5W202, however PacifiCorp subsequently studied OCS 063 with MDL reduced to 1.65 MW due to non-existent circuit 5W856 diverting existing load from circuit 5W202.

is served by 5W403 or 5W856, and which load is paired with each circuit, are largely discretionary choices about the future configuration, made by PacifiCorp.⁶

The SIS Report for OCS 062 concluded that interconnecting to 5W856 will require, among other changes, 0.7 miles of feeder replacement, replacement of sectionalizers with field reclosers, and installation of three 69 kV potential transformers at Buckaroo Substation--in other words a very expensive interconnection. However SIS Reports from past interconnection requests suggest that interconnecting OCS 062 to 5W403 may be far less complicated and expensive.⁷ Only PacifiCorp had information regarding the circuits in and around the OCS062 POI. It would have been obvious to PacifiCorp that 5W403 was a viable alternate circuit for OCS062 to connect to, but Sunthurst could not have known until PacifiCorp shared its distribution map on July 6. Sunthurst could not have given informed consent to study only 5W856 when PacifiCorp did not mention circuit 5W403 also could serve the requested POI, likely at far lower cost. Under the circumstances, where planned changes to the system Sunthurst could not have known about would make interconnection to circuit 5W856 economically non-viable and where connecting to Circuit 5W403 may be far less expensive, it is reasonable to allow restudy of Circuit 5W403.

(c) Sunthurst acknowledges it chose the POI for OCS 063 in its December 15, 2020 OCS interconnection application. Sunthurst notes, further, that PacifiCorp screened Sunthurst's December 15 application, determined that the 2.99 MW project met the CSP Interconnection eligibility criteria, and accepted Sunthurst's \$1,000 payment. However, PacifiCorp did not inform Sunthurst until 49 days later (February 3, 2021) that the MDL on the requested circuit was had shrunk to 1.65 MW. A similar pattern occurred with OCS 024, and with OCS 062, which was filed the same day as 062.

(d) Restudy of OCS 062 interconnected to 5W403 would not be a change in POI under the OAR Division 82 rules. OAR 860-082-0015(26) defines "Point of Interconnection" as a location where the Project connects to the system, and not as a circuit.⁸ Accordingly, the study of OCS 062 connecting to 5W403 as shown on Attachment B does not require a new application.⁹

Summation. Sunthurst applied to interconnect OCS 062 to PacifiCorp's system at a specified location (POI). In reliance on PacifiCorp's published information, Sunthurst assumed that POI would interconnect to 5W203. At some time (before updating its published feeder data), PacifiCorp decided to change the circuit serving the POI. It sought Sunthurst's consent without informing it of the immediate proximity of 5W403 to the POI. From what Sunthurst can discern from past 5W403 interconnection studies, it appears that PacifiCorp's choice to serve the POI from 5W856 and not 5W403 greatly increased Sunthurst's costs without any discernable benefit

⁶ The circuit map PacifiCorp provided in response to Sunthurst's July 1 request shows there is a short section of line with little or no load separating the OCS062 POI from 5W403. With the relocation of one switch demarcating the boundary between 5W856 and 5W403, the POI could have interconnected to 5W403. (See annotations to PacifiCorp Circuit map, **Attachment B**).

⁷ See, e.g. July 12, 2016 SIS Report for Interconnection Customer Q0728.

⁸ "Point of interconnection" means the point where a small generator facility is electrically connected to a public utility's transmission or distribution system. This term has the same meaning as "point of common coupling" as defined in IEEE 1547[-2003], section 3.1.13. This term does not have the same meaning as "point of common coupling" as defined in OAR 860-039-0005(3)(p). OAR 860-082-0015(26).

⁹ PacifiCorp has always asserted the right to restudy interconnection requests in the event of significant changes. See, e.g. OCS 062 SIS Report, p. 11 (right to restudy if higher priority request is withdrawn).

to PacifiCorp. If Sunthurst interconnecting to 5W403 may be accomplished at much lower cost than interconnecting to 5W203, and without significant burden to PacifiCorp, such a change is both reasonable and proper. Such a change is allowed by the interconnection rules, and is reasonable given the facts in this situation. *Accordingly, Sunthurst requests PacifiCorp study the interconnection configuration for OCS 062 to 5W403 as shown on Attachment B.*

¶6 Sunthurst acknowledges receipt of an additional distribution map on July 6, subject to the parties' NDA.

¶7 Sunthurst received OCS 062 and OCS 063 cost breakdowns with your July 6 Response, and received updated OCS 062 and OCS 063 SIS Reports with the 20% construction contingency removed with your July 20 Response.

¶8. Sunthurst appreciates PacifiCorp's further extension, to July 30, of Sunthurst's deadline to execute the Facilities Study Agreements. However, Sunthurst received a notice of default on OCS 024 on July 12. In your June 9 letter, page 1, you said that "the cure period to executed the OCS 024 interconnection agreement is no longer in effect while negotiations are ongoing." Perhaps Mr. Engle forgot about your June 9 pledge? In any event, acceleration of the termination date of the OCS 024 to August 11 surprised Sunthurst, and makes it likely Sunthurst will be forced to file a complaint seeking injunctive relief prior to August 11. OCS 024 still has unresolved issues it wishes to negotiate, including those discussed, in "other issues", below. *Under the circumstances, postponing looming response deadlines for all three projects while the parties continue to work on their issues seems like a pragmatic alternative to litigation.*

OTHER ISSUES. The following issues, or subjects for which Sunthurst seeks further clarification, have arisen out of the information provided by PacifiCorp in its communication since Sunthurst's June 2 letter.

1. Dates on revised SIS Reports. Sunthurst's team found it confusing to have two different versions of the OCS 063 SIS Report and three different versions of OCS 063 SIS Report, all dated May 3, 2021, with no way to tell which is the later version. Would PacifiCorp please state prominently on page 1 of the revised SIS Reports the date when they were revised? Sunthurst has shared the early versions with potential lenders and/or investors and is concerned that confusion over SIS Report vintage may hinder its negotiations.

2. Q0586. PacifiCorp did not remove Q0586 (6MW) from the list of higher priority transmission service requests in Appendix 1 in revised SIS Reports for OCS 062 or 063. PacifiCorp agreed in its June 4 letter, page 4, that removal was proper. Would PacifiCorp please (a) remove Q0586 from Appendix 1, and (b) explain whether the erroneous inclusion of Q0586 in Appendix 1 had any impact on the system impact studies for either Project? Further, the Q0586 SIS Report and FS Report both specified that Q0586 would pay for installation of three 69kV CCVTs at Buckaroo Substation, at a cost of approximately \$600,000. Can PacifiCorp please explain why it requires OCS 063 to pay for three 69kV CCTVs at Buckaroo, if they were already installed by Q0586?

3. Q0547. This 8MW Project has a senior queue position to 024, 062, and 063 in the SIS Reports. PacifiCorp's OASIS queue summary shows a required commercial online date (COD) of August 1, 2021. No construction is visible at the site today, meaning the COD is likely not attainable. Sunthurst requests that, upon Q0747 defaulting on its COD, the 024, 062 and 063 studies be updated to reflect the significant reduction in local area generation.

4. Non-standardized Cost Estimating. Sunthurst perceives a significant, unexplained, difference in \$/MW interconnection costs between PacifiCorp interconnections located in its Medford/Klamath territory, on the one hand, and its Pendleton/Umatilla territory, on the other. The table below shows interconnection costs of Sunthurst CSPs (024, 062, 063) located in Umatilla County compared to interconnection costs of CSPs located in Douglas, Jackson, and Klamath counties (OCS 047, 050, 058, and 040).

	OCS024 SGIA	OCS062 SIS	OCS063 SIS	OCS047 SIS	OCS 050 SIS	OCS 058 SIS	OCS 040 SIS
Capacity (MW)	1.56	2.4	2.99	2.25	1	1.25	1.64
County	Umatilla	Umatilla	Umatilla	Klamath	Douglas	Jackson	Jackson
Project Admin		21000	21000		17000	11000	
Relay Settings		30000	15000		15000	7000	
Collector Station				76000			44000
Line Recloser				30000			
Distribution	62000	402000	64000	55000	39000	44000	69000
Communications		221000	54000	63000	49000		
Metering		26000	26000		15000	11000	
Substation		240000	300000		27000		6000
Other Costs		75000	44000		37000	17000	
Trans upgrades			67000				
Interconnect. Facil.	87000						
System Upgrades	144000						
Total	293000	1015000	591000	224000	199000	90000	119000
\$/MW	\$187,821	\$422,917	\$197,659	\$99,556	\$199,000	\$72,000	\$72,561

PacifiCorp evidently has not standardized its cost estimating categories. Some projects break out Project Administration costs, metering costs, Capital Surcharge costs, etc, whereas other estimates group costs by location or system. The lack of consistent cost groupings makes comparison difficult. We note, however:

1. Some projects are charged for Project Administration while others are not.
2. Metering at OCS 062 and 063 inexplicably costs two times what metering costs at OCS 050 and OCS 058.
3. PacifiCorp charged \$30,000 for a line recloser on OCS 047, but more than \$62,000 for a recloser on Sunthurst project OCS 024.
4. Relay Settings at OCS 062 and OCS063 cost more than apparently similar work at OCS 050, OCS 058
5. PacifiCorp charged \$62,000 for a Direct Transfer Trip scheme on OCS 058, but more than \$111,000 for DTT on Sunthurst project OCS 024.
6. Internal Labor for Engineering, General, Operations, Project Management is very similar scope is grossly divergent by location.

The cost to interconnect Sunthurst's projects compared to the other CSP's, above, on a \$/MW basis, seems inexplicably high based on the information contained in the SIS Reports. Could PacifiCorp please provide detailed Cost Estimates for the OCS reports in the table, above, so that

Sunthurst can attempt to determine why its costs seem disproportionately high? Also, can PacifiCorp please explain why the more expensive jobs have Administrative Costs broken out separately and the less expensive jobs do not?

5. Problematic timing of Buckaroo/McKay/Pendleton substation circuit reconfigurations.

From information available to Sunthurst, it appears that PacifiCorp's published MDL data for the circuits serving OCS 024, OCS 062, and OCS 063 were correct at the time Sunthurst submitted its applications. However, PacifiCorp did not study the requested interconnections using the published MDL data, because of planned reconfigurations affecting the circuits serving all three Projects. All three Projects' interconnection costs were substantially increased as a result of the planned future network reconfigurations.

In your June 9 letter, page 4, you stated that:

"PacifiCorp must perform interconnection studies based on how it reasonably believes its system will exist at the time of the proposed interconnection. * * * PacifiCorp must account for [a] planned changes in load, [b] planned upgrades or modifications to the transmission or distribution system, and [c] planned interconnection of higher queued generators even if those generators are not operational when the interconnection study is performed."

The above statement, however, does not address PacifiCorp's duties of fairness to CSP interconnection applicants. Information concerning planned interconnection of higher queued generators (category [c], in PacifiCorp's list, above) is transparent and objective, because PacifiCorp-published interconnection studies inform developers of all planned generation near their projects. However, information concerning planned changes in distribution system and distribution circuit load (categories [a] and [b], above), is not transparent or objective. The information is not transparent because it is neither published by PacifiCorp nor included in recent interconnection studies. The information is not objective because PacifiCorp does not appear to follow a predictable process or timeline for deciding when it will reconfigure circuits or how the boundaries of reconfigured circuits are determined. Future plans for distribution modifications are controlled by, and known exclusively by, PacifiCorp. In other words, when studying a CSP interconnection, only PacifiCorp knows (i) what changes in load and what changes in the distribution system will occur, and (ii) when those changes will occur. It seems PacifiCorp may even modify feeder circuits in a way that is disadvantageous to DG developers *after* they have relied on PacifiCorp published feeder data.

Sunthurst is concerned that PacifiCorp, informed with the above knowledge (available to PacifiCorp and not to Sunthurst): (x) specified which circuits were available for Sunthurst Projects 024, 062, and 063 to connect to; and (y) specified the Project Commercial Online Date (COD) assumed in the 062 and 063 interconnection studies.¹⁰ PacifiCorp also initially accepted and queued Sunthurst's interconnection requests for 024, 062, and 063 as requested, then waited at least 7 weeks before informing Sunthurst of the planned changes to the system adversely affecting the projects. From the information available to Sunthurst, PacifiCorp's treatment of applications 024, 062 and 063 was unreasonable. If the planned changes to the

¹⁰ On its OASIS page, PacifiCorp's Oregon Community Solar Interconnection Queue accurate states that Sunthurst's desired commercial operation date for CSP 062 and CSP 063 is "TBD". However in the SIS Reports, PacifiCorp assumed a COD of December 31, 2021.

distribution system were definite prior to Sunthurst's applications, PacifiCorp should have updated its published MDL data, and/or promptly rejected Sunthurst's interconnection applications (because they were sized larger than the MDL for the circuit at the POI). If the planned changes to the system were not definite prior to Sunthurst's application then PacifiCorp should have treated Sunthurst as a vested, senior queue position with priority over the reconfiguration work. Alternatively, it could have worked with Sunthurst to study whether minor tweaks to the system reconfiguration could mitigate adverse impacts of system changes to Sunthurst's vested application. If PacifiCorp altered the timing and/or scope of its local reconfigurations (in whole or in part) to disadvantage Sunthurst, it engaged in sanctionable misconduct. Respectfully, at this point, none of the above can be ruled out.

In Docket UM 1930, the Joint Utilities committed to a transparent process, subject to verification by the interconnection customer.¹¹ Sunthurst wishes to avail itself of its right to verify PacifiCorp's studies, and therefore requests PacifiCorp provide the following information:

1. All assumptions about the state of PacifiCorp's feeder at the POI for OCS 024, 062, and 063, and the 69kV system supporting those feeders, at the time of proposed interconnection, as modeled in the respective SIS Reports;
2. All documentation supporting PacifiCorp's assumptions in item (1). Such documentation should include maps showing the boundaries of each reconfigured circuit, the planned effective date of such reconfiguration, and the date such plans were finalized by PacifiCorp.
3. PacifiCorp's policy and practice for updating outdated published information regarding MDL on its OCS accessible feeders.
4. PacifiCorp's policy and practice for vetting CSP interconnection applications prior to deeming an applicant eligible for a CSP interconnection and accepting applicant's application fee.

Conclusion. PacifiCorp's reinstatement of the CSP 024 default deadline and its refusal to consider restudy of OCS 062 (and/or elimination of reconductoring) may make litigation unavoidable. However Sunthurst still would prefer to settle all matters amicably, if PacifiCorp is willing to consider. In any event, please, if you haven't already, instruct your client to retain all evidence relevant to disputed matter set forth in this letter, my June 2 letter, and my July 1 letter.

Thank you as always for your consideration.

Sincerely,



Ken Kaufmann, Attorney at Law
Attorney for Sunthurst Energy, LLC

¹¹ *Joint Utilities' Reply Comments*, Docket UM 1930 (September 13, 2019), at 10 ("At each step of the interconnection process, the Joint Utilities provide study results to the customer and work with customers to ensure that they understand the results, including both the required facilities and the basis for the estimated costs. And contrary to stakeholder implications, interconnection customers are free to retain their own experts to assist in the review and verification of the utility studies.").

Mr. Matt Loftus

July 30, 2021

Page 9

Enclosure

Attachment A-July 6 letter from Matt Loftus to Ken Kaufmann

Attachment B-Distribution Map showing proposed restudy of OCS 062

Copy

OPUC Filing Center (Docket UM 2177)

Attachment A

Copy of PacifiCorp's July 6 Response

July 6, 2021

Mr. Ken Kaufman
1785 Willamette Falls Drive, Suite 5
West Linn, Oregon 97086

RE: July 1, 2021, letter regarding Notice of Intent to File Complaint for Enforcement regarding OCS 024, 062, and 063.

Dear Mr. Kaufman:

PacifiCorp is in receipt of your July 1, 2021, letter. PacifiCorp is still reviewing assertions in the letter regarding the impact, if any, to OCS 062 and 063 of utilizing IEEE-1547-2018 and PacifiCorp Policy 138. PacifiCorp will provide additional responses regarding those assertions, including revised requirements and cost estimates, if necessary. In the meantime, below are responses to the July 1, 2021, letter.

1. Answers to the questions PacifiCorp received on June 2, 2021, for OCS 062 were provided to Daniel Hale on July 2, 2021. As discussed further below, PacifiCorp agrees to a final extension for Sunthurst Energy LLC's ("Sunthurst") to execute the facilities study agreements not only for OCS 062, but also for OCS 063.
2. PacifiCorp agrees to remove references to IEEE-1547-2018 for study purposes of OCS 062 and 063; however, as noted earlier, PacifiCorp is determining whether the removal will impact the requirements for interconnection. PacifiCorp notes that the Public Utility Commission of Oregon ("OPUC") rules (Oregon Administrative Rules (OAR) 860-082-0025(7)(e)(A)) allow PacifiCorp and the applicant to negotiate terms of the interconnection agreement. IEEE-1547-2018 reflects the current industry standards necessary to provide reliable service to PacifiCorp's retail customers.
3. PacifiCorp is reviewing Sunthurst's assertion that Policy 138 is imposing additional requirements on OCS 063 and resulting in an enlarged inverter to provide VAR support.
4. In the July 1, 2021, letter, Sunthurst requested, "(a) records documenting the current 69kV protection equipment in the vicinity of Buckaroo, Pendleton, and McKay substations; and (b) descriptions of planned improvements for the same substations." Similarly, in an email to Mr. Ty Engle dated July 2, 2021, from Daniel Hale, Sunthurst requested, "cost estimates, BOM's, and schedules (planned, and or actual were applicable) for all substations, 69kV transmission, and 12kV distribution feeders that have, are, or will affect Sunthurst current interconnection applications." Mr. Hale acknowledges such information is deemed confidential by PacifiCorp when he claimed that Sunthurst has a non-disclosure agreement ("NDA") with PacifiCorp.

- a. First, it is unclear how the requested information (either in the July 1, 2021, letter or in the July 2, 2021, email) relates to the interconnection study results for OCS 062 or 063, which is the subject of your June 2, 2021, Notice of Intent to File Complaint for Enforcement. Sunthurst has not explained the relevance to these two requests. Rather, it appears the requested information relates to the July 1, 2021, letter's request for PacifiCorp to study alternative feeder configurations at the McKay substation or for Sunthurst to consider alternative Points of Interconnection ("POI") for OCS 062 and 063. To the extent Sunthurst has requested this information to identify potential alternative POIs—which would require new interconnection applications (discussed below)—the information appears irrelevant to OCS 062 and 063.
 - b. Second, PacifiCorp has an NDA with Sunthurst for the distribution maps that were provided to Sunthurst on June 11, 2021. The NDA does not cover the type of confidential information requested subsequently by Sunthurst.
5. In the July 1, 2021, letter, Sunthurst requests PacifiCorp consider alternative feeder configurations in the vicinity of OCS 062 and 063. PacifiCorp disagrees for the following reasons.
 - a. First, the July 1, 2021, letter bases this request on Sunthurst's inaccurate assertion(s) that it sustained harm by relying on minimum daytime load ("MDL") values. For reasons fully explained in PacifiCorp's June 9, 2021, response letter, PacifiCorp's posted MDL values are expressly non-binding and provided for informational purposes only. Sunthurst must accept responsibility for its siting decisions.
 - b. Second, as PacifiCorp explained in its June 9, 2021, response letter, PacifiCorp advised Sunthurst at the scoping meeting for OCS 062 that circuit 5W203 was not available, and therefore, it would need to be interconnected to the new circuit 5W856. Sunthurst subsequently executed the system impact study agreement, which referenced circuit 5W856 as the POI.
 - c. Regarding OCS 063, Sunthurst chose circuit 5W202 for the POI. That POI has been studied for interconnection purposes for OCS 063. Thus, the requirements for interconnection for OCS 063 reflect the POI as requested by Sunthurst.
 - d. Effective June 16, 2021, the Public Utility Commission of Oregon implemented a pause for any further submissions of the Oregon Community Solar interconnection applications. Therefore, if Sunthurst wishes PacifiCorp to study alternative POIs, the new requests will need to be submitted pursuant to PacifiCorp's Qualifying Facility Small Generator Interconnection Procedures ("QF-SGIP").
6. In response to the July 1, 2021, letter, PacifiCorp will provide an additional distribution map of the Pendleton Distribution System that reflects the McKay substation. This map will be provided in a separate email and pursuant to the NDA. However, for reasons

discussed above, if Sunthurst's use of any of these distribution maps is to consider alternate POIs, Sunthurst must submit new interconnection requests for different POIs and those new requests will be studied in accordance with PacifiCorp's QF-SGIP.

7. PacifiCorp is providing, as attachments to this letter, additional breakdowns of the estimated costs for OCS 062 and OCS 063, as requested by Mr. Hale in his July 2, 2021, email to Mr. Engle. PacifiCorp is open to reducing contingency to zero dollars, but notes that regardless Sunthurst will be responsible for all reasonable costs incurred by PacifiCorp to interconnect OCS 062 and 063. The additional breakdown of estimated costs do not reflect a zero dollar value for contingency.
8. PacifiCorp agrees to provide final extensions for Sunthurst to execute the facility study agreements for OCS 062 and 063. Sunthurst has until July 30, 2021, to execute the agreements. As noted above, PacifiCorp will provide an updated response regarding whether the removal of references to IEEE-1547-2018 for study purposes impacts the requirements and cost estimates for interconnection—this includes the reconductoring of 0.7 miles of distribution circuit discussed in Sunthurst's July 1, 2021, letter. If so, PacifiCorp will provide updated agreements with the revised cost estimates.

Sincerely,

A handwritten signature in black ink, appearing to read "M. Loftus", with a long horizontal flourish extending to the right.

Matthew Loftus

COST ESTIMATE

Project Name: **OCS-062 Nye Solar**

Work Order: **45049606**

Total Cost: **\$1,160,000**

Prepared By: Chris Smith

Estimate Date: 04/27/21

Estimate Type: System Impact Study (±30%)

Item	Description	Quantity	Unit	Unit Price	Total Amount
1.00	Project Management			Subtotal	\$21,000
1	Project Manager	150	HRS	\$105	\$15,750
2	Project Control Specialist	70	HRS	\$75	\$5,250
2.00	Protection and Control			Subtotal	\$30,000
1	Protection and Control Engineer	200	HRS	\$90	\$18,000
2	Relay Technician	80	HRS	\$150	\$12,000
3.00	Distribution			Subtotal	\$402,000
1	POI Extension Including Switch, Pole, and 4/0 AAC Primary Cable	1	LS	\$28,000	\$28,000
2	Replace Sectionalizers with Field Recloser	1	LS	\$56,000	\$56,000
3	Reconductor 2.1 Miles to 477 AAC Primary Cable	1	LS	\$318,000	\$318,000
4.00	Metering			Subtotal	\$25,900
1	Meter Engineer	40	HRS	\$90.00	\$3,600
2	Meter Technician	80	HRS	\$140.00	\$11,200
3	Pole and Mouting Switch	1	EA	\$4,500.00	\$4,500
4	Meter and Test Switch	1	EA	\$1,500	\$1,500
5	Instrument Transformers	3	EA	\$1,500	\$4,500
6	Communication Cell Pack	1	EA	\$500	\$500
7	Miscellaneous	1	EA	\$100	\$100
5.00	Communications			Subtotal	\$221,000
1	Communications at Recloser 5W656	1	LS	\$17,621	\$17,621
2	Communications at Recloser UMDXXX	1	LS	\$24,220	\$24,220
3	Communications at Cabbage Hill Comm Site	1	LS	\$24,231	\$24,231
4	Communications at POI	1	LS	\$39,480	\$39,480
5	Communications at Mckay Sub	1	LS	\$13,448	\$13,448
6	Fiber Installation Between POI and Recloser	1.7	MI	\$60,000	\$102,000
6.00	Mckay Substation - Install VT's and Line Relay			Subtotal	\$240,000
1	PacifiCorp Engineering	80	HRS	\$90	\$7,200
2	PacifiCorp Field Operations	240	HRS	\$150	\$36,000
3	Consulting Engineering Services	1	LS	\$35,000	\$35,000

COST ESTIMATE

Project Name: **OCS-062 Nye Solar**
 Work Order: **45049606**
 Total Cost: **\$1,160,000**

Prepared By: Chris Smith
 Estimate Date: 04/27/21
 Estimate Type: System Impact Study (±30%)

Item	Description	Quantity	Unit	Unit Price	Total Amount
4	Purchase (3) 69kV Voltage Transformers	3	EA	\$8,350	\$25,050
5	Purchase (1) 12.5kV - 120V Pad Mount Transformer	1	EA	\$2,500	\$2,500
6	Purchase (1) PL-951 Relay Panel	1	EA	\$35,500	\$35,500
7	Construction Services, Construction Management	1	EA	\$7,500	\$7,500
8	Construction Services, Mobilization & Demobilization	1	EA	\$12,500	\$12,500
9	Construction Services, VT Installation	3	EA	\$15,000	\$45,000
9	Construction Services, Station Service Transformer Installation	1	EA	\$5,000	\$5,000
10	Construction Services, 4/0 CU Conductor	70	LF	\$25	\$1,750
11	Construction Services, Control Cables	500	LF	\$10	\$5,000
12	Construction Services, Conduit	100	LF	\$50	\$5,000
13	Construction Services, VT Junction Box	1	EA	\$2,000	\$2,000
14	Construction Services, Grounding	100	LF	\$30	\$3,000
15	Construction Services, Avian and Animal Protection	1	EA	\$2,000	\$2,000
16	Construction Services, Testing and Commissioning	1	EA	\$10,000	\$10,000

7.00	Other Costs			Subtotal	\$220,100
1	Capital Surcharge (8%)	1	LS	\$75,192	\$75,192
2	Contingency (15%)	1	LS	\$144,908	\$144,908

COST ESTIMATE

Project Name: **OCS-063 Reith Solar**

Work Order: **45049607**

Total Cost: **\$670,000**

Prepared By: Chris Smith

Estimate Date: 04/27/21

Estimate Type: System Impact Study (±30%)

Item	Description	Quantity	Unit	Unit Price	Total Amount
1.00	Project Management			Subtotal	\$21,000
1	Project Manager	150	HRS	\$105	\$15,750
2	Project Control Specialist	70	HRS	\$75	\$5,250
2.00	Protection and Control			Subtotal	\$15,000
1	Protection and Control Engineer	100	HRS	\$90	\$9,000
2	Relay Technician	40	HRS	\$150	\$6,000
3.00	Distribution			Subtotal	\$64,000
1	Install/Reconductor 2100' with 4/0 AAC Primary Cable	1	LS	\$64,000	\$64,000
4.00	Metering			Subtotal	\$25,900
1	Meter Engineer	40	HRS	\$90.00	\$3,600
2	Meter Technician	80	HRS	\$140.00	\$11,200
3	Pole and Mouting Switch	1	EA	\$4,500.00	\$4,500
4	Meter and Test Switch	1	EA	\$1,500	\$1,500
5	Instrument Transformers	3	EA	\$1,500	\$4,500
6	Communication Cell Pack	1	EA	\$500	\$500
7	Miscellaneous	1	EA	\$100	\$100
5.00	Communications			Subtotal	\$53,640
1	Communications at Buckaroo Substation	1	LS	\$19,880	\$19,880
2	Communications at POI	1	LS	\$33,760	\$33,760
6.00	Buckaroo Substation - Install VT's and Line Relay			Subtotal	\$300,000
1	PacifiCorp Engineering	80	HRS	\$90	\$7,200
2	PacifiCorp Field Operations	300	HRS	\$150	\$45,000
3	Consulting Engineering Services	1	LS	\$40,000	\$40,000
4	Purchase (3) 69kV Voltage Transformers	3	EA	\$8,350	\$25,050
5	Purchase (1) 12.5kV Voltage Transformer	1	EA	\$2,500	\$2,500
6	Purchase (1) PL-951 Relay Panel	1	EA	\$35,500	\$35,500
7	Purchase (1) SEL-751 Relay	1	EA	\$1,000	\$1,000
8	Construction Services, Construction Management	1	EA	\$10,000	\$10,000
9	Construction Services, Mobilization & Demobilization	1	EA	\$15,000	\$15,000

COST ESTIMATE

Project Name: **OCS-063 Reith Solar**
 Work Order: **45049607**
 Total Cost: **\$670,000**

Prepared By: Chris Smith
 Estimate Date: 04/27/21
 Estimate Type: System Impact Study (±30%)

Item	Description	Quantity	Unit	Unit Price	Total Amount
10	Construction Services, Yard Expension on Southeast Corner	1	EA	\$25,000	\$25,000
11	Construction Services, 69kV VT Installation	3	EA	\$15,000	\$45,000
12	Construction Services, 12kV VT Installation	1	EA	\$10,000	\$10,000
13	Construction Services, 4/0 CU Conductor	120	LF	\$25	\$3,000
14	Construction Services, Control Cables	600	LF	\$10	\$6,000
15	Construction Services, Conduit	200	LF	\$50	\$10,000
16	Construction Services, VT Junction Box	2	EA	\$2,000	\$4,000
17	Construction Services, Grounding	100	LF	\$30	\$3,000
18	Construction Services, Avian and Animal Protection	1	EA	\$2,750	\$2,750
19	Construction Services, Testing and Commissioning	1	EA	\$10,000	\$10,000

7.00	Coyote Creek 69 kV Transmission Line - Replace 3 Structures		Subtotal	\$67,200
-------------	--	--	-----------------	-----------------

1	PacifiCorp Engineering	80	HRS	\$90	\$7,200
2	Replace Structures 9/7, 10/7, 12/7 (TF100 Assemblies)	3	EA	\$20,000	\$60,000

8.00	Other Costs		Subtotal	\$123,260
-------------	--------------------	--	-----------------	------------------

1	Capital Surcharge (8%)	1	LS	\$44,539	\$44,539
2	Contingency (15%)	1	LS	\$78,721	\$78,721

Attachment B

Diagram showing requested restudy of CSP 062

Pendleton Distribution System - After McKay Sub

