

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF OREGON**

UM 2118

**Served electronically at Salem, Oregon, 09/29/2020, to:**

*Respondent's Attorney*  
Barb Coughlin  
PacifiCorp dba Pacific Power  
[barb.coughlin@pacificcorp.com](mailto:barb.coughlin@pacificcorp.com)

*Complainant's Attorney(s) & Representative(s)*  
Ken Kaufmann  
[ken@kaufmann.law](mailto:ken@kaufmann.law)

Re: UM 2118, SUNTHURST ENERGY, LLC, Complainant  
vs. PACIFICORP dba PACIFIC POWER, Respondent

SUNTHURST ENERGY, LLC has filed a complaint against PACIFICORP dba PACIFIC POWER. A copy of the complaint is attached and served on Respondent, under ORS 756.512(1). The Commission has assigned Docket No. UM 2118 to this complaint. Please use this number whenever you refer to this case.

The Public Utility Commission must receive an Answer from the Respondent or its attorney by October 19, 2020, under OAR 860-001-0400(4)(a). A copy must be served on the complainant.

After the filing of the answer, the PUC will contact the parties to provide information about further proceedings in this matter.

PUBLIC UTILITY COMMISSION OF OREGON

/s/Cheryl Walker  
Cheryl Walker  
Administrative Specialist 2  
Administrative Hearings Division  
(971) 388-3806 (*new telephone number*)

C: Kathleen M. Sauer, Pacific Power (w/attachments), at [tariffpolicy@pacificcorp.com](mailto:tariffpolicy@pacificcorp.com)

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Attachments: Complaint; Notice of Contested Case Rights and Procedures

## NOTICE OF CONTESTED CASE RIGHTS AND PROCEDURES

Oregon law requires state agencies to provide parties written notice of contested case rights and procedures. Under ORS 183.413, you are entitled to be informed of the following:

**Hearing:** The time and place of any hearing held in these proceedings will be noticed separately. The Commission will hold the hearing under its general authority set forth in ORS 756.040 and use procedures set forth in ORS 756.518 through 756.610 and OAR Chapter 860, Division 001. Copies of these statutes and rules may be accessed via the Commission's website at [www.puc.state.or.us](http://www.puc.state.or.us). The Commission will hear issues as identified by the parties.

**Right to Attorney:** As a party to these proceedings, you may be represented by counsel. Should you desire counsel but cannot afford one, legal aid may be able to assist you; parties are ordinarily represented by counsel. The Commission Staff, if participating as a party in the case, will be represented by the Department of Justice. Generally, once a hearing has begun, you will not be allowed to postpone the hearing to obtain counsel.

**Notice to Active Duty Servicemembers:** Active Duty Servicemembers have a right to stay these proceedings under the federal Servicemembers Civil Relief Act. For more information contact the Oregon State Bar at 800-452-8260, the Oregon Military Department at 503-584-3571 or the nearest United States Armed Forces Legal Assistance Office through <http://legalassistance.law.af.mil>. The Oregon Military Department does not have a toll free telephone number.

**Administrative Law Judge:** The Commission has delegated the authority to preside over hearings to Administrative Law Judges (ALJs). The scope of an ALJ's authority is defined in OAR 860-001-0090. The ALJs make evidentiary and other procedural rulings, analyze the contested issues, and present legal and policy recommendations to the Commission.

**Hearing Rights:** You have the right to respond to all issues identified and present evidence and witnesses on those issues. *See* OAR 860-001-0450 through OAR 860-001-0490. You may obtain discovery from other parties through depositions, subpoenas, and data requests. *See* ORS 756.538 and 756.543; OAR 860-001-0500 through 860-001-0540.

**Evidence:** Evidence is generally admissible if it is of a type relied upon by reasonable persons in the conduct of their serious affairs. *See* OAR 860-001-0450. Objections to the admissibility of evidence must be made at the time the evidence is offered. Objections are generally made on grounds that the evidence is unreliable, irrelevant, repetitious, or because its probative value is outweighed by the danger of unfair prejudice, confusion of the issues, or undue delay. The order of presenting evidence is determined by the ALJ. The burden of presenting evidence to support an allegation rests with the person raising the allegation. Generally, once a hearing is completed, the ALJ will not allow the introduction of additional evidence without good cause.

Notice of Contested Case Rights and Procedures continued

**Record:** The hearing will be recorded, either by a court reporter or by audio digital recording, to preserve the testimony and other evidence presented. Parties may contact the court reporter about ordering a transcript or request, if available, a copy of the audio recording from the Commission for a fee set forth in OAR 860-001-0060. The hearing record will be made part of the evidentiary record that serves as the basis for the Commission's decision and, if necessary, the record on any judicial appeal.

**Final Order and Appeal:** After the hearing, the ALJ will prepare a draft order resolving all issues and present it to the Commission. The draft order is not open to party comment. The Commission will make the final decision in the case and may adopt, modify, or reject the ALJ's recommendation. If you disagree with the Commission's decision, you may request reconsideration of the final order within 60 days from the date of service of the order. *See* ORS 756.561 and OAR 860-001-0720. You may also file a petition for review with the Court of Appeals within 60 days from the date of service of the order. *See* ORS 756.610.

**KENNETH KAUFMANN, ATTORNEY AT LAW**

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West Linn, OR 97068

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Kenneth E. Kaufmann  
Ken@KaufmannLaw  
(503) 595-1867

September 29, 2020

***Via Electronic Mail***

Filing Center  
Public Utility Commission of Oregon  
P.O. Box 1088  
Salem, OR 97308-1088  
puc.filingcenter@state.or.us

**Re: Sunthurst Energy, LLC, Complainant  
PacifiCorp, Defendant**

Attention Filing Center:

Attached for filing in the above-captioned docket is an electronic version of *Sunthurst Energy, LLC's Complaint*.

Thank you in advance for your assistance.

Sincerely,



Ken Kaufmann  
Attorney for Sunthurst Energy, LLC

Attach.

**BEFORE THE PUBLIC UTILITY COMMISSION OF OREGON**

**DOCKET NO.** \_\_\_\_\_

SUNTHURST ENERGY, LLC, an Oregon  
limited liability company,

Complainant,

v.

PACIFICORP d/b/a Pacific Power, an  
Oregon corporation,

Defendant

COMPLAINT

OAR 860-082-0070(a); OAR 860-029-  
0060(1).

Expedited Review Requested

Sunthurst Energy, LLC (“Sunthurst”) is the developer of Pilot Rock Solar 1 and Pilot Rock Solar 2--two pre-certified Oregon Community Solar projects seeking to interconnect to Pacific Power (“PacifiCorp”). Sunthurst hereby petitions the Public Utility Commission of Oregon (“Commission”) to resolve disputes that have arisen between Sunthurst and PacifiCorp during interconnection negotiations. Sunthurst diligently participated in Oregon’s years-long efforts to make the Community Solar Program (“CSP”) successful and is concerned PacifiCorp’s interconnection practices will prevent such success. Sunthurst challenges the reasonableness of PacifiCorp’s cost estimates, in general, and PacifiCorp’s insistence on unnecessarily expensive metering, in particular. PacifiCorp’s unreasonable costs and unnecessary metering requirements threaten to make Pilot Rock Solar 1 and Pilot Rock Solar 2 economically infeasible, thereby frustrating the State’s Community Solar Program. Without expedited review Sunthurst is unlikely to qualify for the 26% federal Investment Tax Credit, which steps down to 22% after December 31, 2020.

## **BASES FOR COMMISSION JURISDICTION AND IDENTITY OF PARTIES:**

1.

Oregon Revised Statute 756.500 provides that any person may file a complaint before the Public Utility Commission against any person whose business or activities are regulated by some one or more of the statutes, jurisdiction for the enforcement or regulation of which is conferred upon the commission. The complaint shall state all grounds on which the complainant seeks relief or the violation of any law claimed to have been committed by the defendant, and the prayer of the complaint shall pray for the relief to which the complainant claims the complainant is entitled. *Id* at ¶(3).

2.

PacifiCorp is a public utility subject to the obligations to interconnect small generators set forth in OAR 860, Division 82 and OAR 860-029-0030. PacifiCorp's Oregon headquarters is located at 825 NE Multnomah Street, Suite 2000, Portland, OR 97232.

3.

Sunthurst is an Oregon limited liability company whose address is PO Box 549, Stanfield, Oregon 97875. Sunthurst is sole owner of Pilot Rock Solar 1, LLC, a 1.98 MW solar photovoltaic project, and the adjacent Pilot Rock Solar 2, LLC, a 2.99 MW solar photovoltaic project. Both projects reside in PacifiCorp service territory and intend to sell net output to PacifiCorp as a qualifying facility under Oregon's Community Solar Program. Sunthurst may develop additional Oregon small solar qualifying facilities in the future.

## MATERIAL FACTS

4.

Sunthurst' Pilot Rock Solar 1 ("PRS1") project is designated Q0666 in PacifiCorp's Oregon interconnection queue. Sunthurst' adjacent Pilot Rock Solar 2 ("PRS2") project is designated Q1045. Both projects will interconnect to PacifiCorp's Pilot Rock substation near the city of Pilot Rock via Circuit 5W406. Both PRS1 and PRS2 received pre-certification under Oregon's Community Solar Program.

5.

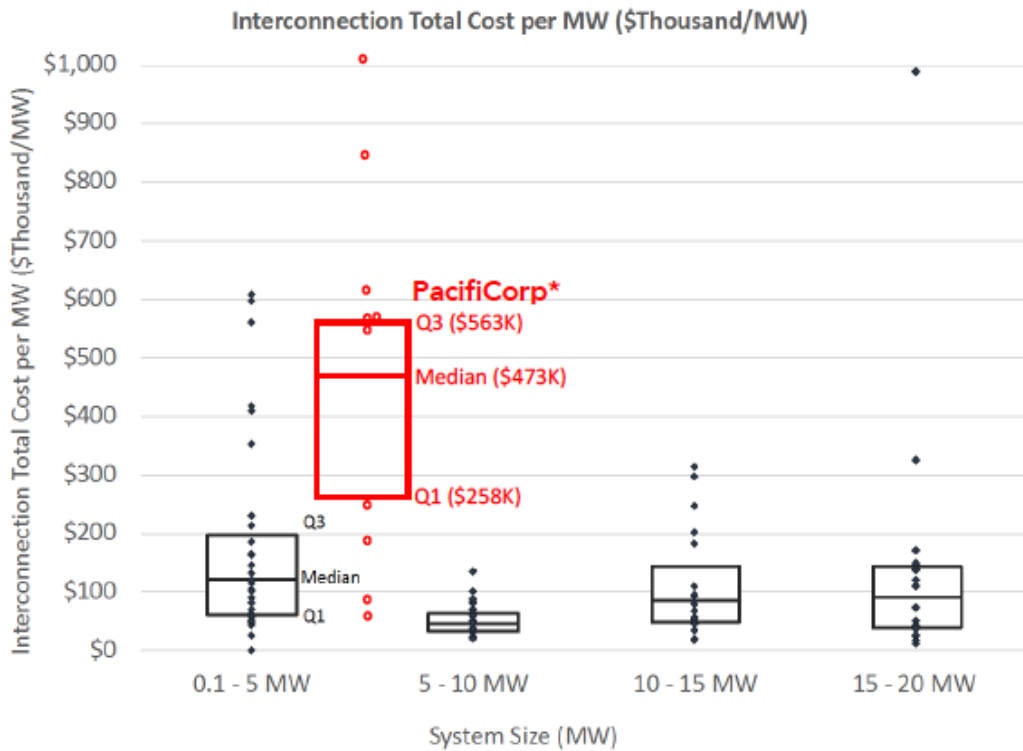
Sunthurst and PacifiCorp executed the Q0666 Interconnection Agreement on or about March 14, 2016. When the CSP launched in early 2020, both parties sought changes to the Q0666 Interconnection Agreement. While Sunthurst was still engaging PacifiCorp in negotiations, PacifiCorp tendered Sunthurst an amended Q0666 Interconnection Agreement on September 4, 2020. PacifiCorp told Sunthurst to execute it, unconditionally, by September 28, 2020 (later extended to October 1), or else PacifiCorp will deem the interconnection request withdrawn.

6.

PacifiCorp also sent Sunthurst a revised Facilities Study for Q1045 on September 4, 2020. As with Q0666, PacifiCorp (on at least two occasions) told Sunthurst to agree unconditionally (to pay the actual construction costs for the work identified in the Facilities Study) by September 28, 2020 (later extended to October 1), or else PacifiCorp will deem Sunthurst's Q1045 interconnection request withdrawn.

7.

Published data suggest that PacifiCorp’s average small generator interconnection costs are exorbitant compared to such costs charged by other utilities in Oregon and the Western United States. A 2018 NREL study<sup>1</sup> showed 25 interconnections throughout the Western United States between 100kW and 5MW had a median cost of about \$110k/MW. PacifiCorp’s ten completed Oregon CSP facilities studies have a median cost of \$473k/MW, or more than 400% of the nationwide average.<sup>2</sup>



\*PacifiCorp cost data are from 7/22/20 PacifiCorp OCSP Interconnection Queue  
Figure 11. Total mitigation cost ranges in thousands of dollars, by system size (MW)

<sup>1</sup> REVIEW OF INTERCONNECTION PRACTICES AND COSTS IN THE WESTERN STATES, Lori Bird, *et al* (Technical Report NREL/TP-6A20-71232, April 2018) (“NREL Interconnection Cost report”), page 18. The report is available free at [www.nrel.gov/publications](http://www.nrel.gov/publications).

<sup>2</sup> See PacifiCorp Oregon CSP interconnection queue, as of July 22, 2020, at <http://www.oasis.oati.com/woa/docs/PPW/PPWdocs/pacificorpcsiq.htm>



8.

PacifiCorp initially estimated total cost to interconnect PRS1 and PRS2 at \$2 Million, or \$402k/MW (even though neither project requires network upgrades or produces excess generation in a load pocket). After months of strenuous negotiations requiring Complainant to engage expert electrical engineering and legal support, PacifiCorp-estimated costs to interconnect PRS1 and PRS2 have come down to \$1.002M (\$202/MW), which is still nearly twice the regional average cost calculated in the 2018 NREL study. Unless the costs are reduced further, PRS1 and PRS2 likely will be economically non-viable.

9.

Many Community Solar projects have been abandoned by their owners after learning the high costs of interconnection published in a PacifiCorp interconnection study.

10.

On December 31, 2020, the federal Investment Tax Credit for solar projects like PRS1 and PRS2 will step down, from 26% to 22%. (When Oregon first enacted the CSP, the ITC was 30%). Failure to resolve this dispute in time for Sunthurst to qualify for the 2020 ITC will result in irreparable harm to Sunthurst.

11.

PacifiCorp's metering requirements are a significant driver of Sunthurst's interconnection costs. PacifiCorp is requiring three revenue grade meters to measure output from Q0666 and Q1045. One meter is specified at the high side of 480V to 12.5kV

step-up transformer for each, PRS1 and PRS2. The third meter measures the combined output of PRS1 and PRS2 at the Change of Ownership Point (“COP”)—only a few feet away.

See **Attachment A**.

12.

PacifiCorp does not always require three meters to measure output from two adjacent projects.

13.

PacifiCorp originally proposed a two-meter configuration for Pilot Rock Solar 1 and Pilot Rock Solar 2. The one-line diagram on page 3 of the Q0747 System Impact Study shows the two projects, side by side with a common COP, metered with only two meters.

See **Attachment B**.

14.

Sunthurst withdrew its request for a 6 MW Pilot Rock Solar 2 project and submitted a new request for a smaller (2.99 MW) Pilot Rock Solar 2 project (Q0747). Q1045 has the same COP and same Point of Interconnection as Q0747. However, PacifiCorp now requires three meters to interconnect the same two projects.

15.

Sunthurst provided two alternative metering configurations vetted by its consulting electrical engineer that would allow PacifiCorp to accurately meter both projects using only two meters at substantially lower cost than PacifiCorp’s 3-meter configuration. Sunthurst

estimates that either one of its alternative metering configurations would save Sunthurst between \$25,000 and \$50,000.

16.

Alternative 1. Sunthurst proposed that PacifiCorp eliminate the meter at the COP because it is redundant to the PRS1 and PRS2 meters. PacifiCorp's metering configuration in the Q0747 SIS shows that Alternative 1 is safe, effective, and precedented.

17.

Alternative 2. Alternatively, Sunthurst proposed metering only at the COP and at PRS2, using those meters to automatically calculate and report generation at PRS1 as the difference between the COP meter and the PRS2 meter. This arrangement is shown schematically on **Attachment C**. Other utilities (and on good faith belief PacifiCorp) use similar metering configurations when calculating energy flow on interconnected transmission lines, showing that Alternative 2 is safe, effective, and precedented.

18.

Sunthurst also proposed metering PRS1 and PRS2 on the 480V side of the project step-up transformers--because low voltage meters are less expensive than higher voltage meters. In Docket UM 1930, PacifiCorp joined PGE and Idaho Power in recommending low-side metering as a means of lowering the cost to interconnect Community Solar projects, but arbitrarily limited eligibility to Community Solar projects 360 kW and smaller, and

non-profit owned Community Solar projects of *any* size.<sup>3</sup>

19.

There is no engineering justification for allowing non-profit owned Community Solar projects larger than 360kW to meter on the low side while requiring for-profit Community Solar projects (such as PRS1 and PRS2) to meter on the high side.

20.

Staff in Docket UM 1930 encouraged utilities to look for one-off interconnection accommodations (such as low-side metering) to help Community Solar projects succeed.<sup>4</sup> However, PacifiCorp declined to make such a one-off exception for Sunthurst.

21.

PacifiCorp has not adequately explained why three meters are necessary. Initially, it argued three meters were required under its Policy 139; however, it later conceded that Policy 139 does not apply to distribution voltage interconnections such as PRS1 and PRS2. Currently, PacifiCorp rejects Alternative 2 because it claims PacifiCorp's merchant function requires metering directly at PRS1 and PRS2; however, no such requirement is set forth in PacifiCorp's standard Community Solar power purchase agreement (PPA) or related tariff. And PacifiCorp rejected Alternative 1, even though it proposed a similar two-meter configuration *at the same site* in 2016.

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<sup>3</sup> See Docket UM 1930, Joint Utilities' CSP Interconnection Proposal, August 6, 2019, p. 4.

<sup>4</sup> See Docket UM 1930, Staff Report, October 22, 2019, p. 13.

**SUNTHURST’S FIRST CLAIM FOR RELIEF: PACIFICORP WRONGFULLY REQUIRES  
SUNTHURST TO PAY FOR THREE REVENUE METERS FOR PILOT ROCK SOLAR 1 AND  
PILOT ROCK SOLAR 2.**

**Count 1--Violation of OAR 860-082-0070(a);**

22.

Complainant re-alleges paragraphs 1-21, above, and incorporates them by reference herein.

23.

OAR 860-082-0070(a) provides that the interconnection customer is responsible for the “reasonable” costs associated with metering and data acquisition equipment.

24.

Where measurement of output from adjacent projects using two meters is consistent with past precedent, and where a 3-meter configuration would cost substantially more, PacifiCorp’s 3-meter configuration is unreasonable and therefore not authorized for reimbursement under OAR 806-082-0070(a). To find otherwise would invite utilities to prescribe ever more expensive interconnections.

**Count 2--violation of OAR 860-029-0060(1)**

25.

Complainant re-alleges paragraphs 1-21, above, and incorporates them by reference

herein.

26.

OAR 860-029-0010 defines “costs of interconnection” as “the reasonable costs of connection, switching, dispatching, metering, transmission, distribution, equipment necessary for system protection, safety provisions, and administrative costs incurred by an electric utility directly related to installing and maintaining the physical facilities *necessary* to permit purchases from a qualifying facility.” (Emphasis added). OAR 860-029-0060 requires a qualifying facility to reimburse the utility for any reasonable interconnection costs.

27.

Three meters are not necessary to measure output from Sunthurst’ PRS1 and PRS2 projects, which can be measured using only two meters at substantially lower cost consistent with past precedent.

28.

PacifiCorp does not have authority under OAR 806-029-0060 to require Sunthurst to pay for 3 meters--because either (a) the 3 meters are not “costs of interconnection” as defined by OAR 860-029-0010, or (b) 3 meters are not reasonably required, where PacifiCorp is aware of substantially less expensive 2-meter alternatives offering comparable performance and safety.

**SUNTHURST'S SECOND CLAIM FOR RELIEF: PACIFICORP'S INTERCONNECTION COSTS  
FOR OREGON SMALL GENERATING FACILITIES ARE UNREASONABLY HIGH.**

29.

Complainant re-alleges paragraphs 1-28, above, and incorporates them by reference herein.

30.

The 400% disparity between PacifiCorp's Oregon Community Solar Program interconnection costs and interconnection costs across the Western United States documented in the 2018 NREL study is *prima facie* proof that PacifiCorp interconnection costs for small generators may be unreasonable. On good faith belief, PacifiCorp's Oregon Small Generation Interconnection costs are also substantially higher than costs charged by Idaho Power Company and PGE for similar interconnections.

31.

The following factors contribute to PacifiCorp's unreasonable costs:

- a. On good faith belief, PacifiCorp designs interconnections using pre-engineered equipment panels, which it configures for specific applications. In order to be versatile for many applications, the pre-engineered panels may contain components and/or functionality that are not necessary for a particular interconnection. The versatility of standardized panels unreasonably increases the cost of interconnection components beyond the cost to install only components necessary for interconnection.

- b. PacifiCorp adds a 20% contingency on all materials and labor in its Facilities Study estimates. Such a large contingency has a significant adverse impact on the finance-ability of a small generation project. However, PacifiCorp does not know how, on average, its actual interconnection construction costs compare to its estimated construction costs. Because it does not know what contingency is justified based upon the actual versus estimated costs of its recent interconnections, PacifiCorp's 20% contingency is unreasonable.
- c. PacifiCorp charges an 8% "surcharge" on top of the 20% contingency for all materials and labor in its Facility Study estimates. On good faith belief, PacifiCorp has never obtained express approval from the Commission to include this charge. An 8% surcharge has a material adverse impact on a small generator's finance-ability. PacifiCorp's use of the surcharge to recover any costs not expressly authorized by the Commission or Commission rules is unreasonable.

### **RELIEF REQUESTED**

WHEREFORE, Complainant prays for a judgment against Defendant as follows:

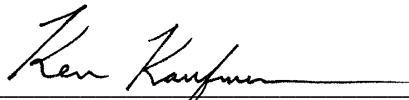
1. On Complainant's First Claim for Relief, an order:
  - a. finding that PacifiCorp's 3-meter configuration specified for PRS1 and PRS2 is unnecessary;
  - b. declaring that PacifiCorp's 3-meter configuration specified for PRS1 and PRS2 is unreasonable;



- c. prohibiting PacifiCorp from charging Sunthurst any cost of a 3-meter configuration that is over and above the cost of a two-meter alternative.
  - d. requiring PacifiCorp to allow Sunthurst to install meters on the low voltage side of PRS1 and PRS2 ; and
  - e. granting such other relief the Commission determines appropriate.
2. On Complainant's Second Claim for Relief:
- a. a finding that average PacifiCorp interconnection costs for small generator interconnections are substantially higher than average costs of similar interconnections across the Western United States;
  - b. an order directing PacifiCorp to identify all components and functionality included in interconnections and pay an equitable portion of the cost of pre-engineered panels when those panels contain components or functionality not necessary for customer's interconnection;
  - c. an order directing PacifiCorp to reduce its standard 20% contingency on its PRS1 and PRS2 to a lower percentage to be based upon historic data showing the average difference between Facilities Studies Interconnection Cost estimates and actual final costs;
  - d. an order directing PacifiCorp to show cause why the 8% surcharge on Sunthurst' PRS1 and PRS2 interconnections is reasonable;
  - e. an order directing PacifiCorp to allow Sunthurst to construct the facilities specified in its interconnection agreements in conformance with the requirements of PacifiCorp; and

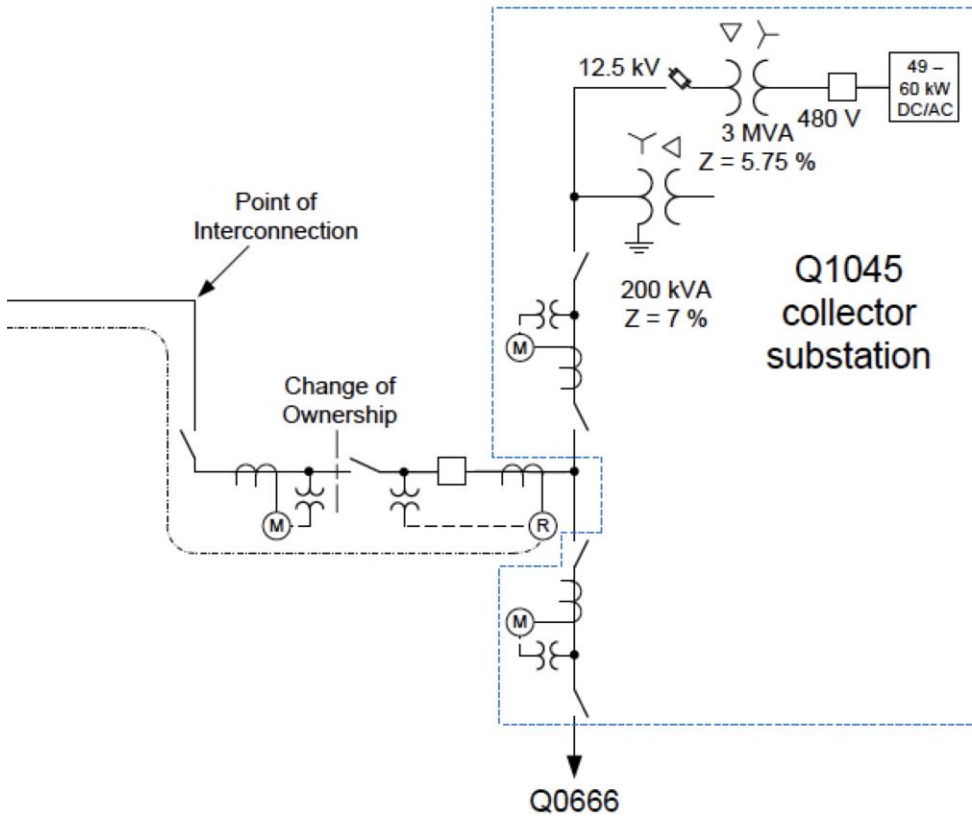
f. such other relief the Commission determines appropriate.

Dated this 29th day of September 2020.

By:   
Kenneth E. Kaufmann, OSB 982672  
*Attorney for Sunthurst Energy, LLC*

**Attachment A**  
**PacifiCorp's Proposed 3-meter Configuration for PRS1 and PRS2**

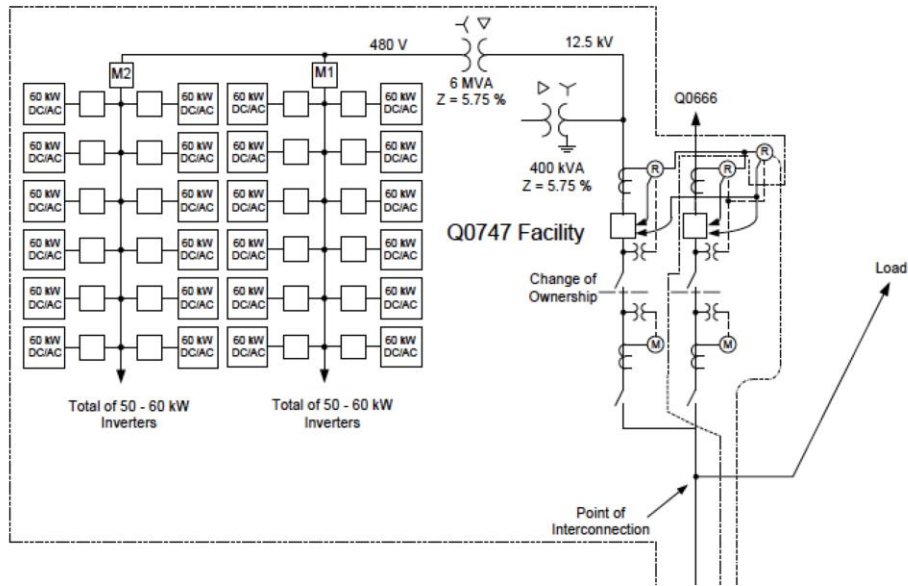
**Facilities Study Report**



Source: Tier 4 Facilities Study Report for Pilot Rock Solar 2, LLC (Q1045), June 30, 2020, p.2

**Attachment B**

Page 3 of the PacifiCorp Q0747 SIS showing two adjacent projects with a common COP, metered with only two meters

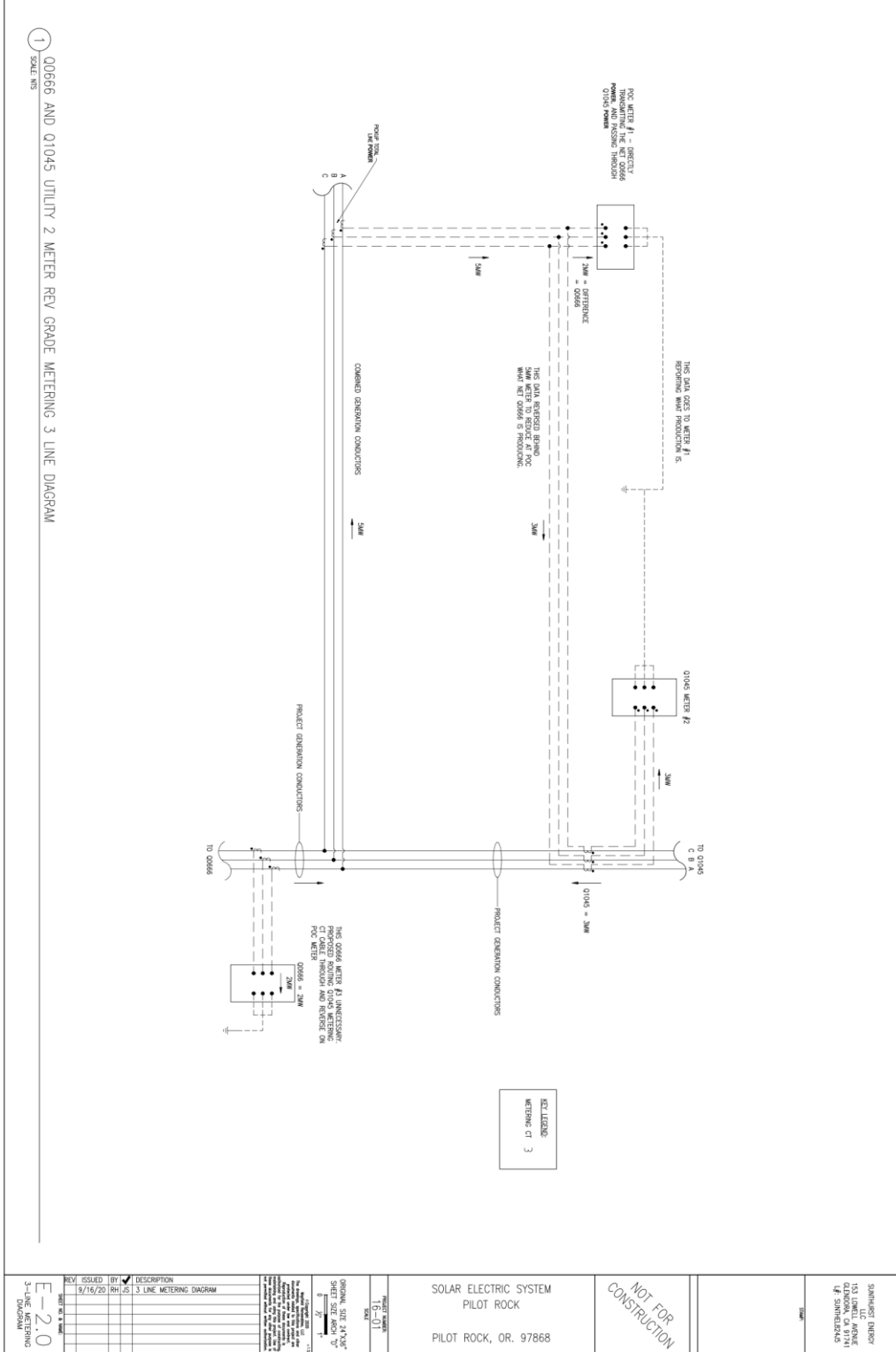


Source: Tier 4 System Impact Study Report for Pilot Rock Solar 2, LLC (Q0747), August 26, 2016, p.3

# Attachment C

## Schematic showing Sunthurst Alternative 2 for measuring PRS1 and PRS2 output with only two meters

PRINT DATE: 9/16/2020 DWG. LOCATION: G:\Shared drives\Design\Projects\Sunthurst\_Energy\_LLC\Pilot\_Rock\Working\_Set\E-2.0\_3LD.dwg



1 00566 AND 01045 UTILITY 2 METER REV GRADE METERING 3 LINE DIAGRAM  
SCALE 1:1

|  |  |  |  |                                 |  |
|--|--|--|--|---------------------------------|--|
| SUNTHURST ENERGY<br>151 LAMBERT AVENUE<br>SUITE 100<br>SEASIDE, CA 94134<br>P: 415.493.1111<br>F: 415.493.1115 |  | SOLAR ELECTRIC SYSTEM<br>PILOT ROCK<br>PILOT ROCK, OR. 97868 |  | <b>NOT FOR<br/>CONSTRUCTION</b> |  |
| ORIGINAL SIZE 24"X36"<br>SHEET SIZE A000 11"<br>8 1/2" X 11"   |  |  |  |                                 |  |
| 15-01  |  |  |  |                                 |  |
| 9/16/2020 RH 3 LINE METERING DIAGRAM   |  |  |  |                                 |  |
| E-2.0<br>3-LINE METERING<br>DIAGRAM  |  |  |  |                                 |  |