

**PUBLIC UTILITY COMMISSION OF OREGON
STAFF REPORT
SPECIAL PUBLIC MEETING DATE: January 16, 2020**

REGULAR X **CONSENT** **EFFECTIVE DATE** **N/A**

DATE: January 10, 2020

TO: Public Utility Commission

FROM: Jill Goatcher

THROUGH: Michael Dougherty and JP Batmale

SUBJECT: OREGON PUBLIC UTILITY COMMISSION STAFF:
(Docket No. UM 1930)
Community Solar Program Interconnection Update.

STAFF RECOMMENDATION:

The Oregon Public Utility Commission (OPUC or Commission) should approve the implementation plans (Plans) for Community Solar Program (CSP) Interconnections for PacifiCorp (PAC), Portland General Electric (PGE), and Idaho Power Company (Idaho Power) set forth in this memorandum and its attachments, and direct each utility to file a tariff formalizing their CSP interconnection process and a pro forma Interconnection Agreement for the February 25th Public Meeting. The Commission should also approve the jurisdictional findings outlined in this memorandum.

DISCUSSION:

Issue

Whether the Commission should approve the near-term CSP interconnection implementation process set forth in this memorandum and attachments and direct PGE, PAC, and Idaho Power to file tariffs and pro forma Interconnection Agreements to formalize their CSP interconnection processes.

Applicable Rule or Law

ORS 757.386(2)(a) directs the Commission to establish a program that provides electric customers with the opportunity to share the costs and benefits of solar generation. On October 29, 2019, the Commission adopted the Staff recommendation to implement a

stream-lined interconnection process for CSP projects that had been proposed by the utilities.

Analysis

Background

On October 29, 2019, the Commission adopted Staff's six recommendations to facilitate a fair and functional interconnection process for CSP projects.¹ These interconnection solutions include:

1. Create a streamlined CSP interconnection process;²
2. Begin developing models for cost-sharing between CSP generators;³
3. Allow CSP generators 360 kW or less to meter on the low side of the transformer;⁴
4. Issue a Request for Information for a third-party expert interconnection study review services;⁵
5. Provide an enhanced pre-application report for non-profit and public CSP Project Managers;⁶ and
6. Require PacifiCorp to provide additional information on the process to address the backlog of interconnection applications.⁷

Following the adoption of these six CSP interconnection solutions, Staff and the utilities determined that the implementation details should be fleshed out and approved by the Commission through a tariff filing. In addition, it was determined that a pro forma CSP interconnection agreement should be approved with the CSP interconnection tariff. Due to the complexity of developing a tariff for a new and unique interconnection process, the utilities indicated that these documents could not be finalized for Commission approval until the February 25, 2020, Public Meeting.

The utilities have drafted individual interconnection implementation plans (Plans), found as Attachments A, B, and C to this memo. The Plans are designed to provide enough detail and certainty to 1) keep stakeholders and the Commission adequately informed of

¹ Docket No. UM 1930, Order No. 19-392 at p. 5.

² See Docket No. UM 1930, Commission Order No. 19-392, Appendix A at 6.

³ *Id.* at 10.

⁴ *Id.* at 13.

⁵ *Id.* at 14.

⁶ *Id.* at 15.

⁷ *Id.* at 16.

the implementation process; 2) begin certain near-term interconnection process implementation activities prior to tariff filings; and 3) engage the Commission and stakeholders early enough for the utilities to put forth well-designed tariffs.

Sufficiency of the Plans

Staff greatly appreciates the utilities' responsiveness to the timeline of launching the CSP and the effort that went into the developing Plans in a short timeframe. Upon review, Staff finds that the Plans are a reasonable reflection of interconnection solutions adopted by the Commission and provide enough detail to keep implementation of the program moving forward prior to the tariff filings because projects can begin the pre-certification interconnection requirements. If the Commission approves the Plans set forth in this Memorandum, the Commission should also order each of the utilities to file a tariff containing the interconnection process approved by the Commission and a pro forma interconnection agreement for approval at the Feb. 25, 2020, Public Meeting.

The utilities will also need to file a CSP program tariff that outlines customer participation, billing, and other administrative details, as well as a standard agreement for the terms of the delivery of power and sale of unsubscribed energy to the utility. The utilities are currently planning to file these documents at the same time as the interconnection-specific tariff and pro-forma interconnection agreement as a combined tariff. However, they are separate from, and outside of the scope of, this interconnection-specific memorandum.

Staff reiterates that applications, studies, Interconnection Agreements, and interconnections under the CSP interconnection process approved in Order No. 19-392 are only for generators that participate in the CSP and operate as CSP projects. To the extent a generator obtains a study or agreement under the CSP interconnection, the study or agreement will only be valid for a generator in the CSP.

Further, Staff notes that these plans are a meant to memorialize near-term implementation details within a longer-term effort to put a new and unique process in place. These plans address the critical CSP interconnection items that are ready to move forward without waiting for every component of the interconnection process to be finalized. Staff anticipates that the details of the CSP implementation process will continue to be developed through the tariffs and refined with the Commission, stakeholders, and Program Administration (PA) Team as new learnings and issues arise.⁸ Staff will provide an update on the CSP interconnection implementation process in March.

⁸ See generally *Id.*

Additional details and considerations for the interconnection solutions are provided in the following sections of this memorandum.

Additional Considerations for the Six Interconnection Solutions

The following sections are organized by the six interconnection solutions adopted in Order No. 19-392. They summarize the overarching plan across the utilities' proposals and note important considerations regarding sufficiency of the Plans and their interaction with ongoing CSP interconnection and launch efforts.

Solution #1: Create a streamlined CSP interconnection process.

The CSP interconnection process will establish separate CSP project interconnection queues. In the CSP queue, the utility will consider a limited universe of electrically relevant generators located within the local area, and limit the study to the scope of a FERC ERIS study. CSP generators are eligible to participate in the CSP queue if the project of the proposed generator, together with all other interconnected and requested generation in the local area, is less than 100 percent of minimum daytime load (MDL). If a measure of MDL is not available for the feeder, utilities will use 30 percent of summer peak load. If projects are not sized according to the CSP queue eligibility, they will be ineligible for the CSP queue. Except as noted in the Commission direction and in the Plans, the utilities will follow the existing Oregon Small Generator Interconnection Process (SGIP).

Detailing the CSP Queue Process. Each utility will open the CSP interconnection queue for generators with an existing position in the traditional serial queue on January 20, 2020, and for new generators on February 3, 2020. Once a generator submits a CSP interconnection application, the utility will follow a process that mirrors the existing regular SGIP.⁹ To apply for project pre-certification in the CSP, the generator must have a complete interconnection study.¹⁰ If the project is less than or equal to 360 kW-AC, or is managed by a public or non-profit project manager, the generator only needs to provide documentation that they have paid a deposit for an interconnection study.¹¹

Once a CSP generator submits a CSP interconnection application, the utility has ten business days from the receipt of an application to let the generator know whether their application is complete.¹² The utility then has ten business days from the complete application notification to schedule a scoping meeting.¹³ Following the scoping meeting,

⁹ See generally OAR 860-082-0025, OAR 860-082-0050, OAR 860-082-0060.

¹⁰ See Docket UM 1930, *Staff's Revisions to the Program Implementation Manual*, December 23, 2019, at 34.

¹¹ *Id.*

¹² OAR 860-082-0025 (7)(a).

¹³ See generally OAR 860-082-0025, OAR 860-082-0050, OAR 860-082-0060.

the generator determines what type of study they want to pursue (e.g. feasibility study, system impact study, facilities study) and pays their study deposit.¹⁴ Staff's understanding from discussion with utilities is that interconnection studies take roughly three to six months to turn around under average circumstances.

Staff acknowledges that this timeline creates the scenario that a generator will not have the interconnection requirements for the launch of pre-certification on January 21, 2020. However, Staff hopes that launching the interconnection queue with the information contained in the Plans will provide enough detail and certainty to generators to keep them aware of and ready for key milestones and timelines as the Program launches.

Figure 1 summarizes the utilities' proposed timeline and process to launch the CSP interconnection process.

Figure 1: Summary of CSP Interconnection Launch Timeline and Process

¹⁴ *Id.*

CSP Interconnection Process and Timeline		
January 20th	CSP Queue Opens for Existing Generators to Transition*	<ul style="list-style-type: none"> - CSP Application available on OASIS - Must attest to being a CSP Project - Available to existing generators in the traditional serial queue as of Jan. 1, 2020 - Existing generators assigned CSP queue number - Processed in serial queue order of existing queue
January 21st	Pre-Certification Opens	<ul style="list-style-type: none"> - To apply for Pre-Certifications, generators must: <ul style="list-style-type: none"> → Apply for interconnection → Complete utility scoping meeting → Complete a utility interconnection study - For projects less than or equal to 360 kW-AC / managed by public or non-profit PM generators only need to provide documentation that they have paid for studies. - Projects do not have to join the CSP Queue in order to participate in the CSP
January 31st	CSP Queue Closes for Existing Generators to Transition	
February 3rd	CSP Queue Opens for New Generators*	<ul style="list-style-type: none"> - CSP Application available on OASIS - Must attest to being a CSP Project - Processed in serial queue order
February 25th	Utilities' Combined Tariff at for Approval at Public Meeting	<ul style="list-style-type: none"> - Includes formal detail of interconnection process - Includes pro forma Interconnection Agreement and Power Agreement - Opportunity for Stakeholder input on docket and at meeting
March 31st	OPUC Staff Updates Commission on CSP Interconnection	

**Utilities will begin processing CSP Queue projects in line with Small Generator Interconnection Rules.*

CSP Queue Eligibility. PAC will post MDL data on OASIS on January 16, 2020, and PGE will post its MDL data on OASIS on January 31, 2020. This will make the eligibility criteria more comprehensive for CSP projects, and Staff is very appreciative that the utilities will have made this data available by the launch of the CSP queue.

When recommending the CSP interconnection solutions, Staff encouraged the utilities to consider additional enhancements to the CSP queue eligibility criteria. First, Staff recommended that the utilities consider the ratio of load to generation for all feeders leaving the substation on which the CSP generator proposes to locate. In addition, Staff recommended that the utilities refine the screening criteria to account for differences in the types of loads on the feeder (e.g. industrial loads behave differently than residential loads over the course of the day). Staff supports the utilities plan not to let these refinements hold up the initial launch of the process. In addition, Staff understands that the flow of circuits into specific substations is not static, and electricity can backflow on the transmission bus regardless of the net of generation to load across all circuits into a feeder. Therefore, more work is required to determine if considering eligibility based on all circuits flowing into the substation.

Transitioning Between Queues. The utilities' originally proposed that, "[a] position in a utility's CSP queue would not prevent a project from also maintaining a position in the traditional serial queue, subject to the separate applicable processing and other requirements."¹⁵ The PAC and PGE plans specify that, if a generator chooses to remain in the traditional queue and transition into the CSP queue, the CSP interconnection study will consider the generator's position in the traditional queue as a higher queued generator. Staff supports this recommendation for near-term implementation of the CSP interconnection process due to the complexity of this scenario. If an entity holds both positions, there is no policy that prevents the generator from moving two projects forward—one as a Qualifying Facility (QF) and one as a CSP. The CSP interconnection study should consider this possibility.

This approach preserves the utility's ability to use consistent assumptions for all generators being studied in that area, while providing flexibility to generators with existing positions in the traditional queue to move forward as a QF if they do not achieve pre-certification or certification as a CSP. While the flexibility is helpful in theory, Staff also notes generators will likely be forced to choose a single queue due to the CSP interconnection eligibility requirements. The ability to add a new generator, while leaving the existing generator in queue without exceeding the CSP eligibility limits may not be possible in many areas. Staff will work with the utilities to resolve any issues that arise in practice if a generator seeks to remain in both queues.

Deliverability-driven Transmission Costs. The CSP solution is designed to test the impact of an interconnection process that does not consider deliverability-related transmission upgrades when identifying interconnection upgrades for QFs.¹⁶ While the eligibility criteria are meant to limit the possibility that deliverability upgrades will be identified and borne by ratepayers down the road, PAC remains concerned that this shifting of transmission upgrade costs to ratepayers is still possible in practice.

Therefore, PAC plans to include an information-only section in the CSP interconnection study that identifies whether deliverability-related transmission upgrades would have been identified under traditional QF interconnection practices (NRIS interconnection). PAC is still developing a proposal for next steps if deliverability-related transmission upgrades are identified in the information-only section of the CSP interconnection study. Staff understands that the CSP interconnection queue can launch before this process is established, but finds that PAC should propose a detailed process by the time it files the tariff.

¹⁵ See Docket UM 1930, Joint Utilities' CSP Interconnection Proposal, August 16, 2019, p. 4.

¹⁶ On February 5, 2019, Staff circulated the Department of Justice's finding that Commission rules require CSP projects to interconnect as QFs. See Docket No. UM 1930, Commission Order No. 19-392, Appendix A at 53.

Idaho Power CSP Interconnection Queue. Idaho Power is in the final stages of completing the interconnection study for a 2.95 MW project that has stated its intent to participate in the CSP. Because the Idaho Power initial CSP capacity tier is 3.3 MW, the 2.95 MW project will take up all but 305 kW of Idaho Power's full capacity under the CSP administrative rules. Idaho Power's Plan states that it will create a CSP queue for tracking purposes alone, and will post the separate CSP queue to OASIS. Staff supports Idaho Power's approach to the CSP interconnection process and recommends approval of the Plan.

Solution #2: Begin developing models for cost-sharing between CSP generators.

In October 2019, Staff recommended that the Commission begin exploring mechanisms for cost-sharing of common system upgrades between the generator that triggers the upgrade and subsequent generators utilizing that upgrade.¹⁷ Staff recognized in its recommendation that developing proactive cost-sharing models was too complicated to implement in the near-term. However, the utilities expressed willingness to study two projects jointly to facilitate voluntary, independent cost-sharing among generators (not facilitated by the utilities or OPUC), provided that the projects are located near each other and enter the CSP interconnection queue at the same time.¹⁸ In addition, the PA Team was directed to develop resources that help in the match-making of projects seeking joint study.

The utilities have discovered that developing the near-term joint study solution requires more time, but should not halt the CSP interconnection queue launch. For example, the utilities are still working to develop interconnection agreement terms that will sufficiently hold two parties responsible for a single set of upgrades, and ways to mitigate restudy of all subsequent generators if one party in a joint study withdraws. Staff's goal is for the utilities to have a voluntary, independent joint study solution in place by the tariff filing. Staff also notes that under the current eligibility requirements, there may not be many feeders in which two CSP projects can site under the CSP interconnection queue feeder loading limits.

Solution #3: Allow CSP generators 360 kW or less to meter on the low side of the transformer.

The utilities will allow CSP generators with a nameplate capacity of 360 kW or less to meter on the low side of the transformer in the near-term.¹⁹ The utilities will include the methodology for calculating transformer losses in their combined tariff filing for the

¹⁷ See Docket No. UM 1930, Commission Order No. 19-392, Appendix A at 11.

¹⁸ *Id.* at 10.

¹⁹ *Id.* at 13.

February 25, 2020, Public Meeting. Staff is supportive of this timeline as the utilities prioritize the launch of the CSP queue in the near-term.

Solution #4: Issue a Request for Information for third-party expert interconnection study review services.

Staff will issue a Request for Information for a third-party expert to review interconnection studies on January 13, 2020. The RFI is due back on February 11, 2020. The RFI results will inform whether and how the Commission can move forward with a plan for third-party interconnection review based on the following goals:

- Determine the cost range of the third-party expert's review services;
- Identify the appropriate scope of interconnection study review services and the work product that could result from the services;
- Identify how long the review services would take to complete;
- Gain a better understanding of how many potential consultants are in the marketplace for this work.

Staff will update the Commission on the results of the RFI by the end of March, and subsequent proposals for whether and how to move forward with third-party review.

Solution #5: Provide an enhanced pre-application report for non-profit and public CSP Project Managers.

The utilities will launch the enhanced pre-application report process for certified non-profit and public CSP project managers on January 17, 2020. The utilities will post the pre-application report forms on OASIS. The project manager must submit an attestation within their pre-application report stating that the project is for a non-profit or public entity-managed project.

The utility will receive verification of the project status in one of two ways: either the project manager can provide the utility the registration email from the PA team that notes their verified status, or the utility may refer to the public list on the CSP website that notes whether a registered project manager has been verified as non-profit or public by the PA team. Once the utility verifies the non-profit or public status, the project can receive up to five pre-applications at no cost.

Solution #6: Require PAC to provide additional information on the process to address the backlog of interconnection applications.

PAC submitted information on its queued state-jurisdictional interconnection requests on December 2, 2019.²⁰ Staff appreciates that PAC is taking steps to solve its backlog of interconnection applications. PAC estimates that the studies for the 25 small generators that have an executed study agreement and have not yet received the study will not have a completed study until sometime between the third quarter of 2020 and the first quarter of 2022. Staff is concerned about the impact that not processing any studies will have on the all of the Oregon small generators looking to interconnect with PAC, but hopes that the CSP interconnection process will help with the backlog issue. Staff will continue to monitor and work with PAC on potential solutions.

PAC's Request for Jurisdictional Findings

To facilitate PAC's implementation of its Plan, PAC asks the Commission to expressly address the Commission's jurisdiction over interconnections between CSP projects and their host utilities, and to require PAC to process CSP projects differently than other generators.²¹ PAC notes that the cornerstone of the legal framework supporting the Commission's previous order to implement a CSP-specific interconnection process and queue, as well as its authority over the bill credit rate, is the determination that CSP projects are "virtually" netted against remotely located load.²² PAC notes that this legal construct is implicit throughout the proceedings used by the Commission to implement the CS, but that the Commission has not explicitly acknowledged it.²³

Staff understands that PAC's request is intended to clarify to all potential generators and other jurisdictional authorities why PAC is treating interconnections with CSP projects as subject to Oregon's jurisdiction and differently than non-CSP generators. Staff supports PAC's request that the Commission explicitly address its jurisdiction to clarify for all concerned the basis for the CSP Interconnection process ordered by the Commission.

To facilitate implementation of its CSP Implementation process, Staff recommends the Commission make the following findings:

- The Commission has developed the CSP pursuant to its exclusive jurisdiction over retail sales of electricity, which encompass virtual net metering, and its authority over sales of electricity under PURPA.

²⁰ See Docket No. UM 1930, PacifiCorp's Update on State-Jurisdictional Small Generator Interconnection Applications, December 2, 2019.

²¹ See Attachment A.

²² *Id.*

²³ *Id.*

- The Commission has jurisdiction over interconnections between CSP projects and host utilities, because the interconnections will be used only for retail transactions and PURPA sales.
- In Order No. 19-232, the Commission adopted a CSP interconnection process that each utility must implement and that is available to CSP projects.

Conclusion

In order to implement the CSP interconnection queue in the near-term, the utilities have developed Plans that will allow them to open their CSP queue prior to formalization of the process in a tariff filing. The utility Plans are attached to this memorandum. Staff finds that the Plans are a reasonable reflection of interconnection solutions adopted by the Commission and provide enough detail to keep implementation moving forward prior to the tariff filings in late February. Staff anticipates that the details of the CSP implementation process will continue to be developed through the tariffs and refined with the Commission, stakeholders, and Program Administration Team as new learnings and issues arise.

PROPOSED COMMISSION MOTION:

The Commission should approve the Plans for PAC, PGE, and Idaho Power set forth in this memorandum and its attachments, and direct each utility to file a tariff formalizing their CSP interconnection process and a pro forma Interconnection Agreement for the February 25, 2020, Public Meeting. The Commission should also approve the jurisdictional findings outlined in this memorandum.

PacifiCorp's Bridge Implementation Plan for CSP Processing

On November 8, 2019, the Public Utility Commission of Oregon (Commission) issued an order adopting with modification recommendations contained in the October 4, 2019 Staff Report for the Community Solar Program (CSP), including Staff's interconnection recommendations. Certain critical additional CSP interconnection details require Commission approval before PacifiCorp d/b/a Pacific Power (PacifiCorp) can launch CSP in its service territory. As described in more detail below, the CSP interconnection processing approach is a hybrid between a traditional serial-queue process and a net metering process. As a result, the CSP interconnection approach is a creative construct of first impression, not explicitly supported by any existing set of Commission rules, policies, orders, or Commission-approved tariffs, or pro forma agreements.

In recognition of the Commission's goal of an early 2020 implementation of the CSP interconnection process, PacifiCorp proposes this high-level "bridge" implementation plan, which if approved, would allow PacifiCorp to begin processing CSP interconnection requests. This bridge implementation plan will provide an interim interconnection framework only, until the Commission approves the more robust CSP interconnection details to be filed by PacifiCorp in the form of a CSP interconnection tariff and CSP pro forma interconnection agreement by the end of February 2020.

Approval of this "bridge" implementation plan by the Commission will provide: (1) authority for PacifiCorp to move forward with processing CSP interconnection requests on an interim basis, pending further development of CSP interconnection tariffs and a pro forma CSP interconnection agreement; (2) an affirmation of the Commission's assertion of jurisdiction over CSP interconnections in the manner described below; (3) a directive for PacifiCorp to file CSP interconnection tariff and a CSP pro forma interconnection agreement; and (4) a directive for PacifiCorp to file a CSP Power Purchase Agreement (PPA) tariff and pro forma PPA.¹

Bridge Implementation Legal Framework

Under UM 1930 Order 19-392, eligible CSP projects will be processed and studied separately from the traditional serial queue² (UM 1930 Order 19-392, Appendix A at 6), similar to net metering requests, even though the CSP projects are not actually located behind the meter. The cornerstone of the legal framework supporting this off-queue processing of a select number of "in front of the meter" generators is the determination that CSP projects are "virtually" netted against remotely located load. This virtual net metering construct has long been acknowledged in many Commission workshop settings, filed documents, and memoranda, but never explicitly acknowledged by the Commission. In addition, the primary focus of the virtual net metering construct has been on the potential *rate* implications (e.g., whether the Commission has the authority to set the community solar rate), rather than on the *interconnection* implications (e.g., whether the Commission has the authority to direct "behind-the-meter" interconnection processing

¹ Both the CSP interconnection and PPA will be combined into a single tariff filing.

² PacifiCorp processes all requests for generator interconnection service "in front of the meter" in serial-queue order regardless of the regulatory body with jurisdiction over the service (state or federal), the interconnection voltage requested (distribution or transmission), or the generator size.

for an “in front of the meter” generator). Consequently, the Commission has not, to this point, explicitly expressed a view that the state has jurisdiction over the interconnection service described in the Staff Report and approved by the Commission in UM 1930 Order 19-392.

This clarification is important because it is unclear whether the Federal Energy Regulatory Commission (FERC) would find that the state-created virtual netting associated with the Commission’s CSP is consistent with a traditional net metering scenario involving co-located load and generation and, therefore, that it is a wholesale sale rather than a type of net metering. While such a finding could impact many elements of the Commission’s CSP, most relevant to interconnection service, if the transactions are in fact wholesale sales, then the interconnection service provided to community solar generators is also FERC-jurisdictional. In that case, a party may take issue with community solar interconnection requests being studied like net metering generators, rather than serially processed FERC-jurisdictional generators—an approach that was proposed by the utilities to address staff concerns with queue processing timeframes, but that heavily depends on the community solar transactions being a type of net metering as determined by the state, not wholesale sales.

Assuming the Commission shares this understanding of the legal framework supporting the community solar program and its potential implications on the CSP interconnection queue processing approach—that is, assuming the Commission views the CSP’s virtual net metering construct as one that allows the Commission to assert authority over the types of interconnection contemplated by the developing CSP program—the next section provides a high-level description of the initial CSP queue and initial CSP study work PacifiCorp could conduct under this bridge implementation plan.

Bridge Implementation – Initial Queue, Request, and Study Mechanics

Under this bridge implementation plan, PacifiCorp will take certain initial interconnection steps related to establishment of a new CSP queue and interconnection study work, but will not proceed to execution of a CSP interconnection agreement until the Commission has approved a CSP tariff and pro forma agreement.

1. Establishment of the initial queue

- On January 13, 2013, Oregon Community Solar Program specific pre-application report request forms will be made available on PacifiCorp’s OASIS website.
- Submission of Applications: PacifiCorp will accept applications as follows:
 - January 20, 2020 - Notification will be made by: (1) PacifiCorp through a posting on its OASIS website; (2) Commission Staff through docket UM 1930; and (3) the Program Administrator through appropriate CSP communication lists that projects with a complete application and an existing queue position in the traditional serial queue as of January 1, 2020, may apply for a CSP queue position between January 20, 2020 through January 31, 2020 (also referred to as the “transitional window”), assuming the project(s) satisfy the CSP interconnection application/attestation requirements. Such requests will be in advance of new projects that did not have a position in the traditional serial queue as of January 1, 2020.

- February 3, 2020 - PacifiCorp will begin to accept CSP interconnection applications from new projects that did not have a position in the traditional serial queue as of January 1, 2020.
- Processing of Applications: Upon receipt of a written Commission Order approving the Company's requested findings as described below, PacifiCorp will:
 - Begin processing all applications in the order received;
 - Any new CSP interconnection requests (that did not have a position in the traditional serial queue as of January 1, 2020) will be assigned subsequent CSP queue positions in the order in which the request, and all associated requirements, are received.
- Developers with existing queue position(s) in the traditional serial queue that submit an application into the CSP queue during the transition window will be assigned a queue position in the CSP queue that acknowledges the queue priority in the traditional queue.
 - Developers will need to identify the existing queue position in their CSP interconnection application.
 - PacifiCorp will confirm that the traditional queue position and the new CSP application are for the same project by confirming that site control for both are the same and the same point of interconnection is being requested.
 - As an example, assume developers that have traditional queue positions Q0500, Q0550 and Q0600 all submit applications to the CSP interconnection queue. Assuming the application(s) in the CSP queue are submitted during the transition window, the size of the CSP request(s) meets the eligibility requirements, and all other requirements are met (e.g., deposit, site control), the applications will be given a CSP queue position. Regardless of when, during the transition window, the CSP applications are received, the traditional queue position will determine the CSP queue position. In this example, Q0500 in the traditional queue would be assigned OCSPQ001, Q0550 would be OCSPQ002, and Q0600 would be OCSPQ003.
 - Once the transition window is closed, all CSP applications will be assigned a queue position based on the time it, along with the other requisite requirements, are received regardless of whether the request references an existing traditional queue position.
- PacifiCorp will post a detailed CSP queue document similar to what it does for its traditional queue today on OASIS. It will be separate from the traditional queue postings.

2. Applications

- The Community Solar Project Queue procedures established by PacifiCorp and approved by the Commission in general follow the rules established in OAR 860, Division 82 as they apply to Tier 2 and Tier 4 applications.
- A CSP applicant will be required to attest that the generator meets the certification and eligibility requirements of Commission Rule OAR 860, Division 088 and is a Community Solar Project as the term is defined in Oregon Laws 2016, chapter 28, section 22(1)(a).
- In addition to a CSP project meeting the certification and eligibility requirements under Commission Rule OAR 860, Division 088, a CSP project's eligibility will be based on the

current docket UM 2001 data to be posted on PacifiCorp's OASIS website.³ Per project eligibility will be established during the application as a function of a maximum allowable generation on a circuit as derived by the current circuit data. PacifiCorp will verify this information in its review of an application.

- Project eligibility is strictly determined by load and generation values on the individual circuit specified as part of the application. An aggregated value across circuits from a substation will not be used.
- Projects that have an existing queue position will also need to submit a CSP interconnection application.
- PacifiCorp can assess CSP interconnection *application* fees of \$500 for Tier 2 and \$1,000 for Tier 4 reviews.
- In addition to paying application fees to process CSP interconnection applications, a CSP applicant will pay all actual costs to study and to interconnect their projects. The study deposits will be outlined in both the procedures and the relevant study agreements.

3. Study scope

- PacifiCorp will perform an Energy Resource Interconnection Service study as outlined in the Open Access Transmission Tariff (OATT)⁴ filed with FERC, except it will: (1) modify traditional higher-queued assumptions and (2) subject the resource to a size cap. PacifiCorp will memorialize these details in the system impact study agreement (which will generally track the OAR small generator system impact study agreement) to be executed by the customer and PacifiCorp before commencing the study. These two elements are described in more detail as follows:
 - Higher queued assumptions:
 - PacifiCorp will assume in-service for purposes of the CSP study (1) any existing generators and (2) any interconnection requests that are proposing to interconnect on the same circuit/substation as the CSP request in its system impact study analysis if those interconnection requests:
 - Have a higher priority CSP queue position; or
 - Were submitted into PacifiCorp's traditional interconnection queue prior to the CSP request (including the CSP project under study).
 - Interconnection requests that meet either of the above criteria, but are not proposing to interconnect to the same circuit/substation as the CSP request will not be considered in PacifiCorp's system impact study analysis unless system configuration operations options exist that require them to be considered.
 - Cap:
 - Interconnection requests to PacifiCorp desiring to participate in the CSP will be eligible if the proposed generator, together with all other interconnected and requested generation in the local area, is less than 100

³ As discussed further below, CSP interconnection requests will be eligible if the proposed generator, together with all other interconnected and requested generation in the local area, is less than 100 percent of minimum daytime load (MDL). (UM 1930 Order 19-392, Appendix A at 8).

⁴ As defined in Section 38.2.1 of PacifiCorp OATT.

percent of MDL⁵ on the circuit/substation to which the generator is proposing to interconnect, less any existing or proposed generation on the same circuit/substation (UM 1930 Order 19-392, Appendix A at 8). If a measure of MDL is not available, PacifiCorp will use 30 percent of summer peak load.⁶ This information is posted on PacifiCorp's OATI OASIS website. Interconnection requests that do not meet this criteria will be deemed ineligible for assignment of a queue position in the CSP queue.

- PacifiCorp will also perform a non-binding, informational analysis of the requirements associated with interconnecting the CSP project using Network Resource Interconnection Service (NR).⁷ This non-binding NR-interconnection analysis will be provided in the same system impact study report as the binding interconnection analysis, along with good-faith estimates of both costs and timing of any system upgrades necessary for both types of service.
- Joint Studies: PacifiCorp is still developing the processes on how a joint study will be conducted. As such, it has not been addressed in this bridge implementation plan. The final tariff for the CSP interconnection process will contain more detail. PacifiCorp does not want to delay the CSP launch while it develops the joint study processes.

4. Low Side Metering

- CSP requests that are 360 kW or less will be deemed eligible for low side metering. However, this will require PacifiCorp to use a loss calculation methodology to ensure accurate measurement of the amount of generation that is being delivered to PacifiCorp's system. This loss calculation will be based on an industry standard methodology that utilizes meter manufacturer programming software. The programming software simply requires the input of the power transformer electrical data and then the loss calculated meter data is automatically provided to PacifiCorp.

5. Disputes

- If disputes arise before the Commission has approved a CSP tariff and pro forma agreement between a CSP applicant and PacifiCorp, then Commission Rules OAR 860-082-0080 or 860-082-0085 will apply.

Requested Findings

To provide PacifiCorp the clarity to move forward under this virtual net metering rubric and thus create this new interconnection process, PacifiCorp requests that the Commission state in an order that:

- 1) The Public Utility Commission of Oregon has developed the CSP under the auspices of state jurisdiction of the retail sale of electricity and the ability of the state to develop rules implementing net metering or in this case "virtual" net metering

⁵ PacifiCorp will post MDL to OASIS by January 16, 2020.

⁶ The equation is: (Summer Peak*30%) – (Existing + Planned Generation).

⁷ As defined in Section 38.2.2 of the OATT.

- 2) As such the Public Utility Commission asserts its jurisdiction over the interconnection of projects that are participating in this program, and that interconnect to the utility's system.
- 3) To facilitate this program, the Public Utility Commission of Oregon directs the utility to develop a unique interconnection queue for projects that seek to participate in the CSP.
- 4) Projects that have applied for interconnection under the existing, non-CSP interconnection processes are eligible to participate in the CSP relying on the results of any interconnection agreement derived from that process.
- 5) The Public Utility Commission of Oregon directs that due to the unique aspects of the CSP program, the CSP interconnection process and ultimate interconnection agreement is only available for projects that participate in the program. Projects that do not successfully certify to participate in the CSP program cannot use the interconnection process or ultimate agreement to interconnect to the utility system or participate in any other utility program.
- 6) The Public Utility Commission of Oregon directs PacifiCorp to file (a) CSP interconnection tariff and a CSP pro forma interconnection agreement; and (b) a CSP PPA tariff and a CSP pro forma PPA.
- 7) The Public Utility Commission of Oregon authorizes PacifiCorp to utilize the bridge implementation plan for processing CSP interconnection requests.

PGE Community Solar Interconnection Implementation Plan

Pursuant to Commission Order No. 19-392 in Docket No. UM 1930 and subsequent workshops and discussions with Commission Staff, Pacific Power Company, and Idaho Power Company, Portland General Electric (PGE) provides the enclosed Community Solar Program (CSP) Interconnection Implementation Plan to support the timely launch of the CSP on January 21, 2020. Below we provide initial guidelines to allow the processing of interconnection applications prior to having Commission approved CSP power purchase agreement, interconnection agreement, and an associated tariff (CSP tariff).

While the Commission approved the Joint Utilities' community solar interconnection proposal as modified by Commission Staff (see Commission Order No. 19-392), additional implementation details need to be established prior to program launch. To that effect, until all necessary forms and agreements are finalized and approved by the Commission, PGE plans to support the CSP as follows:

1. Interconnection Pre-Applications

PGE will offer Pre-Applications for Community Solar starting on January 13, 2020. Pre-Applications can be submitted online through our PowerClerk platform (<https://pgeqf.powerclerk.com>) and each Pre-Application requires payment of a \$300 application fee. CSP Managers who have been certified by the Third-Party Program Administrator (PA) as a non-profit or governmental based project can receive up to five pre-applications at no cost. Program Managers must provide written notice from the Third-Party Program Administrator of their non-profit or governmental based status to receive up to five pre-applications at no cost.

2. Transition between Qualifying Facilities (QFs) and CSP interconnection queue

Beginning January 20, 2020, PGE will notify all existing QFs currently in the traditional serial interconnection queue of the opportunity to transition their project to the CSP Interconnection Queue.

In order to qualify for transition to the CSP queue, existing projects must have a complete interconnection application and been assigned a queue number in the Small Generator Interconnection Queue prior to January 1, 2020.

- a. Existing QFs will have between January 20, 2020 at 8:00 PM Pacific Standard Time (PST) and January 31, 2020 at 5:00 PM PST to submit a new interconnection application under the CSP and attest to abide by the CSP rules and tariffs. Any QF electing to move to the CSP within this time frame will be considered in the CSP interconnection queue in the order of its previous serial interconnection queue position.
- b. Should any existing QF wish to transition to the CSP Interconnection Queue after January 31, 2020 at 5:00 PM PST, they will be considered a new CSP interconnection

request and assigned CSP interconnection queue position in the order in which the request, and all associated requirements, are received.

3. CSP Interconnection Applications

Following the two-week transition period PGE will begin accepting interconnection applications for all CSP projects on February 3, 2020. Applications will be accepted online through PGE's PowerClerk platform. Interconnection applications for CSP will be placed in a separate CSP interconnection Queue as outlined in the Study Scope described below, in Section 5.

- a. In accordance with Commission Order No. 19-392, in order to be eligible for the CSP Interconnection Queue, the CSP generator together with all other interconnected generators and generators requesting interconnection on the same feeder and substation, must be less than 100 percent of minimum daytime load (MDL). If a measure of MDL is not available for the feeder and substation associated with the point of interconnection, PGE will use 30 percent of the summer peak load on the feeder and or substation.
- b. Participants can determine their eligibility for the CSP interconnection queue by reviewing the distribution system data available on PGE's OATI OASIS site. PGE will be posting the MDL by the end of January 2020.
- c. PGE's CSP Interconnection Queue will be posted on PGE's OATI OASIS site.
- d. Within 10 business days of receipt of a CSP interconnection application and application fee PGE will review the application for completeness. If the interconnection application is deemed complete the project will receive their CSP queue number.

4. Interconnection Application Fees:

CSP projects will need to apply under a Tier 2 or a Tier 4 interconnection application as described in OAR 860-082-0025.

- a. A Tier 2 application is for projects with a nameplate capacity of 2MW or less. Tier 2 applicants must pay a \$500 application fee.
- b. A Tier 4 application is for projects with a nameplate capacity of 3 MW or less. Tier 4 applicants must pay a \$1000 application fee.

PGE will not evaluate individual applications for completeness until PGE receives the application fee.

5. Study Scope

PGE will follow the Small Generator Interconnection Rules (OAR 860-082) when studying all CSP applications with the exceptions noted below. This includes the study processes, procedures, fees and timelines.

PGE will perform an Energy Resource Interconnection Service study, except it will: (1) modify traditional higher-queued assumptions and (2) subject the resource to a size cap. PGE will memorialize these details in the system impact study agreement (which will generally track the OAR small generator system impact study agreement) to be executed

by the customer and PGE before commencing the study. These two elements are described in more detail as follows:

Higher queued assumptions:

- a. PGE will assume in-service for purposes of the study (1) any existing generators (including non-CSP) and (2) any interconnection requests that are proposing to interconnect on the same feeder/substation as the CSP request in its system impact study analysis if those interconnection requests:
 - i. Have a higher priority CSP queue position; or
 - ii. Were submitted into PGE's traditional interconnection queue prior to the CSP request (including the CSP project under study).
- b. Interconnection requests that meet either of the above criteria but are not proposing to interconnect to the same feeder/substation as the CSP request will not be considered in PGE's system impact study analysis unless system configuration operations options exist that require them to be considered.

Cap:

- a. Interconnection requests to PGE desiring to participate in the CSP shall be sized such that the maximum amount of generation is no larger than 100% of the minimum daytime load on the feeder/substation to which the generator is proposing to interconnect, less any existing or proposed generation on the same feeder/substation (UM 1930 Order 19-392, Appendix A at 8).¹ This information is posted on PGE's OATI OASIS website. Interconnection requests that do not meet this criteria will be deemed ineligible for assignment of a queue position in the CSP queue.
- b. When applicable, PGE will also perform a non-binding, informational analysis of the requirements associated with interconnecting the CSP project using Network Resource Interconnection Service (NR). This non-binding NR-interconnection analysis will be provided in the same system impact study report as the binding interconnection analysis, along with good-faith estimates of both costs and timing of any system upgrades necessary for both types of service.
- c. CSP applicants will pay the actual study costs incurred by PGE.

Generators Joint Study Process:

PGE currently will not be conducting joint studies for projects that wish to share interconnection costs. The joint study process is complicated, and procedures need to be developed to clearly outline the qualifications for such a process. The joint study process will be included in PGE's CSP tariff.

6. Metering

Projects with a nameplate rating of 360 kW or less will need to be connected directly to PGE's distribution system (not behind an existing meter) and can request to be metered on the secondary side (low side) of the distribution transformer. Projects requesting secondary metering will have the transformation losses calculated as part of the amount of generation received by PGE. The methodology will be included in PGE's CSP tariff.

Projects with a nameplate rating larger than 360 kW will be required to be connected directly to PGE's distribution system at primary voltage.

¹ The equation is: (Summer Peak*30%) – (Existing + Planned Generation).

Attachment C

IDAHO POWER COMMUNITY SOLAR IMPLEMENTATION PLAN

In accordance with the Public Utility Commission of Oregon Staff (“Staff”) request of December 20, 2019, Idaho Power Company (“Idaho Power” or the “Company”) submits the following plan to implement the community solar interconnection process adopted by the Public Utility Commission of Oregon (“Commission”) in Order No. 19-392.

Idaho Power has worked diligently with Staff and stakeholders to develop a viable community solar program, including a streamlined interconnection process. Idaho Power remains committed to expeditious implementation of the community solar program. To that end, Idaho Power can begin implementation of the community solar interconnection process set forth below immediately upon approval by the Commission. Prompt implementation will allow immediate processing of community solar interconnection requests while more formal processes are established (potentially including community solar-specific interconnection agreements and/or tariffs).

Idaho Power’s implementation plan is specifically tailored to its unique circumstances. Most notably, Idaho Power has not been overwhelmed with interconnection requests that have delayed the study process. Therefore, there is no need to implement a more expeditious interconnection process for community solar projects. In addition, Idaho Power has nearly completed the interconnection study process for a 2.95 MW project that intends to participate in the community solar program. The interconnection study process identified no additional network upgrades required for interconnection and the Company believes that the project is well positioned to obtain the necessary certifications to participate in the community solar program. Idaho Power’s initial community solar capacity tier is 3.3 MW; therefore, the proposed 2.95 MW project will utilize all but 305 kW of Idaho Power’s initial capacity allocation.

The community solar interconnection process is marked by two key modifications to the otherwise applicable interconnection process: (1) eligible community solar projects will be tracked in a separate queue; and (2) eligible community solar projects will be studied for Energy Resource (“ER”) interconnection service. Idaho Power’s proposed implementation plan focuses on these two key modifications and describes how Idaho Power recommends implementing each.

Community Solar Queue

Idaho Power proposes to create a separate community solar queue that will be used for tracking purposes only but will not impact the interconnection study process. As noted above, the volume of Idaho Power’s interconnection requests is modest and the Company’s current interconnection queue is not backlogged. Idaho Power is therefore readily able to meet all applicable interconnection study timelines and milestones. Because Idaho Power is currently able to meet applicable study timelines, studying community solar requests in a separate queue would not expedite the

interconnection study process or otherwise affect the results.¹ In other words, the Company's normal interconnection study process using the traditional serial queue is the most expeditious way to study a community solar project.

Although Idaho Power does not propose a change to how the queue affects the study process for community solar projects, the Company will separately track and maintain a community solar interconnection queue. The Company will post the separate community solar queue to OASIS. For administrative efficiency, community solar projects will maintain the same queue number in both the traditional and community solar queues.

Idaho Power's queue proposal is designed to minimize confusion and allow for efficient administration of the interconnection study process without adversely impacting interconnection customers. While the Company's approach differs from that of PacifiCorp and Portland General Electric Company ("PGE") because Idaho Power will not separately study community solar projects outside of the traditional queue, as discussed above, both the timing and substance of the community solar project's interconnection study will not be impacted by Idaho Power's proposal. If the Commission is inclined to require Idaho Power to adopt a process that does require a separate community solar queue for study purposes, or if Idaho Power's traditional queue becomes backlogged, then Idaho Power supports the implementation process proposed by PacifiCorp in its January 6, 2020, submission to Staff.

Study Scope

As required by Order No. 19-392, Idaho Power will study community solar projects for ER interconnection service. Consistent with its current practices, and federal requirements, Idaho Power will still be required to designate the community solar project as a Network Resource. Therefore, the Company will still identify the network upgrades required to designate each community solar project as a Network Resource.² If the Company identifies additional network upgrades required to serve load beyond those identified in the ER interconnection study, then the Company will make a subsequent filing with the Commission regarding allocation of the additional network upgrade costs.

Designation as a Community Solar Project

Idaho Power recommends that a project intending to utilize the community solar interconnection process (including the process for enhanced pre-application reports) submit a formal attestation to the Company indicating such an intent. Moreover, a project will be eligible for the community solar interconnection process only if the project meets the size and siting requirements approved by the Commission in Order No. 19-

¹ To be clear, the interconnection study for a community solar project will consider the impact of the same pending interconnection requests regardless of whether the community solar project is studied in the traditional queue or a separate queue.

² These network upgrades will be identified in either the interconnection or transmission service study process, consistent with current practices.

392. For Idaho Power, a project is eligible for the community solar interconnection process if the proposed project, together with all other interconnected and requested generation in the local area, is less than 100 percent of minimum daytime load.