

**PUBLIC UTILITY COMMISSION OF OREGON
STAFF REPORT
PUBLIC MEETING DATE: April 20, 2021**

REGULAR X CONSENT _____ EFFECTIVE DATE _____ Not Applicable _____

DATE: April 12, 2021

TO: Public Utility Commission

FROM: Caroline Moore

THROUGH: Bryan Conway **SIGNED**

SUBJECT: OREGON PUBLIC UTILITY COMMISSION STAFF:
(Docket No. UM 1631)
Marquam Creek Solar, LLC, for Waiver of Small Generator Interconnection
Rules OAR 860-082-0025(1)(c).

STAFF RECOMMENDATION:

Staff recommends the Public Utility Commission of Oregon (Commission) deny Marquam Creek Solar, LLC's (Marquam Creek Solar) Petition for Waiver of Small Generator Interconnection Rules OAR 860-082-0025(1)(c) and instead grant a 60-day waiver of OAR 860-082-0025(7)(e) and any other relevant timelines that would otherwise require Marquam Creek Solar to execute an interconnection agreement and make milestone payments or be removed from the interconnection queue.

DISCUSSION:

Issue

Whether the Commission should approve Marquam Creek Solar's Petition for Waiver of the Oregon Small Generator Interconnection Rules OAR 860-082-0025(1)(c). This rule requires generators to reapply for interconnection if the generator proposes to make change the nameplate capacity. Marquam Creek Solar has requested this change to avoid triggering expensive interconnection upgrade costs, which would be reassigned to a lower queued project if the waiver is granted.

Applicable Rule or Law

OAR 860, Division 082 outlines the State's Small Generator Interconnection Procedures (SGIP). Under OAR 860-082-0010, the Commission may waive any of its Division 082 rules for good cause shown.

OAR 860-082-0025(1)(c) requires queued generators to submit a new interconnection application when proposing to make a change to the facility other than a minor equipment modification. The SGIP further specifies that generators must reapply when proposing changes the facility's nameplate capacity and that the public utility will assign a new queue position when the generator submits a new application.¹

OAR 860-082-0025(7)(e) requires a generator to execute an interconnection agreement or request negotiation of a non-standard interconnection agreement within 15 business days or the application is deemed withdrawn.

OAR 860-082-0080 outlines a procedure for an interconnection applicant or public utility to petition the Commission for the arbitration of disputes arising during review of an application to interconnect a small generator facility or during negotiation of an interconnection agreement.

OAR 860-082-0085 specifies the procedure for a small generator interconnection applicant or public utility to file a complaint for the enforcement of an interconnection agreement. OAR 860-002-0000 specifies the applicability and procedure for alternative dispute resolution applicable to complaints under OAR 860-082-0085.

Commission Order No. 19-438 adopted the Oregon Community Solar Program (CSP) Program Implementation Manual (PIM). The PIM outlines the requirements for a project to become and remain pre-certified in the CSP. The PIM allows Project Managers (PMs) to amend their project size by less than 200 kW without losing their position in the CSP pre-certification queue.²

Analysis

Background

Marquam Creek Solar is a planned community solar program facility. On July 24, 2017, Marquam Creek Solar submitted a complete application to interconnect a 2.0 MW solar photovoltaic (PV) Qualifying Facility (QF) to Portland General Electric's (PGE) Scott's

¹ OAR 860-082-0025(1)(b)(A).

² See Docket No. UM 1930, Community Solar Program Implementation, Commission Order No. 19-483, Appendix A, Oregon Community Solar Program Implementation Manual, p. 66.

Mills-13 feeder connected to the Scotts Mills substation in Clackamas County, Oregon.³ PGE assigned Marquam Creek Solar queue number SPQ0093. A review of PGE's small generator interconnection queue indicates that there were five small generators totaling over 12 MW in nameplate capacity in queue ahead of Marquam Creek Solar at the time it submitted its application.

Marquam Creek Solar returned a signed Interconnection Agreement for a Small Generator Facility (SGIA) on October 23, 2018. The SGIA assigned Marquam Creek Solar responsibility for \$268,350 of interconnection facilities and estimated an in service date of February 28, 2020.⁴ On January 11, 2019, PGE notified Marquam Creek Solar that withdrawal of the highest queued generator requesting interconnection on the Scotts Mills-13 feeder required re-study of subsequent interconnection request on the feeder.

The January 11, 2019, communication from PGE states the following:

- Marquam Creek Solar would be required to execute a new System Impact Study application and pay a \$1,000 study deposit by February 4, 2019, to continue.
- Activity under the previously issued SGIA would be paused and no milestone payments would be due during the re-study process.
- Changes to the SGIA that Marquam Creek Solar signed and returned the previous October could be made following the results of the re-study.

Review of Exhibit 1⁵ and Exhibit 3⁶ from Marquam Creek Solar's petition for waiver shows that Marquam Creek Solar committed to re-study on February 1, 2019, and PGE countersigned the original SGIA on February 7, 2019.

PGE performed multiple System Impact (SIS) and Facilities (FaS) Re-studies as higher queued projects continued to withdraw.⁷ These re-studies assigned increasing interconnection facilities and costs to Marquam Creek Solar.⁸ Ultimately, PGE conducted a SIS re-study dated January 21, 2020, which indicated that no higher queued projects remained.⁹ This SIS assigned Marquam Creek Solar \$1.1 million in interconnection facilities. The bulk of these facilities was "3v0 sensing and 59N protection", which is protective equipment at the distribution substation that PGE

³ See PGE's Open Access Same-Time Information System (OASIS), Small Generator Interconnection Queue, Accessed 4/1/2021.

⁴ See Docket No. UM 1631, Marquam Creek's Petition for Waiver of OAR 860-082-0025(1)(c) (hereinto referred to as "Petition for Waiver"), January 25, 2021, Exhibit 1, pp 13 and 17 of 18.

⁵ Ibid, Exhibit 1, p. 13 of 18.

⁶ Ibid, Exhibit 3, p. 3.

⁷ Ibid, pp. 4-5.

⁸ Id.

⁹ Ibid, Exhibit 6, pp. 7-8.

requires when an interconnection applicant is expected to cause generation to exceed minimum daytime load (MDL) in the local area.¹⁰ In addition to substation upgrades, this protective equipment requires a transfer-trip system that communicates with the generator (transfer-trip will also be required for each subsequent generator that comes online in the area). PGE's system impact study estimated that the transfer trip system required 2.7 miles of fiber optic cable to be run from the substation to the point of interconnection. The January 2020 system impact study also included a 24-month construction schedule.¹¹

Following these results, Marquam Creek Solar states that it:

[H]ad serious concerns with the analysis in PGE's various studies and therefore engaged in extensive discussions with PGE to attempt to avoid being subjected to unnecessary and cost-prohibitive interconnection facilities. PGE and Marquam Creek Solar continue to disagree on many issues.¹²

Marquam Creek Solar indicates that it could not resolve its technical concerns with PGE's SIS analysis, nor would PGE agree to allow Marquam Creek Solar to reduce its nameplate capacity below the threshold that triggers 3v0 sensing (including transfer-trip) in the SIS.¹³ Therefore, Marquam Creek Solar submitted a petition for waiver of the rules that require queue position re-assignment when a generator downsizes during the interconnection process on January 25, 2021.

Marquam Creek Solar further adds that PGE refused to waive the SGIP milestones requiring Marquam Creek Solar to continue with an FaS or be removed from the queue, pending the Commission's decision on its petition for waiver.

Following this petition for waiver request, PGE completed an updated FaS for Marquam Creek Solar. The March 15, 2021, FaS identified transfer-trip for Marquam Creek Solar would require the replacement of transmission poles that cost nearly \$2.7 million, increasing its total interconnection facilities from the \$1.1 million SIS estimate to \$3.7 million.¹⁴

¹⁰ Ibid, Exhibit 6, pp. 6-7.

¹¹ Ibid, Exhibit 6, p. 7.

¹² Ibid, p. 5.

¹³ Id.

¹⁴ See UM 1631, PGE's Comments on Marquam Creek Solar, LLC's Petition For Waiver (hereinto referred to as PGE Response), April 1, 2021, Exhibit 1, p. 7.

Marquam Creek Solar's Arguments

Marquam Creek Solar states that it seeks to reduce the size of SPQ0093 by 88 kW (or roughly 4.4 percent), “or such other reasonable amount PGE deems necessary to avoid aggregate generation on the feeder exceeding daytime minimum load.”¹⁵ Marquam Creek Solar believes that this resizing is “de minimis” and allows SPQ0093 to cause aggregate generation to reach 90 percent of MDL, which avoids a large portion of the required system upgrade costs identified in the January 2020 SIS.¹⁶

Marquam Creek Solar provides that granting the waiver request is in the public interest and there is good cause for granting because:

- **Unreasonable and unjust result:** The need to downsize is no fault of Marquam Creek Solar, but the result of cascading re-study and PGE’s evolving methodologies and protection requirements.¹⁷ Marquam Creek Solar points out that the original SGIA did not explicitly state that the facilities may change upon re-study and argues that, unlike the higher queued projects that have withdrawn, it would not have triggered the MDL if PGE had not allowed net metering generators to come online while Marquam Creek’s application was pending.¹⁸
- **Inconsistency with Best Practices:** The Commission is too rigidly applying its requirements to reapply for interconnection when changing the nameplate capacity.¹⁹ Marquam Creek Solar states that FERC allows for one-time capacity reductions for large generators following the SIS and FaS, and that both PGE and PacifiCorp have agreed to allow small generators to downsize in the past.²⁰
- **Unique circumstances:** The Commission’s waiver policy is designed to address, “unique circumstances in an area of rapidly changing technologies and evolving,” and that the Commission did not envision this level of interconnection requirement would be assigned to generators when adopting the SGIP.²¹ Finally, Marquam Creek Solar argues that the Commission has acknowledged that a generator may need to change its size when adopting the CSP pre-certification queue policies.²²

¹⁵ Petition for Waiver, p. 7.

¹⁶ *Ibid*, p. 6.

¹⁷ *Ibid*, p. 14-17.

¹⁸ *Id.*

¹⁹ *Ibid*, pp. 9-14.

²⁰ *Id.*

²¹ *Ibid*, p. 8.

²² *Ibid*, p. 18.

PGE's Response

On April 1, 2021, PGE submitted comments providing additional information about Marquam Creek Solar's request for a waiver. These comments neither oppose nor support Marquam Creek's request.²³

PGE's comments respond directly to two of Marquam Creek Solar's arguments about inconsistency with best practices:

- PGE argues that the examples of jurisdictions that allow downsizing at the SIS and/or FaS phase are not analogous to the impacts of granting this petition, because those policies are specific to large generators facing network upgrades that will not be borne directly by lower queued generators.²⁴
- In addition, PGE notes that the example of PGE allowing a small generator to downsize in the past is not applicable to this petition, because there was no lower queued generator to consider and denying the request would have resulted in the same outcome as granting it.²⁵
- Finally, PGE argues that the small generator interconnection queue is not comparable to the CSP pre-certification queue.²⁶ Further, PGE notes that CSP interconnection rules also require generators to reapply upon any change to nameplate capacity.²⁷

PGE's comments also provide information about the impacts of granting or not granting the requested waiver on both Marquam Creek Solar and the lower queued SPQ0247 (See Figure 1).²⁸ PGE's comments suggest that a decision to grant this waiver is a direct decision by the Commission to make one of these generators uneconomic, while denying the petition allows the adopted SGIP to dictate the outcome.²⁹

²³ PGE Response, p. 1.

²⁴ Ibid, pp. 12-13.

²⁵ Ibid, pp. 13-14

²⁶ Ibid, pp. 9 – 10.

²⁷ Id.

²⁸ Ibid, pp. 8-11.

²⁹ Ibid, p. 11.

Figure 1. PGE's Estimate of the Impact of Marquam Creek's Request to Downsize

Scenario	Marquam Protection Cost*	SPQ247 Protection Cost*
Waiver Request Denied—Marquam constructed first at original size/SPQ0247 constructed second	\$3.7 million	\$540,000
Waiver Request Denied—Marquam constructed second at reduced size /SPQ0247 constructed first	\$3.7 million	\$0
Waiver Request Denied—Marquem withdraws/SPQ0247 constructed first	\$0	\$0
Waiver Request Granted—Marquam constructed first at reduced size/SPQ0247 constructed second	\$321,000	\$1.1 million

* Costs listed are estimated cost of the protection measures at issue in the Waiver Petition (hot line blocking, 3VO sensing, transfer trip, associated pole replacement). Both projects will incur other interconnection costs not at issued in the Waiver Petition and not identified here (e.g., distribution modifications).

Finally, PGE provides the following additional comments:

- PGE argues that a Commission decision to grant a waiver will likely result in increased requests for similar waivers.³⁰
- PGE agrees that re-study is not the fault of lower queued generators. PGE expresses willingness to explore queue reforms that will prevent cascading re-studies and their impacts on *future* interconnection applicants.³¹

Marquam Creek Solar's Response to PGE

On April 8, 2021, Marquam Creek Solar submitted its response to PGE's comments. Marquam Creek Solar argues that nothing in PGE's comments justifies a denial of the petition, adding the following concerns:

- The FaS issued by PGE on March 15, 2021 suggests that Marquam Creek Solar is no longer triggering a requirement for 3v0 sensing;³²
- PGE improperly allowed net metering facilities to advance ahead of Marquam Creek Solar;³³ and
- There are examples of small generator interconnection procedures that allow downsizing, including California's Rule 21 and New York's SIR.³⁴

Staff's Findings

³⁰ Ibid, p. 12.

³¹ Id.

³² See Marquam Creek Solar, LLC's Response to Comments of Portland General Electric Company, April 8, 2021, pp. 3-4.

³³ Ibid, p. 3.

³⁴ Ibid, pp. 6-7.

While Marquam Creek Solar has identified its concerns with a number of PGE's analyses and actions, as well as, components of the Commission approved SGIP and net metering interconnection policies, this Staff report only addresses the request for a waiver of OAR 860-082-0025(1)(c).

Staff does not agree with Marquam Creek Solar's arguments for granting this petition for waiver. As stated previously, Staff finds that OAR 860-082-0025(1)(c) is important for maintaining fairness and efficiency within the SGIP's serial interconnection queue framework.³⁵ This policy prevents queue manipulation and limits the situations in which cascading re-study is necessary. Staff's arrived at this finding for the following reasons:

1. Marquam Creek Solar has not demonstrated that it is facing unique circumstances not contemplated at the time the SGIP was adopted:

In addition to limiting the circumstances under which a re-study may be necessary, the policy at issue prevents generators from doing what Marquam Creek Solar proposes with its petition: downsizing at a point in the interconnection process that harms a lower queued generator.

In addition, Staff finds that Marquam Creek Solar is similarly situated to the five higher-queued generators proposing to interconnect in the same area at the time Marquam Creek Solar submitted its interconnection request. These generators faced the same limitations of the Scotts Mills-13 feeder and four of them also faced the impacts of a re-study.³⁶

2. Marquam Creek Solar has not demonstrated that it is facing unreasonable or unjust circumstances.

Staff agrees that PGE failed to provide transparent public information for small generators at the time Marquam Creek Solar applied for interconnection, including posting its small generator interconnection queue, completed interconnection studies, and transparent information about its distribution system that help generators preemptively identify sizing issues. This continues to be an area of concern for Staff.³⁷ However, Marquam Creek Solar has not demonstrated that it did not have access to information about the potential impacts of higher queued generators and re-study on the economics of its

³⁵ See UM 1631, Staff Report for the June 16, 2020 Public Meeting Item No. RA3 Carnes Creek Solar LLC's Petition for Waiver of OAR 860-082-0025(b) & (c).

³⁶ Review of the interconnection queue suggests that Marquam Creek Solar is not the highest queued generator requesting to interconnect at 2.0 MW nameplate capacity, either.

³⁷ This information was made publicly available in 2019 in compliance with Commission Order No. 19-272.

interconnection. Staff believes that it is reasonable to expect that Marquam Creek Solar would make efforts to understand that its interconnection costs were subject to change based on the following:

- Reviewing the information provided about higher-queued generators in the SIS report. While neither PGE nor Marquam Creek Solar provided a copy of the original 2018 SIS, the April 26, 2019 SIS re-study and August 13, 2019 FaS re-study state that the interconnection of SPQ0093 is dependent on higher queued projects completing their interconnection requirements. They also stated that, “[a]ll active higher queued generation interconnection requests will be considered in this study and are identified below. If any of these requests are withdrawn, the PGE reserves the right to restudy the request, as the results and conclusions contained within the study could significantly change.”³⁸
- Reviewing PGE’s January 11, 2019 email, which indicated that changes may be made to the interconnection agreement pending the result of the first re-study.³⁹ Marquam Creek Solar has not demonstrated that it took steps to request information from PGE about the upgrades assigned to the higher queued generators that could ultimately be assigned to its lower-queued request before executing its February 1, 2019 SIS study agreement.
- Reviewing interconnection queue and study data when they were posted at the end of 2019.

3. Marquam Creek Solar has not demonstrated that “rigidly” implementing OAR 860-082-0025(1)(c) is inconsistent with best practices.

Staff is concerned about the orderly operation of the queue if the Commission departs from its policy regarding down-sizing on a one-off basis. Marquam Creek Solar’s response comments overlook the nuance of PGE’s arguments about the impact of granting this waiver. Staff finds that denying the petition is not the same as picking one generator over another; it is a decision to apply the existing framework, which among other things ensures consistent treatment of all small generators.

Staff agrees with PGE that the two LGIP examples provided in the Petition for Waiver are not directly transferable to Marquam Creek Solar. Staff similarly agrees that the policies for operating the CSP pre-certification queue are not

³⁸ Petition for Waiver, Exhibit 3, pp. 6-7; Exhibit 4, pp. 6-7.

³⁹ Petition for Waiver, Exhibit 3, pp. 6-7; Exhibit 2.

directly applicable. The policies for resizing in the CSP pre-certification queue do not indicate that size changes can happen without the generator submitting a new application for interconnection.

Staff is interested in understanding the New York and California policies that Marquam Creek Solar provides as examples of other jurisdictions allowing some degree of downsizing for small generators without losing queue position. Staff supports an exploration of policies that provide for downsizing in certain situations (and will be applied consistently) in UM 2111 or another investigation that allows a meaningful review by interested parties.

Additional Considerations

Marquam Creek Solar states it has other concerns about PGE's interconnection analysis and engineering standards, including new information in the updated FaS issued March 15, 2021. Marquam Creek Solar's petition has also highlighted challenges created by the implementation of the Commission's cost allocation practices and net metering policies. Staff finds that these concerns need to be better substantiated and considered within the appropriate dispute or complaint process. These concerns will not be independently addressed in this petition for waiver. However, Marquam Creek Solar could consider taking one of the following actions to address the concerns raised:

- Engage in the alternative dispute resolution process outlined in OAR 860-082-0080 and OAR 860-002-0000.
- Initiate a complaint as outlined in OAR 860-082-0085; or
- Engage the CSP Third-Party in a review of PGE's interconnection analysis and engineering requirements.

In the event that Marquam Creek Solar engages in one of the resolution processes above, Staff recommends that participants consider opportunities that will not simply put one or many future distributed generators in the same position as Marquam Creek Solar, such as providing a test case for:

- Lower cost alternatives to the 3v0 sensing equipment. For example, considering whether a distributed battery storage facility could provide a lower cost option;
- New cost allocation policies that will not place major upgrades on a single generator once 90 or 100 percent of the MDL has been exceeded.
- Alternatives to running fiber optic cable to the point of interconnection; and/or

Staff encourages PGE to be creative in finding solutions outside of the examples listed above.

Conclusion

Staff finds that Marquam Creek Solar has not demonstrated good cause to receive a waiver of OAR 860-082-0025(1)(c). This policy preserves the integrity of the serial queue and should not be waived on a one-off basis.

Staff notes, however, that its recommendation is specific to the request to change the nameplate capacity of the SPQ0093 without losing its queue position. Staff's recommendation does not address whether Marquam Creek Solar has grounds to engage in an appropriate complaint or dispute resolution process with PGE and/or engage the CSP third party reviewer to address its range of concerns with PGE's interconnection analysis and engineering standards.

To provide opportunity for the alternative dispute and CSP Third Party review processes suggested above, Staff recommends that the Commission grant a temporary waiver of OAR 860-082-0025(7)(e), and any other relevant timelines, which would otherwise require Marquam Creek Solar to execute an interconnection agreement and make milestone payments or be removed from the queue. The temporary waiver would be for 60 days, or until Marquam Creek Solar agrees to execute an SGIA. This timeline is based on Staff's estimate of the time that PGE would require to re-study SPQ0247 if the Commission grants Marquam Creek Solar's petition for waiver.

PROPOSED COMMISSION MOTION:

Deny Marquam Creek Solar, LLC's Petition for Waiver of OAR 860-082-0025(1)(c), and instead grant a 60-day waiver of OAR 860-082-0025(7)(e) and any other relevant timelines that would otherwise require Marquam Creek Solar to execute an interconnection agreement and make milestone payments or be removed from the interconnection queue.