

March 25, 2022

VIA ELECTRONIC FILING

Public Utility Commission of Oregon
Attn: Filing Center
201 High Street SE, Suite 100
Salem, OR 97301-3398

Re: UM 2111 – PacifiCorp Responses to Additional Questions

PacifiCorp d/b/a Pacific Power (PacifiCorp) provides these responses to the Public Utility Commission of Oregon Staff’s Additional Questions issued March 11, 2022 in Docket UM 2111 Investigation into Interconnection Process and Policies. As described in Staff’s Additional Questions, these responses will help more fully focus the issues and prioritization in this docket. PacifiCorp appreciates the opportunity to respond and provides its response below.

- 1. Given Staff’s concerns with interconnection issues being a roadblock to the projects driven by state policy (including incentives and grants), are Staff’s proposed Group 1 issues the three most effective issues for these specific generators to cost-effectively interconnect? If not, which three issues are and why?**

PacifiCorp Response: Staff has not specifically identified the issues Staff refers to as roadblocks to interconnection. For example, it is unclear whether Staff believes the roadblocks are process-driven, cost-driven, or something else. The more specificity Staff can provide with respect to the issues that drive Staff’s question, the more likely it will be that stakeholders can provide specific, meaningful feedback on possible methods for facilitating a pathway to meeting Staff’s specific goals with respect to interconnecting priority generators.

That said, PacifiCorp believes that the issues in Group 1 may be more susceptible to prompt resolution than some of the issues in Group 4, which may take more time and effort to resolve in a way that provides durable solutions. For that reason, addressing the Group 1 issues first would be an effective approach given those issues appear to be resolvable more promptly and implemented in a timely manner.

To the extent Staff is focusing first on Group 1 issues, PacifiCorp suggests the working group focus on whether a cluster study approach could be used for “modernizing the screening and interconnection study practices.” As Commission Staff is aware, in Docket UM 2108, PacifiCorp received approval to reform its Small Generator Interconnection Procedures (SGIP) and its Large Generator Interconnection Procedures (LGIP) for Oregon-jurisdictional generators. The Commission approved the revised procedures in Order No. 20-268. Primary components of the revised processes include:

- Annual Cluster Studies in place of serial system impact studies.
- Interconnection customers submitting applications for interconnection during an annual Cluster Request Window.
- PacifiCorp holds a 30-day Customer Engagement Window following the Cluster Request Window.
- PacifiCorp posts a draft plan for the Cluster Study and holds a scoping meeting to assist in the estimation of the potential scope of network upgrade costs given the number and size of other interconnection projects in the Cluster.
- Generator-specific Facilities Studies are performed after the Cluster Studies.

Regarding its SGIP, PacifiCorp has undertaken two Cluster Studies since the Commission's approval (i.e., the Transition Cluster Study and the first Cluster Study). 17 requests were processed in the two Cluster Studies.¹ 10 out of 17 (59%) are through the study process and proceeding to construction. That percentage is significantly higher than the large projects. And the two remaining projects in restudy are being restudied due to changes from the customer. Other than these two projects, the remainder of small generator interconnection requests have not been required to be restudied. Under the prior serial queue process, small generator interconnection requests frequently were delayed due to restudies of large generator interconnection requests. However, under the revised process, that has not been the case to date. In short, even though the cluster study process takes longer to complete, it is more efficient. Consequently, many of the efficiencies UM 2111 appear to seek could be gained by moving to a cluster study process like the SGIP approved for PacifiCorp.

- 2. Which of the following actions would be most effective at reducing interconnection costs in the next twelve months and why (select one)?**
 - a. Improving the analysis and other utility practices that identifies the upgrades and associated costs,**
 - b. Providing transparency about current utility analysis, data, assumptions, prices, and other practices, and**
 - c. Improving tools that allow interconnection customers the ability to contest cost estimates, and prevent them from changing?**

PacifiCorp Response: The primary drivers of interconnection costs are the size of the proposed generation facility and the point of interconnection chosen by the developer -- both of which drive the costs of facilities and system upgrades required to interconnect a generator while maintaining safe and reliable system operations. None of the three issues identified above has a meaningful impact on the size of the proposed generation facility or proposed point of interconnection as the three issues are primarily

¹ These numbers include requests in Oregon, Washington and California.

focused on understanding the utility interconnection process, as opposed to addressing actual cost drivers that could potentially reduce interconnection costs. PacifiCorp understands that these three issues are likely to be discussed in the context of this proceeding at some point, and is happy to engage in that discussion, but does not agree that any outcome of those discussions is likely to identify meaningful cost reduction opportunities.

For example, with respect to (a), PacifiCorp does not believe any factual foundation has been laid for an assumption that the utility's processes for identifying interconnection-driven upgrades and associated costs is flawed. Regarding the processes, OAR 860-082-025 already requires public utilities to evaluate interconnection requests pursuant to IEEE 1547 and 1547.1.² Additionally, OAR 860-082-025 requires interconnection customers to pay for interconnection facilities, system upgrades, or changes...that are necessary to bring small generator facility interconnection into compliance with the small generator interconnection rules or IEEE 1547 or 1547.1.³ IEEE 1547 is widely relied upon for criteria and requirements for the interconnection of distributed generation. Given these existing requirements (along with the recommendation in Group 1 to update the reference to IEEE 1547-2018), it is unclear how UM 2111 can meaningfully improve upon the IEEE 1547 standards. It is not the quality of the analyses, which are required to adhere to IEEE 1547, that are driving the costs of interconnection.

With respect to (b), it is unclear what additional information Staff believes utilities should provide to interconnection customers, whether such information is available, or how any such information would impact the key cost drivers, i.e., project size and physical interconnection requested by the customer. Moreover, OAR 860-082 already requires the public utility to hold scoping meetings, at which time information regarding analyses, data, and assumptions is exchanged.⁴ Additionally, PacifiCorp routinely holds meetings with customers after studies are completed to discuss the results and answer questions. PacifiCorp also responds to questions from customers at other points during the process. In short, no foundation has been laid to support that the process lacks transparency or that it is driving the costs of interconnection.

With respect to (c), a cost estimate is based on early assumptions and a subset of information, which is bound to change as actual information and studies become more granular. It is thus unclear whether Staff is suggesting that utilities should be required to spend more money and time developing a new type of "estimate" that is more robust than current estimates, which would increase the costs and extend the timeline for such estimates, and is unlikely in any event to be "final," or whether Staff is suggesting that utilities should be required to determine "final costs" for interconnection customers without knowing the actual costs of interconnection and pass on any additional

² OAR 860-082-0025(7)(d).

³ OAR 860-082-0025(1)(e)(C).

⁴ See e.g., OAR 860-082-0050(3)(a) and OAR 860-082-0060(5).

interconnection costs to retail customers. Additionally, customers have the ability to contest results of interconnection studies before the Commission pursuant to OAR 860-082-025. PacifiCorp already undertakes significant work to meet the required timelines for completion of interconnection studies. Responding to complaints and disputes also requires a significant amount of work.⁵ If a goal of UM 2111 is to increase the likelihood of customers disputing the results of analyses, then the Staff should be aware that the time and work required to respond to such disputes will detract from the public utilities' ability to adhere to study timelines.

Based on the above, PacifiCorp does not believe any of the issues above are a key driver of interconnection costs. The most helpful approach to addressing interconnection costs in the next 12 months would be for stakeholders to lean on the lessons learned in the context of Community Solar. For example, siting a project near a substation, instead of far from a substation, or near load, rather than far from load, can have a significant impact on interconnection costs. Spending time discussing this type of information may be the most helpful action for helping small generators develop projects.

- 3. What is the best way to address the overlap between Hosting Capacity Analysis (HCA) discussions occurring in Distribution System Planning (DSP) and Staff's proposal for Group 1, which is to modernize the screens and other thresholds used in the interconnection study process which are used to identify the need for further study and/or major upgrades and modernize the upgrades that the studies identify. For example, Staff's original proposal is for DSP forums to continue to work on mapping/data transparency under current utility practices as well as the planning use case if DSP parties choose to dedicate DSP resources to continuing that work. Once Group 1 issues are resolved, those policies should be incorporated into transparency/mapping efforts under DSP and parties can explore in UM 2111 whether to use the interconnection use case HCA and maps as part of the interconnection process.**

PacifiCorp Response: The use of Hosting Capacity Analysis (HCA) results in the interconnection technical screening process is dependent on both the accuracy of the data in the HCA analysis and the impact of the screen on the interconnection study results. The utility action items within phase 1 of the DSP docket is the primary venue for the discussion, i.e., of what requirements should be included within a HCA and the corresponding visual representation. The DSP docket is the venue where the associated costs and benefits of different levels of accuracy are being discussed. The utilities were directed to provide different estimates of the costs to meet different capabilities. Understanding the Commission's HCA requirements, the detail of the engineering included, and the frequency that the analysis is refreshed will determine the ability to replace interconnection screens with HCA based screens. Therefore, the DSP docket

⁵ For example, in Docket UM 2118, PacifiCorp responded to 13 sets of discovery from the complainant, consisting of 307 questions (including sub-questions). The Commission ultimately agreed with all of PacifiCorp's litigated positions, but the complaint took over a year to complete.

appears to be the location where the utilities will receive direction from the Commission on how detailed the HCA should be.

The other key consideration on the use of HCA in the screening process is the impact of the screen on the interconnection study results. In most interconnection tier frameworks screens are used as guideposts for engineering teams to triage the need for additional studies. Basically, they are “if- then” scenarios where if a project passes a set of screens, then most likely there is no need for additional study. However, if the engineer knows of unique characteristic of a project or a circuit, the engineer can require additional studies. This is different than in Oregon, where screens become “Approval Criteria” as in the Division 82, Small Generator Interconnection rules, or state a “utility must approve” the interconnection when screens are passed as with the Division 39 Net Metering rules. The higher degree of integration in Oregon calls for different levels of certainty in the screens. Especially in situations where the cost allocation of system upgrades between ratepayers and a specific customer can be determined by receiving approval at a certain tier as with net metering.

Understanding the potential use of HCA in the interconnection process will be important in evaluating the costs and benefits of different paths forward in HCA. But PacifiCorp believes that the proper venue for getting direction on what level of sophistication in HCA is most properly provided through the DSP docket. Until direction is provided in the DSP docket, and the tools are sufficiently developed to provide actionable screens, they should not be integrated into the interconnection rules. To that end: (1) PacifiCorp agrees that any resolution regarding Group 1 issues, to the extent they potentially relate to the HCA, should be brought into the DSP docket for consideration and finalization, and (2) the cyclical process initially proposed by Staff seems most appropriate.

- 4. Do you support the Interconnection Trade Association suggestion that storage and advanced inverter issues should be deprioritized to accelerate discussion of Group 3 (or Group 4) issues? If so, please explain how the Group 3 (or Group 4) issues are better positioned to address root cause issues for broad generator types, will best enable the community and resiliency projects driven by state policy (including grants and incentives) and will best maximize decarbonization value through enabling smarter, flexible resources?**

PacifiCorp Response: No, PacifiCorp does not support deprioritizing Group 1 issues. Group 1 issues like the use of advanced inverters, storage and islanding configurations, and incorporating IEEE 1547-2018 into interconnection review and operation are not incorporated in any of the interconnection rules in Oregon. To achieve the goals of increased resiliency and leveraging customer owned equipment to provide locational benefits to the distribution grid, these topics must be addressed. Additionally, the Group 1 issues are more likely to impact utility customers as customers seek to increase their personal resiliency or meet their carbon reduction goals.

While Group 3 and 4 Issues are important, they are primarily focused on refinements of existing procedures that impact the installation of qualifying facilities. Also, while community focused projects may interconnect as qualifying facilities because of a lack of onsite load to offset, the primary beneficiary of these modifications will be independent power producers. Independent power producers are familiar with existing procedures and cost structures and have the experience to advocate for themselves while waiting for potential changes. Arguably there may be some room for modifications that improve the existing rules, but there is not a complete absence of guidance as with the Group 1 issues. Early prioritization in UM 2111 should be on developing guidance for utility customers on the requirements for the use of advanced equipment to meet their goals. Thereafter, UM 2111 can turn to issues such as refining appeals processes and cost estimating requirements to provide independent power producers more clarity on the interconnection of qualifying facilities.

5. How should the working group be structured and what can the working group do to facilitate resolution of contested issues?

PacifiCorp Response: First, on the issue of structuring working groups, PacifiCorp believes the structure depends on the issue at hand. This docket involves a wide array of interconnection issues and generator types, which invoke different statutory and policy goals, as well as a range of complaints about the interconnection process, some of which invoke legal issues, some of which involve technical issues, and still others involve prioritization of competing policy goals. Thus, it is exceedingly difficult to answer the question of how to structure a working group without knowing: (1) which specific issues would be addressed in a specific workgroup; (2) what issues or problems the specific workgroup is intended to address; and (3) what the goal(s) of the workgroup are. Each of these three points should be defined carefully and concretely for each issue before workgroups can be meaningfully structured and before durable solutions can be developed to respond to the issue raised. To date, the scoping discussions in this docket have been understandably high-level to inform high-level process decisions, but the answer to this question seems challenging without more specificity. In any event, PacifiCorp believes it is important to have Staff present to facilitate resolution of contested issues in each of Staff's proposed groupings.

With respect to facilitating resolution of any workgroup issues, in addition to identifying goals of interconnection customers, facilitation will more likely be successful if Staff also identifies a parallel set of state policy / utility customer goals it is simultaneously trying to achieve. As an example, and for illustration purposes, if the Commission were to modify its rules to eliminate the need for engineering safety requirements, interconnection could be cheaper, but would be significantly problematic from a public policy perspective by impacting the quality of service enjoyed by existing customers. In this regard, requirements for reliability could be viewed as a "roadblock to interconnection," or they could be more accurately described as a foundational requirement to achieve state public policy goals.

Consequently, it is important, before launching into a working group discussion, to identify not only the interconnection customers' preferred outcomes with respect to interconnection cost and process, but also Staff's preferred outcome with respect to the impact of interconnection on the distribution grid. As a public policy matter, it is important to ensure the grid remains safe and reliable and that requirements associated with safe, reliable operations be imposed, even if such requirements of necessity impose costs.

In addition, efforts to modernize the grid and operate the system flexibly may, as a technical matter, impose additional interconnection requirements necessary to achieve state policy goals, such as resiliency goals.⁶ To the extent these requirements impose costs, they could be perceived as "roadblocks" or "barriers," but should instead be viewed as necessary elements for reaching Oregon's public policy goals. The costs of these requirements must be borne by someone: by the interconnection customer that seeks to interconnect its project, or by retail customers.

In short, facilitation of working group discussions would be improved by defining not only the goals of interconnection customers, but with additional specificity from Staff regarding the barriers it is seeking to eliminate with respect to Staff's priority resources, and Staff's goals with respect to what Oregon's distribution grid should look like at the end of the day. To the extent Staff or stakeholders believe such goals are obvious, PacifiCorp disagrees and believes it would be helpful if such goals were explicitly stated.

6. Do you support IREC's suggestion to switch from organizing our interconnection rules based on size and policy (e.g., Net Metering, SGIP, LGIP) to point of interconnection (distribution or transmission).

PacifiCorp Response: PacifiCorp does not support this proposal, as it would significantly disrupt current interconnection policies and expectations and create additional tranches of work that would need to be completed (and additional disagreements to resolve) to develop a set of updated interconnection rules.

Importantly, PacifiCorp recently completed a significant set of reforms to its interconnection rules at the Federal Energy Regulatory Commission (FERC). In connection with that effort, PacifiCorp sought and received approval at the Commission to modify its Oregon SGIP and Oregon LGIP to ensure that PacifiCorp's Oregon interconnection procedures align with PacifiCorp's FERC interconnection obligations, which no longer mirror standard federal interconnection procedures.⁷

⁶ See Staff's Initial Scoping Memorandum at 2 (Feb. 11, 2022).

⁷ See, e.g., *In re PacifiCorp, dba Pacific Power, Application for an Order Approving Queue Reform Proposal*, Docket No. UM 2108, Order 20-268 (Aug. 19, 2020).

PacifiCorp was able to ensure meaningful jurisdictional alignment by aligning key elements of its state jurisdictional SGIP and LGIP with its federal SGIP and LGIP. Moving away from the SGIP/LGIP construct would disturb this symmetry, which could have a number of negative consequences. For example, it could lead to jurisdictional conflicts, undermine the ability of Oregon interconnection customers to benefit from interconnection reforms designed to create a more efficient study and interconnection process, and undermine Commission precedent supporting alignment state and federal interconnection processes. The current SGIP / LGIP designation allows for jurisdictional issues associated with the PacifiCorp-specific federal interconnection obligations (Which no longer mirror standard federal interconnection policies) to be addressed in a straightforward and meaningful way.

7. Which topics under the umbrella of Group 1 or Group 4 could be addressed without a Staff-led process? Is there another way to accelerate Group 3 or Group 4 issues without diverting resources from Group 1?

Response: PacifiCorp believes it will be unlikely to reach resolution of the issues in Group 4 without a Staff-led process. The previous workshop revealed some fundamental disagreements among stakeholders about core purposes for revising the interconnection process. Some stakeholders continue to identify the existence of utility monopoly or an asymmetry of information between interconnection customers and the utility's transmission function as the biggest barrier to interconnection. By contrast, utilities consistently identify the biggest barrier to interconnection for all interconnection customers—whether that customer is a utility or a third party—as the fact that interconnecting a new generator creates costs associated with ensuring the safety and reliability of the grid and the utility's ability to operate its system consistent with its legal obligations. Similarly, costs associated with interconnection must be paid by either the interconnection customer seeking to interconnect its proposed generation, or the utility's retail customers, who may receive no benefit from either the upgrades or the interconnected generation. These policy issues necessitate Staff involvement if a resolution is to be reached. In particular, PacifiCorp believes it is critical to have Staff present to serve as an intermediary to ensure that Oregon's public policy goals associated with safe, reliable, modern grid operations and realistic expectations of the interconnection process are appropriately prioritized in discussions.

That said, it may be possible to begin with a workshop to address Group 1 issues facilitated by Staff to determine whether there may be some limited issues where stakeholders agree that some improvement is possible and there is some potential for agreed-upon solutions or common ground. If so, then it may be possible to have a utility host a subsequent workgroup discussion on those specific issues, while letting Staff facilitate the remainder of the issues in the grouping. If this process proves to be workable, it may provide a model for other groupings, as well.

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PacifiCorp appreciates the opportunity to respond to Staff's Additional Questions and looks forward to continued participation in this proceeding.

Sincerely,

A handwritten signature in blue ink that reads "Shelley McCoy". The signature is written in a cursive style.

Shelley McCoy
Director, Regulation