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**Solar Parties Comments in response to:
PUC Staff Draft Proposal for Community Solar Interconnection
7-24-2019**

The following comments are submitted by the Oregon Solar Energy Industries Association (OSEIA) and the Coalition for Community Solar Access (CCSA), hereby referred to as the “Solar Parties”. We appreciate the effort by Staff in addressing interconnection issues as they relate to community solar and in creating this opportunity to provide feedback.

The Solar Parties applaud Staff’s analysis and recognition of the interconnection problems in Pacific Power (PAC) and Portland Gas Electric (PGE) territories, and the urgency associated with addressing these issues to enable a successful community solar program. Staff’s investigation has revealed important process gaps that have been thwarting – if not completely preventing - solar development in Oregon. We support Staff’s proposal for mitigating cost challenges by testing new policies through a pilot program. In these comments, we attempt to help further the discussion and improve on the foundational aspects of Staff’s proposed solutions by offering recommendations and providing additional context and experience from both the national and local solar industry.

Slight expansion of the “pilot”

The Solar Parties strongly agree with the notion that an “emergency rulemaking” is needed and that the use of a “pilot” provides the safest and fastest channel for making immediate and impactful changes to the interconnection process. The community solar program is a logical testing ground for this pilot as it is self-contained by a capacity cap while also in need of near-term support to foster a successful program launch. That said, the Solar Parties do have some concerns with limiting the pilot to only the community solar program due to the following issues: fairness; administrative practicality; and cost reduction. As a result, we recommend, with some caveats, that the pilot program be expanded to include all qualifying facilities (QFs) regardless of whether they do or do not participate in the community solar program. To maintain the spirit of being a “pilot”, we recommend that *all* QFs currently in the PAC or PGE interconnection queues (up to a specified date, such as PUC approval of the proposal), be eligible to partake in the pilot. At the same time, any community solar project, whether in the queue now or in the future, will always be eligible for the pilot.

In addition to maintaining the need for a “limit” on the amount of project capacity that can participate in the pilot, there are several other benefits produced from this approach. First, it’s fair to those developers that have already made investments in the market. Second, it reduces the administrative complexity involved in parsing out who is and isn’t eligible to participate in the pilot. Third, it has the

potential of supporting more holistic upgrades that address the actual needs at different locations. Finally, it could help further reduce the cost impact on individual developers by spreading the burden to more projects.

Notably, policy safeguards should be in place to protect the retroactive participation in the pilot by projects already in the interconnection queue. For example, it would not be fair or financeable to increase the cost on any project that was already moving forward based on a previously quoted lower upgrade cost.

Use pre-emptive rather than post-upgrade cost sharing for distribution system upgrades

The Solar Parties support Staff's interest to incorporate cost sharing to reduce the distribution upgrade costs on individual solar developers. It is a practical solution that's being explored and/or implemented in other states, such as California, Hawaii, Massachusetts, New York, and others.¹ Staff's proposal is similar to a policy in place in New York², whereby a developer would take on 100% of a distribution upgrade cost, but could be reimbursed by subsequent developers that would also be benefiting from that upgrade. While this policy is good in principle and a step in the right direction, it has not worked well in practice, and in fact New York is now in the process of improving on that initial framework. Here are some of the drawbacks that have been identified:

- Does not address the issue that the project that is triggering upgrades must provide the upfront capital, which can delay or prevent viable projects from moving forward.
- It creates risk/uncertainty and a moving target on costs which hinders investment and financing.
- Prevents smaller projects from being "first in line", due to the upfront cost and potential risk.
- It's inefficient for utilities, requiring resources for upgrades independent of other system work.

In recognition of the challenges and inefficiencies associated with the post-upgrade reimbursement approach, New York (Department of Public Service) is considering a "pre-emptive" upgrade program which involves more proactive system upgrades. The consideration of changing to a pre-emptive approach is, in part, due to the experience of demonstration projects that National Grid has been running in New York.³ National Grid's proposal, approved in 2017, was to upgrade substation equipment in two areas where a number of DG projects had been proposed. The upgrade would make the system ready for current, as well as future, DG interconnections. The initial costs for the common system upgrades would be funded by National Grid, and those costs would be recovered via a one-time pro-rated fee to each applicant above 50 kW. The fee would be based on the estimated system upgrade cost divided by a factor (80%) that represents the substation transformer bank capacity. The 80% factor provides reasonable assurance the full system upgrade would be recovered. National Grid would proceed with the upgrades once all DG applicants agreed to the cost allocation methodology. The program was considered a success, and a year later National Grid was seeking approval to expand on the initial plan.⁴

¹ <https://www.nrel.gov/dgic/interconnection-insights-2018-08-31.html>

² Case 16-E-0560, 2017

³ Case 14-M-0101 (Feb. 14, 2017)

⁴ Case 14-M-0101 (Oct. 19, 2018)

This approach places the initial burden on the utility who can better handle the initial capital cost, while spreading the costs (based on project size) across projects and removing first-mover barriers. Further, an analysis by Borrego Solar and the National Renewable Energy Laboratory found that pre-emptive upgrades result in lower upgrade cost for projects compared to a post-upgrade cost reimbursement model.⁵

The pre-emptive model could be tweaked in different ways to address key upgrade costs and the minimum thresholds for pursuing the upgrades and other milestone requirements. It could also be used as a strategic tool by the utility to identify (or incentivize) DG “zones” and efficiently perform universal upgrades across the service territory.

Ensuring distribution system upgrades (and costs) are justified

The Solar Parties are concerned that some distribution cost upgrades being required by utilities are unnecessary and/or overpriced. For example, industry members state that PAC has required microwave telemetry at a price of \$1.4 million for a 3 MW project, while PGE has required expensive fiber to be used for all protective relays when radio and microwaves work just as well. As it stands, utilities are not incented to drive down the cost of these upgrades.

Additional transparency and oversight in this area would help ensure utilities are using sound engineering practices and being fair and cost-effective in determining necessary upgrades. As for concerns raised by Staff regarding the ability to verify study results and cost estimates from utilities, the Solar Parties believe that one of the most efficient solutions to this issue is for utilities to fully comply with the laws and rules in ORS 672 and OAR 820 for all engineering activities that are necessary to administer the interconnection process. The Solar Parties views on this topic are consistent with those recently expressed by The Professional Engineers of Oregon in UM 2000. Additionally, adherence to the rules, or lack thereof, can be used as a straightforward litmus test to determine whether an interconnection customer should be allowed to hire a third party to perform the studies or the upgrades. In summary, requiring utilities to follow the standards of conduct outlined in Oregon’s engineering rules can be used as an efficient enforcement mechanism to ensure the interconnection

Clarification regarding transmission system upgrade cost recovery

The Solar Parties support Staff’s proposal to treat projects that trigger transmission system upgrades as Energy Resources (ER) as opposed to Network Resources(NR), which is more consistent with the Federal Energy Regulatory Commission’s (FERC) Small Generator Interconnection Procedures.⁶ That said, due to limited experience by some industry members the Solar Parties ask for clarification regarding what, if any, implications may be triggered as a result of being an ER. For example, are there wheeling costs? Is there additional contract work? Is there any risk or liability? In summary, the Solar Parties are convinced that being an NR is not economically viable if there are transmission upgrade requirements, however we seek some clarification on expectations of an ER for each service territory under various scenarios.

⁵ <https://www.nrel.gov/solar/assets/pdfs/dg-workshop-banton.pdf>

⁶ Staff interconnection proposal, pg. 9. <https://edocs.puc.state.or.us/efdocs/HAH/um1930hah13520.pdf>

Other important considerations

Timing

An aspect of the interconnection processes outlined in the Staff report which is not fully addressed but carries, in some cases, equal importance to cost is timing. Members of the solar industry have experienced agonizing and unjustified delays in moving projects through interconnection processes in PAC and PGE territories. This has implications on costs, permitting, and other contracts engaged by the project owner. The Solar Parties recommend that timing be incorporated into Staff's analysis and efforts to drive down costs and improve efficiencies associated with interconnection.

In a similar vein, the Solar Parties are concerned with how long it could take to get projects interconnected and we recommend additional deadlines be proposed by Staff regarding the completion of processing of interconnection applications to better align with the goal of launching the program by the end of 2019.

PAC capacity

The Solar Parties recognize there are unique challenges with PAC territory due to an oversupply potential in the interconnection queue, per PAC. Though not included in the proposal by Staff, the Solar Parties thought it worth noting that we do not support "leap frogging" in the interconnection queue for a host of reasons, however we are interested in working with PAC, Staff, and other stakeholders in developing other solutions, such as enacting milestone requirements that keep viable projects moving and "squatters" pushed out of the queue.

QF designation

The Solar Parties call out the need for clarification regarding the status of a project as a QF and associated ability to be compensated for unsubscribed generation as an ER. Given's Staff's analysis that community solar projects must be QFs, we assume Staff's proposal is for community solar projects that are ERs to be eligible to still be a QF, but this could be clarified/confirmed. Relatedly, the legal memo summarizing Staff's position that community solar projects be QFs specifically excluded projects that are owned by an electric company. This could potentially create an unfair advantage for utilities participating as Project Managers in the program.

The Solar Parties appreciate this opportunity to provide input on the interconnection challenges in Oregon and detriment it creates for the community solar program and we look forward to further discussions around this topic.

Respectfully submitted,

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