



Oregon

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Summary of December 7 Workshop



At the fourth workshop the Screens, Study Methods, and Modern Configurations workstream, discussion focused mainly on the process and ongoing discussion of Level 2 screens. The following are highlights of the discussion as recorded by Staff, with questions for stakeholders italicized. If you believe anything is missing or in error please reach out to Ted Drennan. Also, for those viewing the recording [here](#), please note the first part of the workshop was inadvertently not recorded.

Process Update

The meeting began with (and ended with) process discussion. The initial discussion was similar to that in the November 17 meeting in the IEEE workstream. Staff would present a memo at the Public Meeting which would cover the approach to the rulemaking and which Oregon Administrative Rules (OARs) would be subject to the rulemaking. It would also cover areas of consensus, and areas of disagreement.

There are several outstanding questions on the path forward that Staff is looking for stakeholders' opinion regarding the rulemaking. One question involves the potential for combining workstreams going forward for the rulemaking, or if they need to be on separate paths. Parties generally supported the combined approach, assuming it did not get bogged down in technical details, especially as pertains to the IEEE workstream..

There was also discussion about the potential to combine the [NEM](#) and [SGIP](#) rules in the OARs. There were several possible approaches discussed:

1. Work on the issues in the two divisions separately with an eye to combine them in the future.
2. Combine the divisions now, and work forward on the issue in a combined set of rules.
3. Keep the divisions separate, but include the interconnection requirements in the SGIP division and have the NEM division reference them.

An important point raised in the discussion was to ensure the rules continue to recognize potential differences in the treatment of NEM and SGIP whatever the approach. Issues to be addressed in the later phases may have different implications for the generator type that is requesting interconnection. The rules need to keep that forefront.

One suggestion in the discussion was to have parties look at the rules and determine what the challenges or major issues are in combining the rules. Staff believes this is a good approach and requests parties examine the rules and be prepared to discuss the appropriate approach.

Another part of the early discussion focused on the potential to repurpose the workshops in the IEEE workstream to focus on remaining issues in the Screens workstream. Parties believed that was a reasonable approach. As such Staff will look to wrap a few items from the IEEE workstream at the beginning of the December 20 workshop, then move forward with discussion related to the Screens workstream. Staff requested that stakeholders be sure they have engineers available for the repurposed workshops to facilitate discussion going forward.

Process discussion continued at the end of the workshop. There was a question on how the process would move forward, what Staff was planning. Staff intends to bring forth a straw proposal for stakeholder feedback. This will likely be put forth for the December 20 workshop, with the potential for discussion then, or at the following workshop, which could give stakeholders time to provide additional feedback.

Miscellaneous

Staff also updated stakeholders on the Portland General Electric (PGE) waiver request in docket UM 1631. PGE is requesting a waiver of current requirements so they can connect NEM generators that fail Level 1 screens if it is safe to do so. The application can be found [here](#). PGE has discussed this approach at prior meetings; Staff believes the request is inline with the discussion in the UM 2111 docket. As such, Staff intends this to be on the December 27 Public Meeting, on the Consent Agenda.

There was also discussion around questions for the utilities related to two-second reclosure requirements. Staff wants a better understanding of the implications related to less than two second reclosing on circuits, including whether customers are currently able to meet this standard, how many, and what the characteristics of the generators are? These questions were sent to the utilities on December 1, not giving a lot of time for research prior to this workshop. PGE believed they had around three projects, two that were non-exporting, one with limited export. Idaho Power does not have any export limited generators in Oregon. PacifiCorp was going to look into their system; its not something they track. Utilities were going to provide additional information in the future, either via comments or at the next workshop. PacifiCorp is planning on providing general policies about how this issue is handled on their East System as well.

One other question involved the definition of 'microgrid' and it could include a single islandable customer. It seemed the group coalesced generally around a definition of solar + storage and one or more customers behind a single meter.

Level 2 Screens

The discussion continued comparing the screens in [OAR 860-082-0045](#), small generator interconnection procedures (SGIP), [OAR 860-039-0030](#), net energy metering (NEM) and the [2019 IREC Model Rules](#) as modified by the [2022 Energy Storage Interconnection Toolkit](#). Materials related to the Screens were originally sent to the working group on September 7, and included in the appendix materials for the [September 14](#) and [October 6](#) presentations. Additionally, IREC circulated a red-lined discussion draft to the service list on November 23, 2022 that was used as well for the discussion.

Fast Track Eligibility

The initial topic discussed in the Level 2 Screens was related to nameplate size limits for fast-track eligibility. Part of the discussion revolved around the differences between rotating and inverter-based machines. It appears the utilities have different approaches here on size limits. Idaho Power offers fast track eligibility for rotating machines up to 2 MW, while PGE only allows fast-track for inverter-based machines. The 2 MW limit is inline with FERC SGIP rules, although parties differed on if there is actual data supporting a 2 MW limit. Staff is hoping written comments in response to those posed in the October 6 Meeting summary will provide clarity on what the utilities do currently, and what will work going forward.

Field-Tested Equipment

As part of fast-track eligibility is the requirement for the “use interconnection equipment that is either lab-tested equipment or field-tested equipment.” The current rules require a witness test within the past three years to qualify. There was discussion on if this three-year requirement was necessary. Consensus seemed to concur that this was not need for fast-track eligibility.

Staff would like parties believing a witness test within three years is required for the definition of Field-tested Equipment to provide supporting rationale.

Network Screen

Network screens were discussed as well. Here there are differences between Oregon requirements for SGIP and NEM projects. SGIP sets the limit for the nameplate capacity as the lesser of five percent of a spot network’s maximum load, or 50kw. NEM requirements are five percent of maximum load for rotating machines, and 10 percent of 500 kw for inverter-based machines. There was discussion on the ability to standardize requirements between the two sets of rules.

Staff would like to know what parties think of standardization between NEM and SGIP, and what would be the best approach to the requirements.

Fault Current Screen

One potential change to the fault current screen is to allow use of manufacturer data that reports the fault current instead of relying on the generator's nameplate capacity. There was not much discussion of this subject.

Staff would like to know if parties are comfortable with using manufacturer-supplied data for the fault current when available.

Short-Circuit Interrupting Capability Screen

There was no discussion of this topic, no changes were suggested.

Transient Stability Screen

Current requirements for transient stability screen limits interconnection in areas with known or posted transient stability limitations. The current guidelines state generation must not exceed 10 MW in these areas. Some stakeholders believe this 10 MW is too high, and the requirements may need to be rewritten.

If parties want to change the 10 MW limit, Staff would like to better understand the concerns with the current limit, and proposals for future requirements.

Line Configuration Screen

This screen includes a review of the type of electrical service provided to the project, including line configuration and the transformer connection to limit the potential for creating over-voltages. The discussion focused mostly on criteria for the category "three-phase, four-wire or mixed three-wire and four-wire." Here the requirements for inverter-based generation examines the aggregate nameplate rating, including that of the proposed project, is:

- ≤ 100 percent feeder or line section minimum load, or
- if minimum load data is not available: ≤ 30 percent feeder or line section peak load.

One issue raised included the use of 100 percent of the minimum load, with some parties saying this was too high. The use of 30 percent of peak load could be problematic in certain situations as well, such as circuits with irrigation load.

Staff would like to know what utilities use currently for this, including any differences for specific situations (such as irrigation circuits). Also, if the IREC proposed requirements do not work, please provide proposals that will work, along with the rationale.

Single-Phase Shared Secondary Screen

Current requirements limit interconnection on a shared secondary line to 20 kw. IREC has proposed allowing 20 kw or 65 percent of the transformer nameplate power rating. It appears there are a variety of approaches currently, including limits that are lower for 15 kva transformers. The 65 percent level would allow for additional connections where there are larger transformers.

Staff would like a better understanding of current utility practices, and proposals for screens that take into account the transformer sizes appropriately. If there are concerns with IREC's proposed 65 percent threshold, Staff would like to understand the specifics of the concerns and whether there is a different threshold that will be safe and reliable for screening.

Service Imbalance Screen

There were no changes proposed for this screen.

Additional – No-Name Screen

There is a requirement in 860-082-0050(2)(j):

The aggregated nameplate capacity, in combination with exiting transmission loads, must not cause the transmission system circuit directly connected to the distribution circuit where the small generator facility interconnection is proposed to exceed its design capacity.

There was a question on the rationale underlying this requirement. Parties were unsure why this is required, and even what motivated it in the beginning. It is something that can be discussed at a future meeting, following some investigation.

Staff is curious if this is needed in the future, and if so what is the reasoning.

Inadvertent Export Screen

This is a new screen to address power that is unintentionally delivered to the grid. This screen will protect against the introduction of voltage events. There is more detail in IREC's [BATRIES](#) documents, see chapter 5 and Appendix C for even more details. The topic was mostly introductory, with the utilities to provide feedback later.

Timelines – Scoping Meeting

Under timelines the discussion started with the need for scoping meetings. These scoping meetings can help applicants, providing additional information including potential impediments to interconnecting where the customer would prefer. It appears that this is limited to larger, albeit still defined as small, generators. This does not impact NEM, and generally only Level 4 SGIP interconnections.

Staff would like to know how many of the interconnection applicants have scoping meetings, and if there is any reason to require such meetings for some or all generator types.

Approval despite screen failure

Currently utilities have the freedom under certain situations to approve interconnections even if the applicant fails the screens. There did not seem to be any concern from stakeholders with continuing the approach.

Process after screen failure

There were three options for parties who fail the screens and are denied interconnection. The three options proposed are:

- Request an applicant options meeting; or
- Undergo supplemental review in accordance with Supplemental Review;
- Continue evaluating the application under Tier 4.

There were a few concerns raised with the options proposed. First, the utilities receive hundreds of Tier 1 applications, holding meetings with customers who fail screens could be difficult, especially given strict time limits. There was also concern about skipping the Tier 3 screen.

Staff would like to understand the concerns raised further, and any potential changes to address such concerns.

Next Steps

The following table is a revised version of the table provided in both workstreams. As the workstreams have been combined the upcoming workshops will be renumbered to reflect this and avoid potential confusion. This includes the currently scheduled workshops for Phase 1 of the UM 2111 investigation. Staff is preparing a strawman for the approach to completing this phase, the table reflects current thinking, but is subject to change.

Combined Workstreams			
Description	Event Date	Workshop Topic	Pre-meeting deliverable
Workshop 9	December 20, 2022	IEEE questions raised in the November 17 Meeting Summary Discussion of questions in the October 6 workshop summary related to Level 1 screens Further discussion of Level 2 screens. The potential for combining rules.	Responses to questions circulated to Service List if timely.

Workshop 10	January 17, 2023	TBD – further screens discussion, assuming one workshop set aside for discussing Penetration Screens. Current approach envisions four workshops to finalize IEEE issues and screening.
Workshop 11	January 31, 2023	
Workshop 12	February 15, 2023	
Workshop 13	February 28, 2023	TBD – Staff intends to open a rulemaking in the first/second quarter of 2023. Final approach is not yet determined, but these workshops could be held for that purpose.
Workshop 14	March 15, 2023	
Workshop 15	March 28, 2023	

Staff appreciates stakeholders taking the time and effort to participate in these discussions. To make these productive as possible, *as mentioned earlier, Staff would like to know, as early as practicable, if utility technical experts are unavailable to attend future workshops.* If necessary we will look to reschedule such meetings.

Please be sure to circulate all discussion, redlines, comments, etc. to the Service List as listed on the [OPUC UM 2111 webpage](#).

For any questions or concerns please contact:

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To receive meeting notices and agendas for this docket, send an email to puc.hearings@puc.oregon.gov, and ask to be added to the service list for Docket No. UM 2111. You will then receive emails with workshop details, when new documents have been added to the docket, or there is a change to the schedule.

Appendix – Questions from October 6 Workshop

Below are questions Staff posed in the [October 6 workshop summary](#) for reference.

Application

Staff would like to know if parties object to including the option for interconnection customers to include a signed interconnection agreement when submitting a Level 1 application under Oregon's SGIP process.

Eligibility Size

Staff would like to know if there are any parties who object to the use of export capacity of 25 kw and nameplate rating of 50 kw as the eligibility threshold for Level 1 applications.

Fault Current Screen

Staff would like to verify this is the correct understanding; stakeholders should confirm that they agree with the standardization approach. Stakeholders who believe the fault current screen should remain for NEM resources should provide the reasoning behind their preferred approach.

Network Screen

Staff would like to know the extent of network systems for the utilities. Stakeholder should provide their position, and any concerns with allowing use of minimum load data, when available, as included in IREC's proposal.

Single-Phase Shared Secondary Screen

Staff would like to know if Stakeholders concur on the use of the metric as proposed by IREC. Is 65% the right value, or is there another value that would be more appropriate? Finally, what is the impact of grandfathering existing resources, i.e. use their nameplate capacity, instead of export capacity. Can the utilities provide an estimate of the number of resources that would be grandfathered, and the impact that could make? Is there an estimate of the amount of time it would take to develop appropriate export capacity values for these resources?

Staff would like to know the difficulty of determining the export capacity for existing resources. Stakeholders who would like something other than use of the default settings should offer a proposal for settings that they would prefer, along with an explanation.

Service Imbalance Screen

If parties believe the current approach to this screen needs to be changed they should offer a proposal, along with an explanation of why that is better than the current approach.

Approval Timeline

Staff would like to know what parties believe is an appropriate timeline for approval. Would seven-days be too short of a timeline? If so is ten days appropriate for both SGIP and NEM applications? Please provide support for your position.

Deemed Approval

Staff would like to hear from any parties who object to including deemed approval for SGIP.

Inspection Timeline

Staff would like stakeholders to provide a suggested timeline for inspections, along with the rationale for the proposal.

Standardized Screen Results

Staff would like more information on what is provided to applicants who fail the screening process. What information would be helpful for developers, are the current reports sufficient? Do stakeholders see value in a standardized form for all utilities to use; are there issues with one form for all utilities?

Level 2 Screens and Eligibility

Staff would like stakeholders to respond to the proposal further, is the use of export capacity the correct metric here? Do the export capacity values in the 'regardless of location' column work and is it appropriate to use the values in the distance column? Please provide the underlying rationale, as well as specific examples.