

PGE - Independent System Impact Study Process

1. **Applicability.**

The process established in this document will apply to any small generator interconnection application that is received by PGE or that is pending for approval by PGE on or after April 15, 2026.

2. **OAR 860-082-0060(7)(h) and(m).**

Under Commission small generator interconnection rule OAR 860-082-0060(7)(h), an interconnection applicant (Applicant) may provide PGE with an Applicant-performed independent system impact study (independent SIS). Under OAR 860-082-0060(7)(h), if an Applicant provides PGE with an independent SIS, then PGE must evaluate the independent SIS and must address any alternative findings from the independent SIS.

3. **Notice of intent to conduct an Applicant-performed independent SIS.**

In order to provide PGE with an independent SIS under OAR 860-082-0060(7)(h) and (m), an Applicant first must provide PGE with a timely written notice of intent to conduct an independent SIS (Notice of Intent).

- a. Where to send the Notice of Intent. Notice of Intent must be provided by the Applicant to PGE by email to Small.PowerProduction@pgn.com. PGE may from time to time update this process by posting a modified version of this document on its website.
- b. When to send the Notice of Intent. An Applicant must provide PGE with written Notice of Intent within 15 business days of the receipt of the executable system impact study agreement as required by OAR 860-082-0060(7). Notice of Intent shall be effective when the email is received by PGE. In the event that PGE does not receive an executed copy of the system impact study agreement or Notice of Intent to conduct an Independent SIS within 15 business days the application will be deemed withdrawn.
- c. Waiver of opportunity to conduct an Applicant-performed independent SIS. If an Applicant does not provide written Notice of Intent to PGE within the time period established by Section 3(B) above, then the Applicant will be deemed to have waived the opportunity to conduct an independent SIS of the type provided for in OAR 860-082-0060(7)(h). The only exception to such waiver is detailed in Section 4(e) below.

4. **Independent SIS process and timelines.**

If an Applicant provides PGE with a timely, written Notice of Intent, the following process and timelines will apply:



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- a. Non-disclosure agreement. Within five business days of receipt of an Applicant's Notice of Intent, PGE will provide the Applicant with an executable non-disclosure agreement (NDA) addressing confidential treatment of system information to be provided to the Applicant by PGE to facilitate the Applicant-performed independent SIS.
- b. System Information. Within 21 calendar days following the receipt of the notice of intent, and contingent upon the receipt of the fully executed NDA, PGE will: counter-sign the NDA, provide the Applicant with a copy of the fully executed NDA and provide the Applicant with the system information detailed in Section 4(B)(i)-(v) (the Standard System Information).

Standard System Information is: The information PGE provides or would ordinarily be provided to PGE's own consultants to allow PGE's consultants to conduct PGE's primary system impact study (primary SIS).

- i. CYME data files containing PGE's distribution models for minimum load and peak load with all higher queued DER interconnections modeled (including the correct active/reactive power settings for each DER interconnection): the distribution feeder to which the Applicant proposes to interconnect; the substation serving that feeder; and any other distribution feeders directly interconnected to that substation. To perform the power flow and fault studies required by the Commission's small generator interconnection rules, PGE uses CYME software. PGE will not provide the Applicant with a license to use the CYME software or with a copy of the CYME software. The Applicant or the Applicant's Consultants will need to secure a license for, and a copy of, the CYME software (or any other software) needed to use the CYME files provided by PGE. When modeling the Applicant's proposed DER, the Applicant's Consultants should use the PGE default Volt-VAR and Volt-Watt settings from the PGE Distribution Interconnection Handbook, if a combination of Volt-Var and Volt-Watt does not provide adequate mitigation then other reactive/active power settings can be proposed.
- ii. A substation operating one-line diagram and the substation relay models.
- iii. Equipment Ratings of Major Main-Line Equipment (breakers, conductor, regulators, capacitor banks, reclosers, switches, and fuses).



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- iv. Template SIS reports (MS Word) for generation-only or battery studies and a One-Line as a PDF.
 - v. If available, the information provided by PGE will be for the 12-month period immediately preceding the date on which PGE received the Notice of Intent from the Applicant. PGE reserves the right to provide system information for a longer period of time if PGE determines that the immediately preceding 12-month period is anomalous or unrepresentative of system conditions.
 - vi. PGE will not provide the Applicant with a copy of IEEE 1547, any other IEEE product, or any other copyrighted product or material. The Applicant or Applicant's Consultants will need to obtain their copy of IEEE 1547, any other IEEE product, or any other copyrighted product or material that Applicant intends to use as part of its Applicant-performed independent SIS.
- c. Site Access. To facilitate the Applicant-prepared independent SIS, PGE will provide the Applicant and Applicant's Consultants (who are subject to confidentiality obligations) with limited access to PGE's facilities as reasonably necessary to perform the independent SIS. PGE notes that site access is frequently unnecessary to conduct a system impact study. If site access is reasonably necessary to perform an independent SIS, then the Applicant and any Applicant Consultant that will participate in the site visit must sign a PGE site visit release and agree to follow all PGE safety procedures before PGE will grant access to PGE facilities. PGE may require that any access to PGE facilities be conducted with a PGE escort. If site access is reasonably necessary, site access will be limited to a single visit unless additional visits are reasonable and necessary to conduct work or investigation that could not have been performed during the initial site visit.
- d. Deadline to provide PGE with an Applicant-performed independent SIS. Applicant must provide PGE with a copy of the Applicant-performed independent SIS within 45 business days of receipt of system data. If the Applicant fails to do so, the Applicant will be deemed to have waived its opportunity to conduct an Applicant-performed independent SIS. PGE and the



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Applicant may agree in writing to modify the deadline but neither PGE nor the Applicant is required to agree to a modified deadline.

- e. Limited exception to waiver of independent SIS. An Applicant may request to perform an independent SIS outside of the approved Notice window in Section 3(B) above after PGE completes its facilities study in the following limited circumstances: if (1) PGE is conducting a facilities study on Applicant's interconnection request and a higher queued project (on the same feeder as the Applicant's project) withdraws from the queue, (2) the facilities study results vary substantially and materially from the most recent system impact study provided to the Applicant. For purposes of this Section 4(H), a facilities study shall not be deemed to vary substantially or materially from the most recent system impact study provided to the Applicant merely because the cost estimates in the facilities study and the most recent system impact study differ. Under the limited circumstances described above, the Applicant may request to perform an independent SIS after the PGE facilities study is completed and PGE will evaluate and address the results of the independent SIS in a revised facilities study to be issued within 15 business days of PGE receiving the independent SIS *provided:* (i) the Applicant makes such request by written notice of intent to perform an independent SIS provided to PGE within 15 business days of the Applicant's receipt of the facilities study and (ii) the Applicant provides the independent SIS to PGE within 45 business days of its notice to intent to perform the independent SIS. This Section 4(H) establishes a limited exception to the waiver rule established by Section 3(C) above.

5. Content of Applicant-performed independent SIS.

The Applicant-performed independent SIS must provide the following.

- a. **Distribution Analysis.** The independent study must provide the following analyses for both the Base Case and DER connected Case:
 - i. Feeder Voltage Profile and Power Flow Analysis (**Minimum** and **Peak** Loading scenarios, limited to daytime hours 9am to 4pm when the DER being studied is limited to solar PV generation)
 - ii. Reverse Power Flow Analysis on reclosers and voltage regulating devices in system normal configuration (N-0)
 - iii. N-1 Contingency Analysis (Minimum Loading) – analyze impact of lost load due to fault tripping a single protective device (fuse or recloser), thus reducing the minimum load which may cause thermal overload or voltage violations



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- iv. Upstream Fault Current Profile
- v. Short-Circuit Withstand Analysis (for devices upstream of the proposed DER) - includes the largest available fault currents for Symmetrical (3-phase, LLG, LL, LG), Asymmetrical (3-Phase, LG), and Instantaneous Peak Fault Current
- vi. System Backfeed – Loading at the feeder breaker, substation transformer, and “substation” level (aggregation of substation transformers)
- b. Studier must record interconnected feeder voltage profiles and voltage values at Point of Interconnection (POI) and substation breaker, record back feed on substation/line regulators and/or substation transformers with LTCs, report violations, and make recommendations for distribution upgrades consistent with PGE standards (See PGE Distribution Interconnection Handbook).
- c. PDF of one-line diagram depicting the upstream pathway on the interconnected feeder from the POI to the feeder breaker and substation transformer. On the substation portion of the one-line diagram, only include interconnected feeder breaker and upstream transformer from the substation one-line diagram provided by PGE. Label high side voltage and exclude transmission line names. All other substation elements should be redacted (removed or blocked out with white box). Lines will indicate length in feet between devices and/or feeder branches and will be labeled as either overhead conductor or underground cable. Include kW and kVAR readings from CYME Minimum Load Case w/ upgrades and the new DER Interconnection generating. These kW and kVAR values should be provided at 1) feeder mainline branches (not taplines) 2) upstream devices (switches and reclosers) from the new DER to the feeder breaker, 3) any DER along this same path with queue number and export capacity in MW, as well as 4) the mainline/tapline just downstream of the POI.
- d. PDF of the final report and one-line diagram with Oregon PE Stamp will be uploaded to secure file location and PGE notified of completed study via email to DP.DERSTUDY@pgn.com, the assigned PGE Distribution Planning Engineer and Small.PowerProduction@pgn.com.

6. **Review of Independent SIS**

- a. PGE will have 30 business days from receipt of the Independent SIS to accept or reject in writing the results of the study.
- b. If a study is rejected, the public utility must identify all study modifications required, with supporting rationale.



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- c. If a study is rejected, the applicant has 45 business days to provide an updated study addressing all public utility-raised issues.
- d. A public utility's decision to approve or reject a third-party study must be based on safety, reliability and compliance with published standards.

7. Cost.

The Applicant is responsible for its own cost to conduct an Applicant-performed independent SIS (including without limitation the cost of any third-party Applicant Consultants involved in the effort to produce an independent SIS). The Applicant is also responsible to reimburse PGE's reasonable cost to provide system information to facilitate an Applicant-performed independent SIS and up to \$1,000 to cover PGE's cost to evaluate and address the results from the Applicant-performed independent SIS.

