

Affected System Study Submission Checklist

The purpose of this checklist is to ensure that Affected System Interconnection Customers executing an Affected System Study Agreement or Multiparty Affected System Study Agreement are prepared to meet all requirements to initiate the Affected System Study. Within ten (10) Business Days of receipt of the agreement, customers must execute and return the agreement, deposit, and all required technical data. Failure to meet these requirements, or failure to cure any identified technical data deficiency within the applicable cure period, will result in loss of the Affected System Queue Position. In such cases, Idaho Power will notify the host Transmission Provider of the deficiency, and any project wishing to proceed thereafter must reinitiate the Affected System interconnection process with Idaho Power.

1. Submitting Your Affected System Study Agreement

- ☐ When submitting the Affected System Study Agreement (AFSA), please execute the AFSA as offered via DocuSign (if applicable) and submit the remaining data at one time via email as a Zip File or request a secure FTP Link from Idaho Power to securely upload the documents. It is necessary to notify the Generator Interconnection Team once they are uploaded.

Questions and Submission Contact Information:

Contact: Generator Interconnection Team
Email: GeneratorInterconnection@idahopower.com
Re: Affected System Study Agreement Submission: (Project Name)
Phone: 208-388-2658

2. Agreement

- ☐ Executed [Appendix 9](#) or [Appendix 10](#) to the LGIP

3. Financial Requirements

- ☐ **Study Deposit: \$80,000** in the form of cash

Payment Instructions:

IPC EFT-Wire/ACH Instructions

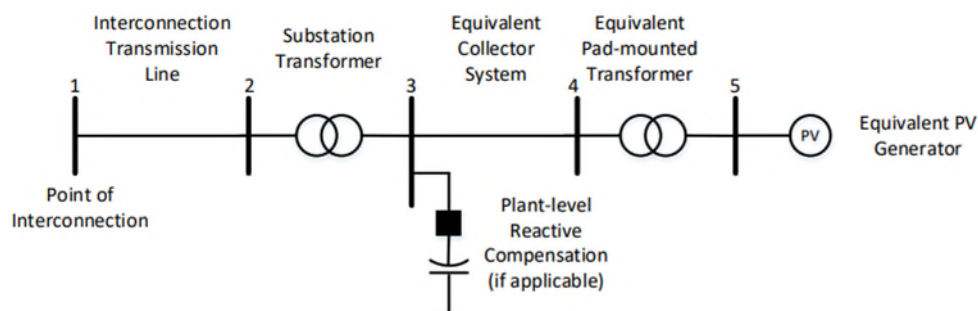
To: Idaho Power Concentration Account
Bank: Wells Fargo Bank, Boise ID
Bank ABA: 121000248
Account #: 4000033514
Account Type: Checking
SWIFT: WFBIUS6S

4. Modeling

All models must be accurate and detailed representations of expected, or as-built, facilities. Models must remain valid throughout the interconnection studies and the lifecycle of the project.¹

- ☐ **Single Line Diagram**
- ☐ **Map with proposed interconnection transmission line (gen-tie line) route from collector substation to the POI.**
 - Include the length of the gen-tie line in miles and the conductor type.
- ☐ **Project/Inverter Data Sheets**
 - Include PQ capability curve (see notes in Projects with Energy Storage Components)
- ☐ **Appropriately parameterized generic library RMS positive sequence dynamic models**
 - Use GE PSLF Models
 - The model should be properly parametrized². The default parameters listed in the library model are provided as a starting point to prevent model initialization issues. These parameters are not suitable replacements for site-specific parameters.
 - A list of approved models can be found on the WECC site under the Modeling and Validation Subcommittee.
- ☐ **A validated PSCAD electromagnetic transient (EMT) model.**
 - Only required for Non-Synchronous Generator submissions.
 - EMT model should adhere to the requirements listed by the latest version of the [Electranix PSCAD requirements](#).
- ☐ **Steady State Power Flow Models**
 - Use .epc, or .pwb data formats only.

An example of a single-generator equivalent power flow representation for a solar PV power plant is shown here³:



¹ North American Electric Reliability Corporation (NERC), "Dynamic Modeling Recommendations – Recommended Modeling Practices and List of Unacceptable Models," [North American Electric Reliability Corp | Home](#)

² Federal Energy Regulatory Commission (FERC), "Pro forma LGIP", Attachment A to Appendix 1, <https://www.ferc.gov>, August 20, 2024

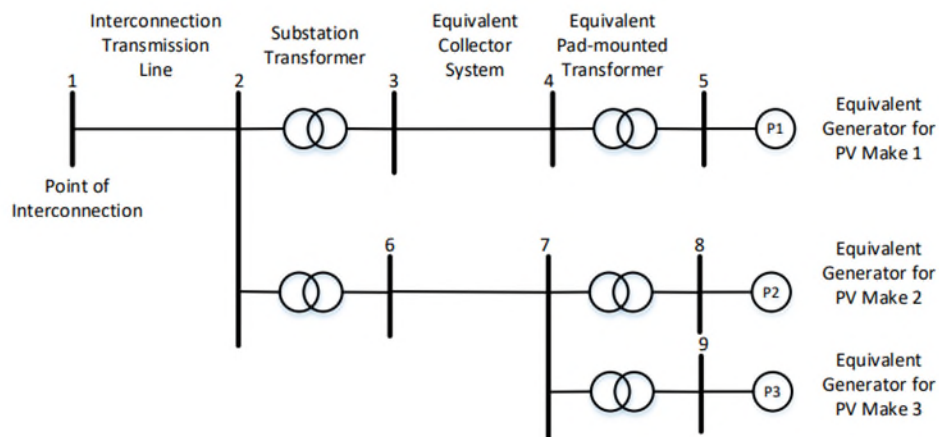
³ Western Electricity Coordinating Council Modeling and Validation Work Group, "WECC PV Power Plant Dynamic Modeling Guide," WECC Renewable Energy Modeling Task Force, April 2014

Single-generator power flow model notes:

- An explicit representation of the interconnection transmission line.
- An explicit representation of all station transformers.
- An equivalent representation of the collector systems.
- An equivalent representation of inverter pad-mounted transformers with a scaled MVA rating.
- An equivalent representation of generators scaled to match the total capacity of the plant.
- An explicit representation of all plant-level reactive compensation devices either as shunts (fixed or switchable) or as generators (FACTS devices), if applicable.

If a plant has different makes of the inverters installed and these inverters have different reactive capability, control setup, or protection setup, a multi-generator representation is required. The determination of single or multiple generator equivalence should take into account the number of the main substation transformers, the collector system behind each main substation transformer, the placement of different makes of inverters behind the main substation transformers, the setting difference among inverters, and the mix of different inverters.

An example of a multi-generator equivalent power flow representation for a solar PV power plant is shown here:



Multi-generator power flow model notes:

- Each substation transformer is explicitly represented in the power flow model.
- If the same inverters are installed behind the substation transformer, represent the inverters with one equivalent collector circuit, one equivalent pad-mounted transformer, and one equivalent generator.

- If different inverters with the same control and protection setting are installed behind one substation transformer, represent all inverters by one equivalent collector circuit, one equivalent pad-mounted transformer, and one equivalent generator.
- If inverters with different settings are installed behind the same substation transformer, model each type of inverter that has at least 10 MVA installed capacity by one equivalent generator with its own equivalent pad-mounted transformer. The type of inverters less than 10 MVA installed capacity may be aggregated with another type of inverter in one equivalent generator.

☐ **Executed Application** filed with host Transmission Provider.

☐ **Other Applicate data** as submitted to host Transmission Provider.

Projects with Energy Storage Components:

- ☐ **Project/Inverter Data Sheets** are provided in Exhibit A to the [Energy Storage System Process](#).
- ☐ **The requested operating assumptions** (i.e., whether the Generating Facility will or will not charge at peak load) to be used by IPC that reflect the proposed charging behavior of the Generating Facility.
- ☐ **A description of any control technologies** (software and/or hardware) that will limit the operation of the Generating Facility to the operating assumptions submitted.

Review/Revision History

Review Date	Revisions
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07/28/2026	Initial Affected System Study Submission Checklist
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