



Southwest Power Pool

Guidelines for the SPP GCP Process and Business Practices

Based on SPP Tariff Attachment AY, Effective 3/1/2026



October 2026

REVISION HISTORY

DATE OR VERSION NUMBER	AUTHOR	CHANGE DESCRIPTION
10/1/2026	GI Staff	Original

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GUIDELINES FOR GENERATOR INTERCONNECTION REQUESTS TO SPP'S TRANSMISSION SYSTEM

This guideline is primarily based on Southwest Power Pool's Open Access Transmission Tariff Attachment AY Generator Connection Procedures (GCP) and current SPP business process and practices for the administration of Generator Interconnection Request Queue Studies. Southwest Power Pool (SPP) Generator Interconnection Request (GIR) process is reduced to just a single application stage that encompasses both Validation and Study Acceptance.

Under the current SPP Tariff Attachment AY, submitting a GIR requires full completion of Appendix 3, and Attachment A, B and C; along with all cash study deposits and required security deposits. Reasonable demonstration of Site Control, including requirements for the Gen Tie Line Right of Way (ROW) must include a completed and signed Attestation for Demonstration of Site Control form. Additional information may be required before the GIR Application is reviewed and validated.

Reference SPP Tariff Attachment AY, Generator Connection Procedure, Section V.8 for more detail.

Upon receipt and validation of all requirements per Section V.8.2 of the GCP, SPP will notify the Customer of the GI Study Queue Number (ICS-20YY-XXX) and the request's assignment to the ICS Queue Cluster.

The following information is provided to better clarify the generator connection process.

1 GENERATOR INTERCONNECTION REQUEST

1.1 APPLICATION PROCESS

Submitting a Generator Interconnection Request under SPP Tariff Attachment AY requires full completion of Study Agreement Appendix 3 with Attachments A, B and C; all cash study deposits and required security deposits; reasonable demonstration of Site Control, including Gen Tie Line ROW, and signed Attestation for Demonstration of Site Control form. Additional information may be required before the GIR Application is reviewed and validated.

Generator Interconnection Requests must be submitted in the SPP Interconnection Management System (SIMS) portal: <https://sims.spp.org>

Required information for a valid request is listed below. Blank fields can delay the review and validation and possibly result in withdrawal of the submitted application. This summary does

not replace any required information listed in the Generator Interconnection Study Agreement Appendix 3, and Attachment A, B or C; nor supersedes additional information that may be requested at any future date to complete the study.

Attachment A to Appendix 3 includes, but is not limited to:

- Type of Generating Facility for which the service is requested.
- Type of Interconnection Service requested (ERIS or NRIS).
- Location of the Generating Facility site (address, GPS coordinates).
- Definitive Point of Interconnection (address, GPS coordinates).
- Nameplate Capacity of the proposed new Generating Facility or the amount of increase in the Nameplate Capacity of an Existing Generating Facility, in alternating current megawatts;
- Requested Maximum Injection Capability or the amount of increase in Maximum Injection Capability in megawatts (Maximum Injection Capability must be less than or equal to Nameplate Capacity).
- Requested Network Resource Deliverability or the amount of increase in Network Resource Deliverability in megawatts (Network Resource Deliverability must be less than or equal to Maximum Injection Capability).
- One-Line Diagram illustrating the POI, transmission lead(s), main project transformer(s), collector system cable(s), generator step-up transformer(s), and generating unit(s).
- Proposed Commercial Operation Date.
- Contact information for the Interconnection Customer.
- Geographical map indicating the proposed Point of Interconnection (POI) and Generating Facility.
- Fuel type.
- Primary frequency response operating range (energy storage resources only).
- For request for Generating Facility Replacement, the planned or actual date of cessation of operation of the Existing Generating Facility: (month/day/year).
- Required cash Study Deposits and Security Deposits.

Financial Securities may be in the form of cash, Letter of Credit, or Surety Bond.

- Evidence of ownership in or right to acquire the site of the proposed plant, including the Gen Tie Line ROW, referred to as Site Control. SPP is unable to accept Letters of Intent or

Memorandums of Understanding for negotiation purposes. Demonstration of actual control over real property must be provided:

- Wind: For capacity of the Generating Facility for a wind-powered generating facility, the recommended minimum accepted site control is 30 acres/MW of wind generation or Manufacturers Specifications
 - Solar: For a solar-powered generating facility, the recommended minimum accepted site control is 6 acres/MW of solar generation or Manufacturers Specifications
 - Storage: For a storage generating facility, the recommended minimum accepted site control (without a detailed layout) is 1 acre/MW of generation or Manufacturers Specifications
 - Conventional: For a conventional generating facility, the recommended minimum accepted site control (without a detailed layout) is 40 acres or site layout.
 - If the Customer provides a reasonable site layout demonstrating it can site the generating facility on less acreage, SPP may accept such demonstration as acceptable site control, per Section V.8.2.a in the GCP.
 - Additional detail regarding SPP Site Control Criteria may be found in Appendix 1 to this document.
 - All site control submitted must be accompanied by an Attestation for Demonstration of Site Control form. This form must be completed by the Interconnection Customer. You can find the document here:
<https://opsportal.spp.org/documents/studies/Demonstration%20of%20Site%20Control%20Attestation%20FormICS.pdf>
- Additional Site Control requirements include the Gen Tie Line ROW, and the option of providing 'in lieu of' Financial Securities:
 - Site Control for at least fifty percent (50%) of the Generating Facility's high voltage tie line to Point of Interconnection; **OR**
 - Additional financial security in the amount of \$80,000 per the entire line right-of-way mile.

Attachment B to Appendix B includes, but is not limited to:

- Study Assumptions involving specific location of the Point of Interconnection.
- Interconnection facilities tie line information.
- Generating Facility Data, including generator Unit Ratings; Combined Turbine-Generator-Exciter Inertia Data; Reactance Data (PU – rated KVA); Field Time Constant Data; Armature Time Constant Data.
- MW Capability and Plant Configuration Generating Facility Data, including Armature Winding Resistance Data (PU); performance Curves; Generator Step-Up Transformer Data

and Ratings; Main Generator Step-Up Transformer Data Ratings; Excitation System Data; Governor System Data; Multiple-Unit Generating Facilities; Induction Generators.

- Charging parameters of energy storage resources, that include maximum rate of charge, and leading / lagging Charging Power Factor.
- Inverter-Based Resource Data for Phase-Locked Loop (PLL) controller parameters and Electromagnetic Transient (EMT) Model data. This data is not required upon initial submission of the Generator Interconnection Request. Interconnection Customer will be notified when that data is required.

Attachment C to Appendix B includes, but is not limited to:

- Interconnection Facilities Study Data, including location plan and simplified one-line diagram; metering configuration; Auxiliary Power; Transfer Bus information: Control System Scheme and Protocol; Bus and Line Length; Site Map, Towers, Easement; and key project commencement dates
- Designation of the Transmission Owner's service area to the Generating Facility
- Proposed Construction Date, Feedback Power date for the transformer, Generator Testing and Commercial Operation Date

When submitting the generator interconnection application and technical data for any new request, the application must be complete, whole, and independent of any previous GIR. SPP is unable to complete or make corrections or edits of any documentation for the Interconnection Customer. Failure to submit complete information could result in the application request not being validated in time for the study window. At no time will SPP rebuild application or data requirements from previous GIRs on record.

Once received, SPP will acknowledge receipt of the Interconnection Request within five (5) Business Days. SPP will review the completed application during the ICS Review Period.

Please note that validation of the application does not constitute a "compatible" model set for the performance of studies. All modeling files provided pursuant to any generator interconnection application are subject to a "compatibility" test with **PSS®E version 35.6 and 36.2** power flow software. Failure to provide a compatible model will result in a Cure Deficiency notification. Interconnection Customer shall have fifteen (15) Business Days from the date of the notice to cure any deficiencies, which may extend beyond the GIR Application Review Period. Failure to resolve the deficiency will result in the GIR's withdrawal from the queue and loss of queue position.

1.2 GENERATOR INTERCONNECTION STUDY AGREEMENT

All study deposit payments may be in the form of check or wire transfers and must be submitted concurrent with any required application or agreement. For a security payment, cash via check or wire transfer is acceptable, Surety Bond, or a Letter of Credit that meets the SPP Credit Policy in Attachment X of the Tariff may also be submitted. Prior to release of any cash study deposits or financial securities, all GIRs must provide both a current and completed IRS W-9 Form and an SPP Study Deposit Refund and Disposition Form. SPP bank wiring instructions can be provided upon request.

Generator Interconnection Customers that wish to obtain transmission service must request transmission service in accordance with the terms of SPP's Open Access Transmission Tariff (OATT).

SPP's Generator Interconnection Study Agreement and the Interconnection Procedure may be downloaded by visiting www.spp.org and navigating at the tool bar to Engineering > Generator Interconnection > and then selecting the specific hyperlinks to the Generator Interconnection Procedure (GIP) or other sections. Any questions regarding GIRs can be addressed to the SPP RMS system: <https://rms.spp.org/s/>

1.3 OVERVIEW OF STUDY DEPOSIT AND SECURITY REQUIREMENTS

All initial applications for Generator Interconnection Requests are required to submit a cash Study Deposit and an initial Security Deposit (cash, Letter of Credit (LOC), or Surety Bond), along with the forms from Appendix 3 and Attachment A, B and C to Appendix 3.

For additional information, please refer to the GI Finances document:

<https://opsportal.spp.org/documents/studies/Finance-%20ICS%20Finances%20Requirements-Risks-Refunds.pdf>

2 QUEUE PRIORITY

All Interconnection Requests within the same ICS Queue Cluster Window shall have equal priority.

2.1 INITIAL QUEUE POSITION

When a GIR is submitted and validated and accepted into the ICS Study Queue, the request is given an Initial Queue Position. The Initial Queue Position is an identifier for the GIR but does

not assign any priority to the request. This Initial Queue Position will be identified as ICS-20YY-XXX, where

- YY is the year the CPP cycle will complete for the ICS being entered
- XXX identifies the specific request within the year of submission

The GIR will keep its Initial Queue Position number throughout the ICS of the GCP and beyond into the GIA stage.

3 ICS OPEN WINDOWS

The initial Open Queue Cluster Window opened on April 1, 2026. This initial window will adhere to the rules in Section V.5.1.1 of the GCP. SPP anticipates this initial window to close in mid-January, 2027.

Subsequent to the initial window, future Open Queue Cluster Windows will be December 15th to February 15th, annually.

For information on projected Cluster Study completion dates, you may refer to this web page located at: http://opsportal.spp.org/documents/studies/sppgistudyupdate_weekly.pdf

4 GLOSSARY OF ABBREVIATIONS

Term	Definition
DF	Distribution Factor
DISIS	Definitive Interconnection System Impact Study
ERIS	Energy Resource Interconnection Service
ESR	Energy Storage Resource
FERC	Federal Energy Regulatory Commission
GCP	Generator Connection Procedures
GIA	Generator Interconnection Agreement
GIR	Generator Interconnection Request
IFS	Interconnection Facilities Study
IR	Interconnection Request
NRIS	Network Resource Interconnection Service
OATT	Open Access Transmission Tariff
POD	Point of Delivery
POI	Point of Interconnection

PTDF	Power Transfer Distribution Factor
SPP	Southwest Power Pool
TO	Transmission Owner

5 REFERENCE DOCUMENTS

- <https://opsportal.spp.org/documents/studies/Demonstration%20of%20Site%20Control%20Attestation%20FormICS.pdf>
 - Site Control Attestation Form for ICS
- [SPP Open Access Transmission Tariff](#)
 - Generator Connection Procedures (Attachment AY)
- [SPP Business Practices](#)
 - CPP Manual
- [SPP Planning Criteria](#)
- [Seams Agreements](#)
 - AECI
 - ERCOT
 - MISO
 - Peak
 - Saskatchewan Power
 - SWPA
 - TVA
- SPP-MISO GI [Coordination Document](#)
- [SPP Disturbance Performance Requirements](#)

6 REQUESTING A STUDY MODEL

Interconnection customers may obtain SPP models in which they have an interconnection request by submitting a request through the SPP Request Management System (RMS) <https://rms.spp.org/s/> and selecting the Quick Pick "Map/Model Orders, Submit NDA".

Brief guide to requesting GI Study Models is available on this SPP Web Page: <https://opsportal.spp.org/documents/studies/RMSRequestForModels.pdf>

SPP models contain Critical Energy Infrastructure Information (CEII) and resource-specific data and are only available to entities that execute a Non-Competitive Duty Non-Disclosure

Agreement. A customer may designate a consultant or other non-competitive agent to obtain models on their behalf.

7 AFFECTED SYSTEM STUDIES

In accordance with Section V.3.6 of the GCP and Section 6 of Business Practice 7250, interconnection requests on non-SPP facilities that have been determined to have potential impacts on the SPP transmission system may be required to undergo an SPP affected system impact study. Interconnection requests to a facility under another provider's OATT are studied outside the SPP queue process with an estimated study completion of 150 days once prior study dependencies are met. Interconnection requests to a facility not under another provider's OATT are studied within the SPP ICS System Impact Study. Queue priority is determined by the date of execution of the host transmission provider's system impact study agreement or, if applicable, the cluster request window closing date.

To alleviate impacts on the SPP transmission system, all SPP identified Network Upgrades are required to be placed into service prior to full interconnection service on the host transmission provider being available. Additional Limited Operation Impact Studies (LOIS) are available upon request. Requests with SPP identified Network Upgrades require that an SPP Facilities Study be performed and the subsequent execution of an SPP Facilities Construction Agreement.

Requirements for Affected System Study requests¹ are:

1. Affected system study deposit of \$15,000 per request (please reference request name and/or number on wire transaction details)
2. Affected System Study Agreement (including Attachment A)
3. Parameters of Generators (Nameplate kVA, power factor, maximum inverter power, etc.)
4. Parameters of the pad mount transformers for the inverters (MVA rating, impedance, and X/R ratio)
5. Parameters of the substation main transformer (Minimum MVA rating/Maximum MVA rating, impedance on the self-cooled MVA rating, X/R ratio)
6. Collector system information in excel format
7. Parameters of the transmission lead from the generation facility to the Point of Interconnection (impedance of the lead in PU on 100 MVA system base, B (line charging) in PU, and the length of the transmission lead)
8. PSS/E dynamic model (and user guide) for the inverters compatible with latest PSS/e version utilized by new requests to SPP's ICS process

Requirements for Affected System Facilities Study requests are:

¹ Per SPP-AECI and SPP-MISO JOAs, affected system studies for requests in the AECI and MISO queues are coordinated with SPP and do not require a separate application or study deposits with SPP.

1. Affected system study deposit of \$15,000 per request (please reference request name and/or number on wire transaction details)
2. Affected System Interconnection Facilities Study Agreement (including Attachment A and B)

8 APPENDIX 1

8.1 *SITE CONTROL CRITERIA*

8.1.1 **INFORMATION THAT SPP IS SEEKING**

Documentation must reasonably demonstrate that Site Control exists and/or is in place.

- Site Control should defensibly show: ownership, right to develop, purchase, acquire, possess or occupy through an 'exchange of real property'.
- SPP is unable to accept Letters of Intent or other Agreements with exclusivity solely for discussions or negotiations.
- Site Control shall have an expiry date commensurate with the project Commercial Operation Date or beyond.
- The evidence of ownership provided for Site Control must be from the same company name that is providing the Interconnection Request or the parties must demonstrate to SPP satisfaction the relationship between the owner with site control and the party requesting interconnection
Demonstration that Site Control provides for exclusivity to the specified Interconnection Request and meets acreage requirements.
- If Site Control is not exclusive to the specified Interconnection Request, Interconnection Customer must account for any other projects that may utilize all or part of the same site or Right of Way (ROW) corridor.
- Site Control shall include, but not limited to, a Geographic Information System (GIS) site plan map, associated data files and documentation that shows sufficient acreage requirements are met and boundaries of the Interconnection Customer's land, lease / ownership for the citing of the Generating Facility, Collector Substation, the Interconnection Facilities (if applicable) and Point of Interconnection.
- If the Site is shared with other projects, the Interconnection Customer shall include demonstration their Interconnection Request is concurrently feasible with other projects that may share all or part of the same Site Control, including identification of those shared Interconnection Requests or existing Generating Facilities and any related technical information depicting how the proposed location and space will be utilized for all projects sharing the Site Control.

8.2 DOCUMENTATION NEEDED

- Reasonable Documentation that provides material control over real property. Land Lease Agreements , Leasehold Agreements or Purchase Options, citing the actual acreage, with evidence of duly notarized, filed or formally authorized agreements.

Contractual terms commensurate with Commercial Operation Date of the Interconnection Project

- Completed and Signed Attestation Form

<http://opsportal.spp.org/documents/studies/AttestationStatementForSiteControl.pdf>

- Meet minimum acreage requirements, per SPP Site Control criteria or propose alternative site size based on final layout drawings under Section V.8.2.a of the GCP and/or manufacturer's specs.
- Also meet land requirements for Generating Facility Tie Line 100% Site Control.