

Frequently Asked Questions for SCE’s Wholesale Generation Interconnection

(Not applicable for Rule 21 or CAISO projects)

Southern California Edison (SCE) offers these guidelines to help you understand our Generator Interconnection Procedures. However, in the case of discrepancies, SCE’s tariffs and interconnection documents prevail.

Note: The answers shown below were developed from the information found in the SCE’S Wholesale Access Distribution Tariff (WDAT) located at <http://www.sce.com/GridInterconnection>

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A. Contact Us for Additional Assistance

We have created this document to provide you with background information that may be helpful to you.

If you have additional questions, technical or otherwise, after reading the Frequently Asked Questions, please feel free to contact us through any of the following methods:

Email: InterconnectionQA@sce.com

Phone: (626) 302-3688

Mail: Grid Interconnection & Contract Development
Southern California Edison
2244 Walnut Grove Ave
PO Box 945
Rosemead, CA 91770

B. Getting Started

1. I am a new customer with a proposed generation project. What do I need to do?

Response

To get started and learn more about the different options available for interconnecting a generation project, please visit the “Generation Project Types” heading on our [Grid Interconnections](#) webpage. The following links are available:

- [Generating Power for Sales](#) (start here if you plan to export your power for sale)
- [Programs for Self-Generation at Home or Business](#) (start here if you plan to generate power for use at the generating facility site)
- [Backup Systems](#) (start here if you are installing a backup system)

2. Should a developer contact the CAISO or SCE for wholesale generation interconnections?

Response

If you are unsure whether to apply with the CAISO or SCE, please forward your questions to InterconnectionQA@sce.com. Please include your proposed project size (in MW) and your proposed Point of Interconnection. Alternatively, you may call the SCE Grid Interconnection helpline at: (626) 302-3688.

3. Before completing and submitting an application, how would I get some basic information about the viability of developing a generation facility at a specified site, and where to interconnect?

Response

Technical information about your project will be evaluated during the interconnection process. For some preliminary data, please see the [Distributed Energy Resource Interconnection Map \(DERiM\)](#) along with the [DERiM User Guide](#)

Disclaimer: *The DERiM maps are updated on a monthly basis. While Southern California Edison makes every effort to ensure the accuracy of DERiM, the data provided is for information only. Southern California Edison makes no guarantee, expressly or implied, for the outcome of an interconnection request.*

Additional information may be provided by requesting an optional “Pre-Application Report”. This is an optional report that is described in Section 3.1 of the [WDAT GIP](#)

The WDAT optional Pre-Application Report Request, containing fee payment instructions, is available at the following link:

[WDAT Pre-Application Report Request](#)

4. What is distribution service? Will my project need it? If so, when will I need to submit a distribution service request? How much is the deposit?

Response

Projects connecting to SCE’s distribution system (either through the WDAT or the Rule 21), are required to obtain “distribution service” with SCE. “Distribution service” allows the customer to be able to use SCE’s distribution system to “transport” their energy from the Point of Interconnection within SCE’s electric system to the CAISO system (where most power sales are expected to be delivered and settled in accordance with the CAISO market rules).

Please submit a Distribution Service Request Form and distribution service deposit “as far as possible in advance of the month in which service is to commence.” ([Wholesale Distribution Service Request Form](#))

The Distribution Service Deposit is \$2.00 per anticipated average monthly kilowatts of Generation or Wholesale Distribution Load.

To figure out your distribution service deposit:

- Convert your system size to kW, and multiply times the capacity factor rating. This will give you the anticipated kWh.
- Multiply your anticipated kWh amount by \$2 to calculate the distribution service deposit.

For example:

- A 10 MW system = 10,000 kW
- (10,000 kW) X (capacity factor of 25%) = 2500 kWh
- (2500 kWh) X (\$2) = \$5000 distribution service deposit

5. What’s the difference between applying under the WDAT vs. Rule 21 Tariff? What’s the right tariff for my project?

Response

The WDAT is a FERC jurisdictional tariff and Rule 21 is under the CPUC jurisdiction. There are some differences in the study processes under the two tariffs. Please refer to SCE’s WDAT and SCE’s Rule 21 for each tariff’s applicability.

Prior to applying for interconnection service under any of the tariffs above, consult with the entity you are negotiating a Power Purchase Agreement (PPA) with to identify any requirements that may affect the selection of the interconnection process.

6. What documents must be submitted with a WDAT Interconnection Request?

Response

In order to begin processing your WDAT Interconnection Request, we need the following:

- Application form: [Appendix 1 - Interconnection Request for a Generating Facility](#).
- A single-line drawing; [sample drawings](#) are available
- Site/plot plan drawing
- Confirmation of payment of the application fee or deposit
- Proof of [Site Exclusivity](#)
- Diagrams, manufacturer’s data, and written descriptions of the generating facilities

Please refer to the WDAT for the specific application forms and requirements at the following links:

[WDAT Interconnection Request Application Form](#)
[Wholesale Distribution Service Request Form](#)

7. Is there a limit on the number of Interconnection Requests submitted by the same entity?

Response

No, there is no limit on the number of Interconnection Requests that can be submitted.

8. When can we submit an Interconnection Request?

Response

For projects submitting an Interconnection Request under the Cluster Study Process, there is one Cluster Application Window per year (generally, April 1 to April 30). In 2017, since both dates fall a weekend, the QC10 application window opens Monday, April 3 and closes May 1, 2017.

Projects submitting an interconnection request under the Fast Track or Independent Study Process can do so at any time throughout the year.

For additional requirements for both WDAT and Rule 21, please visit our Grid Interconnections web page located at:

<http://www.sce.com/gridinterconnection>

9. How do I size my project for a particular location?

Response

It is the customer’s decision to propose the size of the generating facility. SCE will conduct studies based on the technical specifications provided in your Interconnection Request. The studies will identify any facilities necessary for such a project to interconnect to SCE’s distribution system. Please refer to Question 3 above for further details about maps and optional Pre-Application reports.

10. Can you provide more information about upgrade costs?

Response

SCE’s unit cost guide is available on the CAISO website at the following link:

<http://www.caiso.com/informed/Pages/StakeholderProcesses/ParticipatingTransmissionOwnerPerUnitCosts.aspx>

11. Can SCE provide a referral to consultants/engineers that understand the interconnection process and that can assist us with the documentation?

Response

SCE does not provide referrals for consultants/engineering firms.

12. Does SCE provide training for single line drawings?

Response

SCE provides information and examples of single line drawings in SCE’s [Electrical Service Requirements](#) (ESR) Handbook.

13. Can I submit a completed Interconnection Request (IR) package, if the single line drawing does not have a professional engineering stamp?

Response

The tariff requires the single line diagram to be stamped by a professional engineer in order to be deemed complete. If your single line does not have a professional engineer stamp, it will be considered a deficiency and must be cured in order to be deemed complete.

14. Where do I find more general information about meters or switchboards?

Response

SCE’s [Electrical Service Requirements](#) (ESR) Handbook provides guidance and instructions pertaining to electrical service connections, and includes information about meters and switchboards. The purpose of the ESR is to assist electrical contractors, engineers, architects, and manufacturers engaged in the installation of electrical service wiring and equipment.

In many cases, your local Service Planning Office may also be of further assistance. A list of locations and phone numbers is available on Table 1-2 of the ESR.

C. Interconnection Queue

1. When will we know where we are positioned in the interconnection queue after applying?

Response

The queue position date for each project (which determines its cost responsibility for upgrades) is established once the Interconnection Request is deemed complete (in accordance with the requirements of the WDAT).

SCE publishes the interconnection queue (updated monthly) for public viewing at the following link:

http://www.sce.com/nrc/aboutsce/regulatory/openaccess/wdat/wdat_queue.xls

D. Fast Track or Independent Study Process (ISP), review for eligibility

1. What is the Fast Track process?

Response

The “Fast Track” process is an expedited process to evaluate a request to interconnect eligible new generation to SCE’s electric system. The Fast Track process is intended for projects up to 5 MW for interconnection requests under SCE’s WDAT. The application can be completed at any time of the year and allows an *eligible* facility to bypass some interconnection studies *if* it meets a series of “screens”.

The Fast Track Process is intended for projects that can be interconnected without system upgrades: it allows for a faster review of an Interconnection Request against a set of predefined screens to determine whether the project can interconnect without the need for detailed engineering studies or upgrades to SCE’s electric system. The Fast Track Process is described thoroughly in Section 6 of the GIP.

To learn more about SCE’s WDAT Fast Track process please visit:

<https://www.sce.com/wps/portal/home/business/generating-your-own-power/Grid-Interconnections/Wholesale-Distribution-Access-Tariff/>

(scroll down the page and select “Fast Track Process Under The GIP”)

2. What are the Fast Track eligibility requirements?

Response

Fast Track eligibility is determined based upon the generator type, generator size, line voltage and the Point of Interconnection.

Fast Track eligibility requirements are described in Section 6.1.1 of the GIP. To learn more about SCE’s WDAT Fast Track process please visit:

<https://www.sce.com/wps/portal/home/business/generating-your-own-power/Grid-Interconnections/Wholesale-Distribution-Access-Tariff/>

(scroll down and select “Fast Track Process Under the GIP”)

3. What is the difference between an Initial Review and Supplemental Review? Does every project need both?

Response

The Initial Review and Supplemental Review are both parts of the Fast Track process. All Fast Track Applications will undergo the Initial Review process, which essentially is a high-level assessment of whether or not the project may cause any potential issues to SCE’s existing system (with the existing queue of generators). An initial review consists of 10 screens. When the engineers have completed the initial review, the results will be forwarded to you.

If required, your project may need a Supplemental Review. A Supplemental Review includes 3 additional screens. These screens may indicate that your project may be interconnected under the Fast Track process when only minor modifications are needed. The Supplemental Review could also reveal that additional study is needed. It takes 20 business days after you provide a \$2500 deposit. Projects that successfully pass initial review screens will be allowed to interconnect without a supplemental review.

Projects that pass the supplemental review will be allowed to interconnect without further engineering studies. Failure to pass Fast Track screens (after the initial review and the supplemental review have been performed) means that the project needs further review

(or study) before it can interconnect to SCE’s electric system. It does not mean that the project cannot be interconnected.

To learn more about SCE’S WDAT Fast Track process please visit:

[Wholesale Distribution Access Tariff \(WDAT\)](#)

(scroll down and “Fast Track Process Under The GIP”)

4. How can a project qualify for processing under the Independent Study Process?

Response

The Independent Study Process (ISP) is available to any Interconnection Customer that is either (1) proposing to interconnect with the SCE's Distribution System or is seeking to increase the capacity of a generating facility that has achieved Commercial Operation, and (2) that is electrically independent of Interconnection Requests from any earlier-queued Generating Facilities. An ISP project has no size limitations, but its proposed size may affect the results of the Electrical Independence Test.

The ISP process, study deposits, and requirements are described in Section 5, and specific criteria for ISP eligibility and Electrical Independence Test are described in Sections 5.4 and 5.5 of the WDAT GIP.

For further information, please click on the following link:

<https://www.sce.com/wps/portal/home/business/generating-your-own-power/Grid-Interconnections/Wholesale-Distribution-Access-Tariff/>

(scroll down and select the “Independent Study Process under the GIP”)

E. Study Process

1. Is there any way for a project that uses the Fast Track Process to attain Full or Partial Capacity Deliverability Status?

Response

Yes. Fast Track projects are initially studied as “Energy-Only” projects. A Generating Facility previously studied as Energy-Only may submit a request for an Annual Full Capacity Deliverability Study under WDAT GIP, Section 4.7.2. The assessment will determine whether it can be designated for Full or Partial Deliverability Status using expected upgrades to the transmission capacity following a Phase II study.

In addition, the CAISO conducts the Distributed Generation Deliverability process to allocate deliverability currently supported by existing transmission capacity. Please refer to the CAISO website to learn more about this process. Please visit the following site for more information:

<https://www.sce.com/wps/portal/home/business/generating-your-own-power/Grid-Interconnections/The-California-Independent-System-Operator--CAISO---Wholesale-Markets>

2. Does SCE have to perform the interconnection studies or can the developer (or its contractor) perform the interconnection studies and have SCE review and approve the results?

Response

The WDAT GIP provides that SCE performs all interconnection studies.

3. In instances where more than one project affects the grid in such a way that Network Upgrades or Distribution Upgrades are required, how are the costs allocated?

Response

Cost allocation is described in Attachment I to the WDAT (GIP).

Generally, for projects studied together under the Cluster Study Process:

- Reliability Network Upgrades costs are allocated per MW for all generation in the cluster that requires the upgrades.
- Delivery Network Upgrades costs are allocated based on the flow impact of each generating project requesting deliverability.
- Distribution upgrades costs are allocated pro-rata per MW.

The responsibility to finance Network Upgrades is subject to a cap. Please refer to the WDAT for additional information.

For projects studied individually, they are 100% responsible for the costs they trigger. Generally, Interconnection Facilities costs are allocated 100% to the generating facility that requires the facilities.

4. Is there an additional interconnection study deposit required for Phase II Interconnection Study of the Cluster Study Process?

Response

For projects studied under the Cluster Study Process, there is a one-time Interconnection Study Deposit made at the time the Interconnection Request is submitted. However, you will be responsible for the actual costs to perform these studies. If your Interconnection Study costs exceed your deposit, you will be billed for the difference following the completion of the studies.

5. Will the allocations increase over time if some developers in a cluster drop out once they see their upgrade allocations?

Response

Cost allocation as described in the GIP, section 4.5.4, the Interconnection Customer’s “maximum financial responsibility” is determined by the interconnection studies. The “maximum financial responsibility” is defined as the lower of the Phase I Interconnection Study or Phase II Interconnection Study costs allocated to each customer. Therefore, financial responsibility can go down in Phase II but cannot increase from Phase I. This is often referred to as the Phase I cost cap. The "maximum financial responsibility" cost allocation only applies to a project's Network Upgrades, since Distribution Upgrades and Interconnection Facilities are based on actual costs.

In addition, section 5.9.6 of the GIP explains the maximum cost responsibility and may be helpful.

6. Is one of the results of the Cluster Study the granting of Full Capacity Deliverability Status for projects in that cluster?

Response

Yes, to the extent the Interconnection Customer requests Full Capacity or Partial Capacity Deliverability Status on its Interconnection Request and Attachment B; and the CAISO determines deliverability can be granted to that request.

7. Are there any additional requirements to proceed from Phase I to Phase II in the Cluster Study Process (i.e., what might stop a project getting into Phase II)?

Response

The requirements to proceed to a Phase II study are set forth in Section 4.6 and 4.8 of the WDAT GIP. These include: posting the required Interconnection Financial Security, and completing the data form (Attachment B to Appendix 3 of the WDAT GIP) prior to the commencement of the Phase II Interconnection Study.

F. Material Modification Assessment

1. Can I modify my Interconnection Request after I submit it?

Response

For projects that have submitted an Interconnection Request in the Cluster Study Process certain modifications may be allowed if agreed upon and acceptable to SCE and CAISO as applicable, and the Interconnection Customer. The tariff describes permitted modifications in GIP Section 4.5.7.2. Likewise modifications for projects requesting interconnection under

the Independent Study Process may be allowed and must be agreed upon, as provided in GIP Section 5.8.1.6.

Please note that similar modifications are not permitted in the Fast Track process under the WDAT (although some minor modifications may be permitted).

In addition, Material Modifications are those modifications that have a material impact on the cost or timing of any Interconnection Request with a later queue priority date. If your proposed changes are considered to be a “Material Modification” you will be required to withdraw the modification or the Interconnection Request.

For additional details, please reference the WDAT, GIP, section 4.5.7.2.3 (for the Cluster Study Process) and section 5.8.1.6 (for the Independent Study Process).

G. Interconnection Agreement

1. At what point in time is the money spent on Network Upgrades refunded back to the entity that paid for them?

Response

Section 10.4 of the GIP describes the funding of Network Upgrades. Section 10.4.1.2 further describes the repayment to the Interconnection Customer upon the Commercial Operation Date of the Generating Facility, in accordance with the methodology set forth in Article 11.4 of the Generator Interconnection Agreement (GIA), for the Interconnection Customer’s contribution to the cost of (a) Reliability Network Upgrades up to a maximum of \$60,000 per MW of generating capacity as specified in the GIA, and (b) Local Delivery Network Upgrades, with some exceptions. The money collected from the customer for Network Upgrades refunds (plus interest) are typically made on a straight-line basis over the five years after achieving commercial operation. There may be some additional exceptions as outlined in the project’s Interconnection Agreement.

2. Can I see a copy of the WDAT GIA?

Response

The currently effective pro forma GIA for the Cluster Study Process is found in Appendix 5.2 to the WDAT GIP; the pro forma GIA for the Independent Study Process is found in Appendix 6.2 to the WDAT GIP; and the pro forma GIA for the Fast Track Process is found in Appendix 7 to the WDAT GIP. The appendices (which are blank) will be developed and completed after completion of the last study.

- [Appendix 5.2 - Generator Interconnection Agreement \(GIA\) for a Generating Facility Interconnecting Under The Cluster Study Process \(Applicable for Queue Cluster 5 and Subsequent Queue Clusters\)](#) (effective October 1, 2014)
- [Appendix 6.2 Generator Interconnection Agreement \(GIA\) for a Generating Facility Interconnecting Under the Independent Study Process \(Applicable To](#)

- [Interconnection Requests Received On and After December 1, 2012](#) (effective October 1, 2014)
- [Appendix 7 - Generator Interconnection Agreement for a Generating Facility Interconnecting Under the Fast Track Process](#) (effective October 1, 2014)