



*Pacific Gas and
Electric Company*

Frequently Asked Questions

Title: FERC Small Generator Interconnection Procedures (SGIP) FAQs for Distribution Level Interconnection Requests

Purpose

This page provides general questions and policies for distribution level SGIP Interconnection Requests.

Background

Recently PG&E was granted approval by the CPUC for our PV Solar Program, which will interconnect 500 megawatts of PV Solar generation on the electric system over a 5-year span. PG&E anticipates the majority of these interconnections will be in the 2 – 20 megawatt range.

Historically, this large size of generation has rarely occurred on the distribution system, if ever, and not with distributed inverter technology. In addition, the program is expected to greatly increase the number of these units; 250 megawatts by PG&E and 250 megawatts by third party entities.

PG&E commissioned a cross-functional technical team to clearly define and resolve any technical criteria for these new types of generation interconnections. This resulted in the publication of an internal PG&E document titled "[PV Solar Interconnections](#)" (document number 073142 in the manual Substation Design Criteria), along with some additional SGIP process improvements, methodologies and study templates. Although focused on inverter technology, this bulletin, found in the DIH,, applies to all types of generation requesting an interconnection at distribution level under FERC SGIP.

Along with the published technical bulletin, PG&E will be maintaining this FAQ page to provide frequently asked questions and general policies.

Pre-Application Process

How much will interconnection cost?

The interconnection cost to PG&E's electric system is site specific. PG&E's electric system is designed and built to serve PG&E's retail and wholesale customers. The electric system that is nearest to your site may or may not have the capacity to receive the amount of generation proposed. As a result, there may be specific interconnection upgrades, distribution upgrades, and network upgrades necessary to accommodate the interconnection request. The study process is designed to provide the interconnection customer the scope, schedule, and cost of these project specific upgrades required.

Where are the Substations?

The map below identifies areas with a circuit voltage of 12kV or 21kV and substation capacities that suggest a higher likelihood for successful photovoltaic generator interconnection. Each highlighted area contains at least one substation transformer, and the approximate capacity of the largest transformer is shown.

This map is a tool to help PV developers identify potential PV project sites, but it is not a guarantee that generators can interconnect at any particular time and place. Several factors influence the ability and cost of interconnecting photovoltaic systems to the electric distribution system, including the size of the PV system, substation and circuit load and capability, and voltage considerations. Actual interconnection requirements and costs will be determined following detailed studies that consider your specific project location, size, and application date compared to other projects in the same vicinity. Additionally, government permitting procedures designed to minimize environmental and land use impacts are independent of our interconnection process and may limit the suitability of a particular site, including sites that are highlighted in this map.

<http://www.pge.com/b2b/energysupply/wholesaleelectricssolicitation/PVRFO/index.shtml>
<http://www.pge.com/b2b/energysupply/wholesaleelectricssolicitation/PVRFO/pvmap/>

Should I connect here?

PG&E distribution and transmission system runs throughout our service territory. The interconnection site that you propose may be near distribution or transmission facilities (60kV and above is considered PG&E's transmission system. SoCal Edison's transmission system voltage is 115kV and above). PG&E will review and connect your generating facility to your proposed point of interconnection whether it is transmission or distribution. However it is important to note that it is the interconnection customer's responsibility to transform their power to the interconnection voltage level. This cost should be accounted for in your project economics.

If you are unclear of what voltage the electric facility nearest to your project site is, please feel free to request a Pre-Application assessment described below.

How much generation can I produce?

The Small Generator Interconnection Procedures (SGIP) is for generating facilities no larger than 20 megawatts. To generate more than 20 megawatts, please submit a Large Generator Interconnection Procedures application to PG&E or CAISO (Transmission). On August 13, 2010, PG&E filed to add Large Generator Interconnection Procedures to its Wholesale Distribution Tariff. PG&E now accept requests to interconnect projects larger than 20 megawatts to its distribution system, although, in most cases, PG&E's distribution system is unlikely to accommodate such a large unit for interconnection.

Where does my application go?

PG&E handles the interconnection procedure for small generators (20 megawatts or less) and large generators (20 megawatts or more) interconnecting with the distribution system. New applicants for interconnection under this procedure should follow the procedures and forms in [Attachment E of PG&E's Wholesale Distribution Tariff](#) (PDF, 434 KB). Please visit [Generation Interconnection Services](#) homepage for links to applications.

The CAISO handles the interconnection procedures for small and large generator interconnections with the transmission system. New applicants for interconnection under either procedure should follow the procedures and complete the forms which can be found on the CAISO homepage. Please visit the [CAISO](#) Interconnection homepage for more information information.

Pre-Application Assessment

To assist in your assessment of project feasibility prior to formally submitting an application, please feel free to request a Pre-Application assessment. This Pre-Application assessment will include:

- 1) Nearest Distribution Line Name, Voltage, and Capacity. (This Capacity will be derived from type of conductor and not based on current load and generation on the distribution line. The Capacity provided may not be the available capacity at the time you apply).
- 2) Nearest Distribution Substation Name and Capacity. (This Capacity will be derived from the size of the transformer bank and not based on current load and generation tied to distribution substation. The Capacity provided may not be the available capacity at the time you apply).
- 3) List of Interconnection Projects and their respective generating capacity and Queue positions connecting near your generation site. (Please note that this list will include all projects received up to the date of the most recent Queue. New interconnection requests may be received from date of the Pre-Application assessment to your Interconnection Request date).

Please note that this assessment does not include the scope, schedule, and cost of upgrades required. This assessment is information pertaining to the distribution system nearest to your interconnection site.

Section 1.2 from Attachment E of PG&E's Wholesale Distribution Tariff

1.2 Pre-Application

The Distribution Provider shall designate an employee or office from which information on the application process and on an Affected System can be obtained through informal requests from the Interconnection Customer presenting a proposed project for a specific site. The name, telephone number, and e-mail address of such contact employee or office shall be made available on the Distribution Provider's Internet web site. Electric system information provided to the Interconnection Customer should include relevant system studies, interconnection studies, and other materials useful to an understanding of an interconnection at a particular point on the Distribution Provider's Distribution System, to the extent such provision does not violate confidentiality provisions of prior agreements or critical infrastructure requirements. The Distribution Provider shall comply with reasonable requests for such information.

Application Process

Interconnection Requests

Interconnection Customers can submit Interconnection Requests by email or mail.

Please note that PG&E **prefers** to receive Interconnection Requests via email.

Mail:	PG&E Attention: Generation Interconnection Services, Wholesale and Retail Team Mail Code N7L P.O. Box 770000 San Francisco, CA 94177
Email Applications and Questions: (Preferred)	gen@pge.com
General Question Hotline:	415-972-5676

Section 1.3 from Attachment E of PG&E's Wholesale Distribution Tariff

1.3 Interconnection Request

The Interconnection Customer shall submit its Interconnection Request to the Distribution Provider, together with the processing fee or deposit specified in the Interconnection Request. The Interconnection Request shall be date- and time-stamped upon receipt. The original date- and time-stamp applied to the Interconnection Request at the time of its original submission shall be accepted as the qualifying date- and time-stamp for the purposes of any timetable in these procedures. The Interconnection Customer shall be notified of receipt by the Distribution Provider within three Business Days of receiving the Interconnection Request. The Distribution Provider shall notify the Interconnection Customer within ten Business Days of the receipt of the Interconnection Request as to whether the Interconnection Request is complete or incomplete. If the Interconnection Request is incomplete, the Distribution Provider shall provide along with the notice that the Interconnection Request is incomplete, a written list detailing all information that must be provided to complete the Interconnection Request. The Interconnection Customer will have ten Business Days after receipt of the notice to submit the listed information or to request an extension of time to provide such information. If the Interconnection Customer does not provide the listed information or a request for an extension of time within the deadline, the Interconnection Request will be deemed withdrawn. An Interconnection Request will be deemed complete upon submission of the listed information to the Distribution Provider.

Simultaneous Interconnection Requests to both CAISO and PG&E

PG&E has recently received a number of FERC SGIP interconnection applications that appear to be duplicates, applying to both transmission and distribution levels at the same time.

Due to the growing number of projects and the importance of accurately modeling systems and identifying critical upgrades necessary to accommodate the interconnection requests, PG&E will not accept applications for distribution and transmission SGIP interconnections for the same project. Interconnection Customers may choose to submit applications in a serial fashion but not in parallel; i.e., the former Interconnection Request must be withdrawn prior to submittal of the latter. PG&E is establishing this policy to maintain equitable treatment for all developers, by ensuring that all projects given a Queue position will be active and continue to move forward.

What is required for Administrative Data Adequacy and to be assigned a Queue position?

PG&E is maintaining a Queue for FERC SGIP distribution level projects. PG&E has established the following criteria for Interconnection Requests to be deemed complete (Administrative Data Adequacy) and to be provided a Queue position:

- 1) A complete SGIP application.
- 2) An application fee of \$1,000 (\$500 for Fast Track Procedure if qualified).
- 3) Single Line Diagram.
- 4) Site Plan.
- 5) Site Control.

The timeline to be assigned a Queue position is described below:

PG&E shall notify the Interconnection Customer and acknowledge the receipt of the Interconnection Application within three (3) Business Days of receiving the Interconnection Request.

PG&E shall notify the Interconnection Customer within (10) Business Days of the receipt of the Interconnection Request as to whether the Interconnection Request is complete or incomplete.

If the Interconnection Request is not complete, PG&E will grant the Interconnection Customer ten (10) Business Days to respond with either the outstanding elements or a request for an extension.

If the Interconnection Customer requests an extension, PG&E will grant one extension of twenty (20) Business Days.

If the outstanding elements are not provided within the extension period, the Interconnection Request will be withdrawn.

Once the Interconnection Request is deemed complete within the time frame outlined above, a Queue position based on the original date and time stamp of the Interconnection Request will be assigned.

Site Control

Site Control is required for a complete application. Below is language from the Tariff for more information on Site Control.

Section 1.5 from Attachment E of PG&E's Wholesale Distribution Tariff

1.5 Site Control

Documentation of site control must be submitted with the Interconnection Request. Site control may be demonstrated through:

1.8.1 Ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the Small Generating Facility;

1.8.2 An option to purchase or acquire a leasehold site for such purpose; or

1.8.3 An exclusivity or other business relationship between the Interconnection Customer and the entity having the right to sell, lease, or grant the Interconnection Customer the right to possess or occupy a site for such purpose.

Extensions

PG&E will enforce the following guidelines to ensure equitable treatment:

- 1) PG&E will grant one extension of twenty (20) Business Days for the developer to submit outstanding elements required to achieve Administrative Data Adequacy and to be assigned a Queue position. If the outstanding elements are not provided within the extension period, the Interconnection Request shall be withdrawn. For more clarification please refer to the section "What is required for Administrative Data Adequacy and to be assigned a Queue position?" above.
- 2) Interconnection Customers will be provided the appropriate Study Agreement or the Small Generator Interconnection Agreement per the timelines specified in the SGIP. Interconnection Customers have thirty (30) Business Days to provide two executed agreements along with appropriate payment. The Interconnection Customer can request one extension of twenty (20) Business Days. If the outstanding elements are not provided within the extension period, the Interconnection Request shall be withdrawn.

Do I qualify for Fast Track Procedure?

Section 2.1 from Attachment E of PG&E's Wholesale Distribution Tariff

2.1 Applicability

The Fast Track Process is available to an Interconnection Customer proposing to interconnect its Small Generating Facility with the Distribution Provider's Distribution System if the Small Generating Facility is no larger than 2 MW and if the Interconnection Customer's proposed Small Generating Facility meets the codes, standards, and certification requirements of Attachments 3 and 4 of these procedures, or the Distribution Provider has reviewed the design or tested the proposed Small Generating Facility and is satisfied that it is safe to operate.

Please refer to the Screens in Section 2.2.1 of the [FERC SGIP](#) Attachment E for qualifications for the Fast Track Procedure.

Generally speaking, the Fast Track Procedure is best suited for existing facilities with infrastructure currently built and able to accommodate the proposed interconnection without any Distribution Provider upgrades. If the Interconnection Request involves a new service to be installed by PG&E, the Interconnection Request automatically does not qualify for the Fast Track Procedure regardless of Generating Facility size and is subject to the Study Procedure.

Feed in Tariffs

Please refer to the [Feed-In-Tariffs](#) web page for General Information and Frequently Asked Questions.

PG&E's Request for Offer

Please refer to the [Energy Procurement's](#) web page for General Information and Frequently Asked Questions.

Study Process

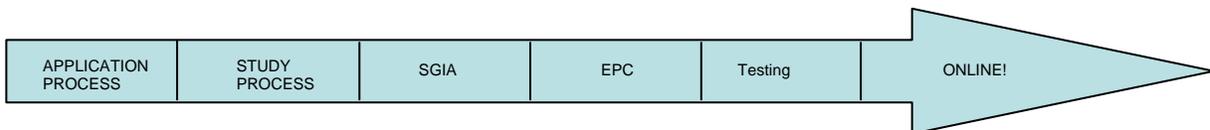
Application and Study Fees

Below is a chart of deposits that PG&E requires for the various studies. These deposits are based on good faith estimates of the actual costs of the various studies. Please note that PG&E's Wholesale Distribution Tariff states that any study fees shall be based on the Distribution Provider's actual costs and will be invoiced after the study is completed and delivered and will include a summary of professional time.

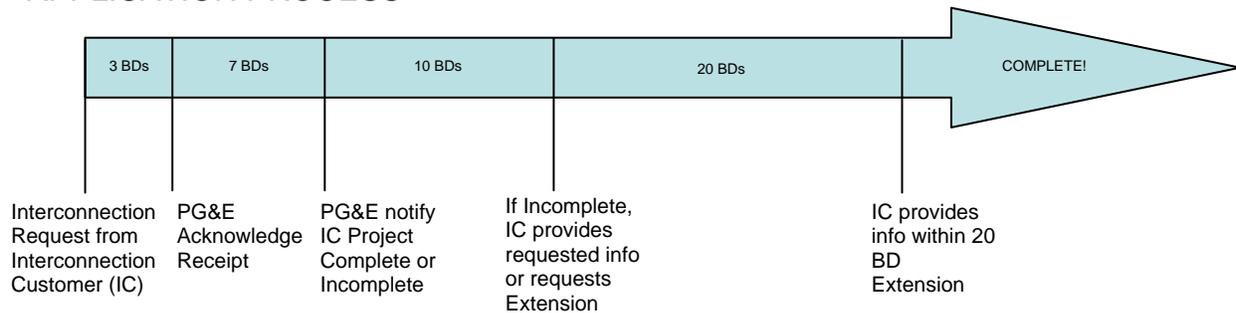
SGIP Study Fees	FastTrack (< 2MW)	Less than 2MW	Between 2 to 5MW	Greater than 5MW
Application Fee	\$500	\$1,000	\$1,000	\$1,000
Initial Review	No Deposit Collected	n/a	n/a	n/a
Supplemental Review	\$1,500	n/a	n/a	n/a
Feasibility Study	n/a	\$1,000	\$1,000	\$1,000
System Impact Study	n/a	\$3,000	\$5,000	\$10,000
Facility Study	n/a	\$10,000	\$20,000	\$100,000

Timelines

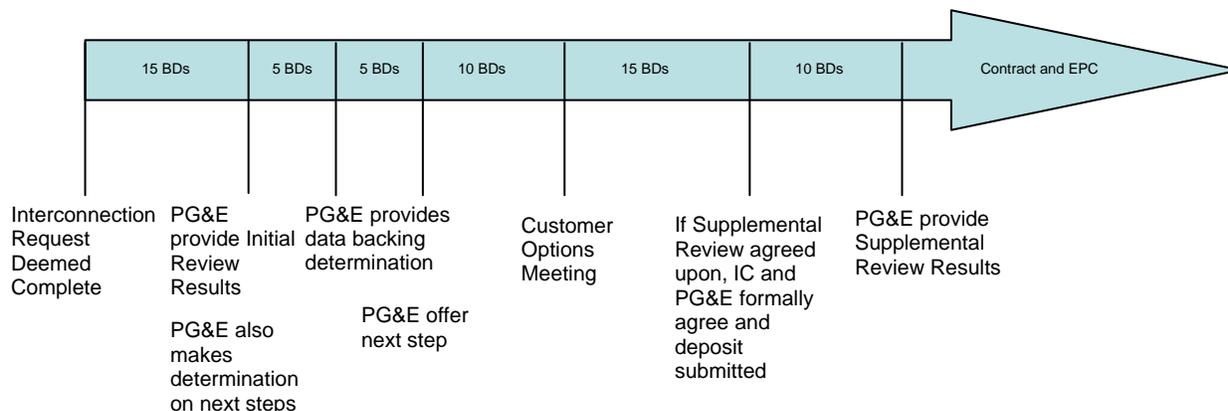
OVERALL SGIP PROCESS



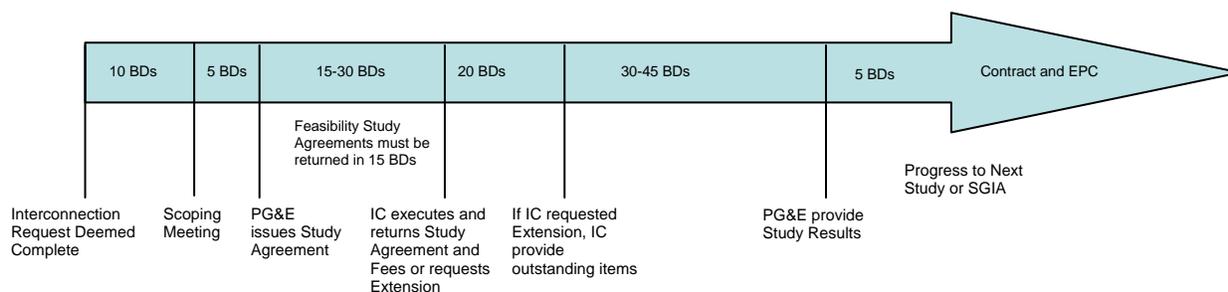
APPLICATION PROCESS



FAST TRACK STUDY PROCESS



STUDY PROCESS



There are three studies in the Study Process. PG&E and the Interconnection Customer will discuss and agree to which studies to conduct and which studies to omit during the scoping meeting. The timelines associated with each study is listed below.

Study	No Upgrades Identified	If Upgrades Identified
Feasibility	30 BDs	30 BDs
System Impact	30 BDs	45 BDs
Facility	30 BDs	45 BDs

Study Updates

Studies are conducted with assumptions established at the beginning of the study process. In the event that these assumptions are changed, study revisions may be required to re-evaluate the Project's impact on the distribution system. The Interconnection Customer would be responsible for paying for any such study revisions. Examples of changes that might prompt such a study are:

- 1) Withdrawal of a higher Queued project.
- 2) Change in interconnection date.
- 3) Change in Interconnection Customer's Queue position.
- 4) Change in interconnection plan.
- 5) Change in Project's generating size. Note that after the scoping meeting, Interconnection Customers can request to decrease the generating size. However a request to increase the generating size would require a new Interconnection Request.

Section 1.4 from Attachment E of PG&E's Wholesale Distribution Tariff

1.4 Modification of the Interconnection Request

Any modification to machine data or equipment configuration or to the interconnection site of the Small Generating Facility not agreed to in writing by the Distribution Provider and the Interconnection Customer may be deemed a withdrawal of the Interconnection Request and may require submission of a new Interconnection Request, unless proper notification of each Party by the other and a reasonable time to cure the problems created by the changes are undertaken.

Resource Adequacy and Reform

Currently, PG&E's Wholesale Distribution Tariff interconnection procedures do not include an option to interconnect under "full capacity" interconnection service. Under the existing "energy only" interconnection service offering, projects are not studied for deliverability, a pre-requisite for qualification as a Resource Adequacy (RA) resource. PG&E, in coordination with Southern California Edison and San Diego Gas and Electric, plans to revise its Wholesale Distribution Tariff interconnection procedures to offer "full capacity" interconnection service. PG&E plans to outreach to relevant stakeholders to develop the tariff adjustments needed to add this new service and target to file changes in the first quarter of 2011.

Definitions

CPUC – California Public Utility Commission
SGIP – Small Generator Interconnection Procedures
FERC – Federal Energy Regulatory Commission
FIT – Feed-In-Tariff

References

[Distribution Interconnection Handbook \(DIH\)](#)

[Feed-In-Tariffs](#)

[Wholesale Generator Interconnections](#)

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