PG&E's WDT Interconnection Reform Principles Document

The purpose of this document is to lay out PG&E's high-level objectives and to discuss the underlying principles behind the interconnection process reform. This document will set the stage for PG&E to amend its Wholesale Distribution Tariff (WDT) Small Generator Interconnection Procedures (SGIP) and Large Generator Interconnection Procedures (LGIP).

Objectives for Interconnection Reform

- Allow all interconnection customers to qualify for supplying capacity as well as energy if they choose
- Provide options and solutions that meet needs of interconnection customers, including alternative processes outside cluster studies for qualifying requests
- Ensure greater predictability, accuracy, and fairness in cost allocation for upgrades
- Preserve or improve upon existing timelines where possible
- Ensure FERC compliance
- Eliminate differences and confusion between Small and Large generators

Schedule for Stakeholder Engagement

Issuance of Reform Principles Document to stakeholders	Dec 8
In-person stakeholder meeting in San Ramon to discuss Reform Principles document and stakeholder concerns	Dec 13
Stakeholder Comments due on Reform Principles Document and feedback from in-person stakeholder meeting	Dec 22
Post proposed draft Tariff language	Jan 7
Stakeholder conference call	Jan 14
Comments due on proposed draft Tariff language	Jan 20
Submission of tariff amendment to FERC	Jan 31

Overview of the Proposal

- **Cluster Process** – A request to interconnect a generating facility of any size that does not qualify for the independent study process, the fast track process, or the 10 kW Inverter Process will be studied in the annual cluster. Although there will only be one annual cluster study, there will be two opportunities during the year for an interconnection customer to submit an application and have a scoping meeting.

- **Independent Study Process (ISP)** – We propose that the GIP would include an opportunity for projects meeting certain criteria to be studied independently of the cluster study process. During both windows: 1) the annual cluster window and 2) the "scoping meeting" window, PG&E will screen requests for qualification for the ISP.

- **Fast Track Process**- A generating facility no larger than 2MW will continue to have the option to be evaluated under the existing Fast Track process, which is proposed to

be retained in the GIP with minor modifications. PG&E proposes to retain the current timelines for existing facilities / repowering projects, but extend the fast track timeline for new facilities projects.

- **10 kW Inverter Process** - The procedure for evaluating an Interconnection Request for a certified inverter-based Small Generating Facility no larger than 10 kW that uses the section 2 screens. The application process uses an all-in-one document that includes a simplified Interconnection Request, simplified procedures, and a brief set of terms and conditions.

The Need for Reform

The current WDT interconnection process and serial structure is not aligned to properly handle large volumes of interconnection requests to PG&E's distribution system. As of the date of this document, PG&E is actively processing over 150 interconnection requests from generators proposing to interconnect to PG&E's distribution system and over 170 interconnection requests proposing to interconnect to PG&E's transmission system.

- The large volume and uncoordinated submission of interconnection requests creates challenges for PG&E to conduct valid interconnection studies under a serial study process that is consistent with existing WDT timeframes.

- Projects connecting to the distribution system can have similar impacts to projects connecting to the transmission system. In addition, projects from either transmission or distribution can have impacts on both transmission and distribution systems. It is thus important that all projects are studied in a coordinated fashion regardless of size and interconnection voltage.

- The interdependency between separate serial WDT procedures and the CAISO's process means that today the only way to appropriately evaluate the collective impacts is to ensure that all projects are accounted for at the beginning of any study, whether that study is serial or cluster.

- The validity of any study whether serial or cluster is significantly impacted by the addition or withdrawal of projects. For this reason, the current requirements (timing and deposits) to enter the procedures should be changed.

- The structure of the serial process imposes financial burden of upgrades to the sole interconnection customer whose generation surpasses the capacity of the distribution system.

These factors taken together can lead to delays in finalizing interconnection agreements and uncertainty for generation developers as to their financial responsibility for network upgrades, distribution upgrades, and interconnection facilities.

Key Reform Principles

PG&E believes that in order for the reformed WDT interconnection procedures to meet the objectives above, it should include the following key elements:

Offer a "Full Capacity" Interconnection Product

- Provides for inclusion in the CAISO's deliverability assessment for all sizes of generation, which was not available for generation interconnecting at PG&E's distribution system prior to this reform effort.

Fair and Predictable Cost Allocation

- Allocates fairly the cost of collective upgrades to all contributing generation in a study group, thereby eliminating the "he who triggers first, pays" approach when it comes to determining which generators trigger which upgrades.

- Fairly increases the requirements for obtaining (via increased, upfront study deposits) and maintaining a queue position (via Interconnection Financial Security) in the interconnection process which allows tenable projects to move forward into Phase II.

- Study deposit amounts between the CAISO and WDT should be identical or comparable to avoid encouraging generation developers who might otherwise prefer interconnection to the CAISO grid to interconnect to PG&E's distribution system under the WDT for the sole purpose of avoiding higher financial commitments found under the CAISO tariff.

Alternatives to the Cluster Study

- Provides a methodology for certain (e.g., < 2MW) interconnection requests that have no material network impacts to bypass the majority of the study process and go directly to an Interconnection Agreement (e.g., "fast track"). There will be no adoption of the cluster window structure. Interconnection Customers can submit interconnection requests that qualify for the fast track at any time.

- Provides a methodology for projects that have been deemed electrically independent and could be processed similar to the existing serial process. This independent study process will adopt the cluster start window but will be completed quicker than the cluster process. Further, PG&E is contemplating a second open window that would be used to identify more projects that could qualify for independent study.

- Provides regularly updated, general information on the state of the distribution system prior to ICs submitting interconnection requests. Similarly provides for pre-application exchange of information to assist ICs in the application process. Certain limits will apply.

Comprehensiveness

- A comprehensive process that evaluates all generation for collective impacts to the grid, regardless of size.

- Appropriately evaluates all impacts on the distribution and transmission systems caused by interconnections to both the distribution and transmission system.

Timing and Streamlining

- Realistic study timelines that have a high probability of successfully being met, and with set starting and end points to allow all parties to plan accordingly.

- Grouping of interconnection requests that are electrically related for a coordinated review of all interconnections and their associated impacts on the transmission and distribution systems. In addition, this approach will allow for a more coordination holistic planning review of the necessary facilities that are needed to reliably and cost effectively connects new generation. PG&E's experience thus far with the clustering process under the reformed LGIP corroborates the benefits of clustering/group studies.

- Eliminates the wasteful and time-consuming process of requiring restudies when earlier queued generation falls out of the study process.

- Provides an early look (Phase I study, as proposed in the CAISO SGIP reforms, within approximately six months of the cluster window closing) at an IC's likely financial responsibility for interconnection facilities, distribution and network upgrades, with the ability to withdraw at that time without material financial penalty if the project is untenable.

- Eliminates unnecessary studies, and uses other methods to streamline the performance of studies and cost estimation, such as using unit costs (where applicable).

- Both the "early look" and financial security reduce "queue hogging" by untenable projects that consume valuable time and resources.

- Certain milestone dates, such as the opening and closing of cluster windows, study timelines, and financial security posting dates, must be identical or comparable between the CAISO tariff and the WDT. When the goal is to perform collective studies to evaluate collective impacts, the dates should be identical; otherwise, PG&E would be creating an unlevel playing field. There are other good reasons to have the identical timelines, such as for resource planning and administrative logistics.

Conforming with FERC Orders

- A process that is not unduly discriminatory, preserves reliability of the transmission and distribution systems, and increases the competitive energy supply to wholesale energy markets (Order 2003).

- A process that FERC will approve as "consistent with or superior to" the current pro forma Small Generation Interconnection Procedures.

An Analysis of the Current Queue

While PG&E does not propose to upend the current queue, in order to be instructive, PG&E analyzed its current queue to see if all projects were to submit requests under a cluster window today, how many would qualify for the Fast Track or ISP process. The analysis is summarized:

Summary for Distribution Interconnection Requests (as of Oct 2010):
168 Total Interconnection Projects
127 Active Projects and **41** Withdrawn Projects

84 projects would likely be in a cluster. (36 Substations with more than one (1) Interconnection Request)
28 Substations currently have more than one (1) Active Interconnection Request.

Other Stats:
30% of projects are in Fresno Division
25% of projects are in Kern Division
20% of projects are in Peninsula Division

Historical Stats:
Note these are historical stats and may be reflect future studies.
Average PG&E Commitment LGIP Cluster Vs Serial (**110 Hours vs. 170 Hours**)
Average Study Costs LGIP Cluster Vs Serial (**$25,000 vs. $35,000**)

Conclusion and Next Steps

PG&E looks forward to working with its stakeholders throughout this reform process. PG&E encourages stakeholders to consider these Reform Principles prior to the in-person meeting.

An email box is set to receive input from stakeholders during the stakeholder process. The email address is gen@PG&E.com. Please note in the subject line WDT Reform.

Questions regarding your individual interconnection request should continue to be addressed with your assigned PG&E Generation Interconnection Services project manager.

Questions regarding this stakeholder process should be addressed to Redacted
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