

Memorandum

To: ISO Governing Board
From: Armando Perez, Vice-President, Planning and Infrastructure Development
Dennis Peters, Manager, External Affairs
Date: March 18, 2008
Re: **Briefing on Generation Interconnection Process Reform Initiative**

This memorandum does not require Board action.

The purpose of this memorandum is to provide the Board with an update on the CAISO's ongoing Generation Interconnection Process Reform (GIPR) initiative. The GIPR is not currently a decisional item, but it is anticipated that Management will seek GIPR approval at the May 2008 Board meeting. Specifically, the update will briefly address (1) the current interconnection queue and its problems; (2) the stakeholder and development schedule; (3) the goals of the GIPR, and (4) a summary of salient GIPR elements and areas of particular interest.

1. Background

The foundation of the CAISO's current generation interconnection process was established by FERC in Order No. 2003 and its progeny. The Order No. 2003 interconnection procedures used by the CAISO and other transmission providers across the country have been successful in assuring open transmission access for new generation resources. However, several factors, largely unanticipated at the time of Order No. 2003's adoption, most notably the proliferation of interconnection requests for renewable generation, have imposed significant challenges to the efficiency of the present interconnection study approach. For example, the CAISO currently has 188 active interconnection requests totaling 62,608 MW for a system with a historic peak of 50,270 MW. Of these, 42,526 MW are associated with renewable resources. The large number of requests and high level of capacity in the interconnection queue have overwhelmed available resources, led to delays and frustration with the study process, and exposed, or reinforced, fundamental deficiencies in the current serial or "first-in, first-out" study approach. Other ISOs/RTOs with significant renewable generation potential are experiencing similar burdens on their interconnection processes.

FERC has acknowledged the existence of challenges to current interconnection practices and held a technical conference on December 11, 2007. The CAISO participated in the technical conference and identified low barriers to entry and inadequate progress milestones as material, underlying causes to the unrealistically high level of projects that populate the current queue. The CAISO further noted that when a queue is encumbered by such a large number of projects that may lack commercial viability, the serial study process suffers significant delays and uncertainties. The

delays and uncertainties arise because of the general interdependence or incremental nature of each project's serial interconnection study. Under the current process, a project's system impacts and transmission upgrade requirements build from those identified for projects lower in the queue. Thus, when a project lower in the queue drops out, all projects with a higher queue position must generally be restudied, which takes time and frequently changes the scope and cost of transmission upgrades assigned to the restudied project. As noted, the frequency of restudies leads to long processing time for individual projects and to changing, and therefore uncertain, potential cost exposure for project developers.

In response to the concerns raised by the CAISO and others at the technical conference, FERC encouraged the CAISO to engage in a stakeholder process to evaluate possible interconnection reforms for a potential late spring filing with FERC. The CAISO has complied with FERC's directive by commencing the GIPR.

2. Goals of GIPR

Through collaboration with the California Public Utilities Commission (CPUC), Participating Transmission Owners (PTOs), and members of the generation community, several common, but not exhaustive, objectives for the GIPR have been identified. These include:

- Clear the existing backlog of interconnection requests
- Develop procedures and requirements that lead to study outcomes that are more realistic and ensure a more efficient interconnection of resources that match system needs
- Provide Interconnection Customers with reasonable cost and timing certainty
- Reduce or eliminate the need for restudies
- Create greater certainty in the timing of study outcomes
- Better integrate transmission planning with the interconnection process
- Allow for the integration of state efforts to identify transmission needs for competitive renewable energy zones

3. Schedule for GIPR Stakeholder Process

In order to meet the compressed schedule expectations of FERC, the CAISO has engaged in an expedited and intensive stakeholder process to develop the GIPR. The schedule for stakeholder activities and approval of GIPR are as follows:

Date	Activity
January 18, 2008	CAISO posted Issues Identification Paper
January 25, 2008	First stakeholder meeting held
January 31, 2008	Stakeholder comments received
February 12, 2008	CAISO posted Draft Proposal
February 19, 2008	Second stakeholder meeting
February 26, 2008	Stakeholder comments received
March 2008	Weekly conference calls with stakeholders to address policy items
March 2008	Weekly conference calls with PTOs to address implementation details, including roles and responsibilities for performing specific study elements
March 12, 2008	CAISO to posed 2 nd Draft Proposal

March 26, 2008	ISO Governing Board informational presentation
Mid April	CAISO to post Final Proposal
Mid April	CAISO to post draft tariff language
Late April, 2008	Third stakeholder meeting
May 21-22, 2008	ISO Governing Board decisional presentation
Late May/early June, 2008	File GIPR with FERC

4. Description of the GIPR

A. General Overview

The GIPR seeks to resolve the flaws impacting generator interconnection in a fairly innovative manner. As noted above, the current interconnection process employs project specific interconnection studies to identify and determine the cost of both Network Upgrades and Interconnection Facilities necessary to interconnect the generating facility to the CAISO Controlled Grid. The GIPR deviates from this paradigm in two fundamental ways. First, the GIPR abandons a project-by-project study approach in favor of studies that group together electrically related proposed generation projects. Second, development and planning of the actual network transmission upgrades necessary to accommodate the interconnection requests are transferred to the CAISO's Transmission Planning Process (TPP). By transferring this responsibility to the TPP, the function of the interconnection studies can be greatly narrowed to focus solely on assigning proxy, yet binding, cost responsibility to interconnection customers. Only interconnection customers that accept this cost responsibility through the posting of specified security may be allowed to execute interconnection agreements (IA) and be considered by the TPP.

These two fundamental changes allow for the achievement of several of the GIPR goals. Specifically, by funneling projects to the TPP, the CAISO has promoted better integration between interconnection processes and transmission planning. It also allows for the simplification and streamlining of interconnection studies, the elimination of restudies, and provides customers with cost certainty with respect to network upgrades. However, a trade-off associated with providing interconnection customers with cost certainty based on estimates of potential network upgrade costs is that Participating TOs may be required to accept a greater financing risk should the cost of the determined upgrades exceed the interconnection study estimates. At the present time, the Participating TOs appear willing to accept this additional risk in return for the efficiencies offered by the GIPR.

The foregoing improvements do not, however, address the largest identified defects in the current interconnection process – the low barriers to entry and ability for customers to keep a queue position with little or no effort toward achievement of meaningful milestones. The GIPR proposes to address these defects by increasing financial commitments and consequences throughout the interconnection process to realize the objective of more realistic outcomes that match system needs. The most significant proposed changes in this regard include:

- Demonstration of proof of site control through the project's proposed commercial operation date plus three years (the additional three years is to allow for unforeseen construction delays). An Interconnection Customer may post a \$250,000 deposit in lieu of site control. The current deposit amount is \$10,000. This amount would be refundable upon proof of site control or if the interconnection customer withdraws prior to signing an IA. The deposit would be forfeited if the project withdraws subsequent to signing an IA. Forfeited funds would be used to reduce PTO transmission revenue requirements recovered through the Transmission Access Charge.
- The interconnection customer must make a \$250,000 deposit to cover costs of processing the request and

conducting studies. Under the current three study process, the aggregate study deposits total \$170,000. Portions of the GIPR study deposits become non-refundable as the process moves forward. However, upon execution of an IA, the deposit (net any administrative and study costs incurred) will be refunded. The purpose of the financial consequences embedded in the GIPR study deposit structure is focus developers on their most promising opportunities.

- Upon execution of the IA, the interconnection customer must post letters of credit for 20% of the total cost responsibility of the estimated cost of Network Upgrades and 20% of the estimated cost of Interconnection Facilities both of which were identified through the single interconnection study. The remaining 80% of the estimated costs must be posted by the conclusion of the TPP. This structure is intended to balance the goal of increasing the financial commitment of developers to encourage realistic participation in the interconnection process with the inherent uncertainties of project development. The staggered posting requirement was incorporated into the GIPR to facilitate the ability of Interconnection Customers to obtain financing as well as to defer such financial commitment until after the Interconnection Customer has a better understanding of the outcome of pending request for offers or other licensing proceedings. Moreover, the CAISO has proposed refunding all or a portion of the posted amounts upon the occurrence of specified events outside the Interconnection Customer's control, such as the denial of a CEC license, rejection of a Power Purchase Agreement by the CPUC, or an unanticipated increase in the cost of Interconnection Facilities based on TPP outcomes.
- To the extent these commitments are insufficient to reduce the studied projects to a reasonable quantity of capacity, the CAISO intends to utilize information produced by the Renewable Energy Transmission Initiative (RETI) to properly limit development assumptions. RETI is a collaborative study effort among California stakeholders, including the CAISO, that will identify and quantify the development potential of "competitive renewable energy zones." The purpose of using the RETI information is to ensure that the CAISO's analytical tools will produce results that provide optimal transmission systems, and that the cost outcomes of the interconnection studies better reflect the size of the network upgrades likely to be necessary to access the developable quantity of capacity in particular renewable energy regions.

B. Other Issue Of Interest – Clearing the Existing Queue

The GIPR must not only enhance the efficiency of the CAISO's interconnection process for future interconnection requests, it must also address the existing queue backlog. The GIPR contemplates doing so by generally applying the going forward rules to the majority of the existing projects in the queue. As discussed below, the CAISO's intention to allow certain defined projects to proceed under the current interconnection procedures, while requiring the remaining projects to be processed under the GIPR, has engendered some controversy. In this regard, the following discussion is not intended to address potential legal issues, but rather merely to describe the regulatory steps contemplated to implement the GIPR.

In general, there are three tasks associated with clearing the queue prior to the actual filing of the GIPR. These tasks are (1) opening a new "Queue Cluster Window," (2) seeking interim relief from FERC, and (3) filing the GIPR with FERC.

Under the current CAISO Tariff, the CAISO has the authority to open what are called Queue Cluster Windows. A Queue Cluster Window is a period of time. All interconnection requests received during the window may be studied as a group. By opening a Queue Cluster Window the CAISO will effectively define the "existing" queue and thereby allow the CAISO and PTOs to focus during the duration of the window on clearing the existing queue.

The interim FERC filing will seek to accomplish two primary purposes. First, the CAISO recognizes that some interconnection customers are close to completion and should be allowed to proceed through the current process. As such, there is a need to divide current requests into a two groups – a GIPR transitional cluster and a serial group. The serial group includes those allowed to proceed under the current process. The GIPR transitional cluster will subsequently be studied in groups under the GIPR process. At present, the CAISO has proposed a bright-line to divide the two groups - all requests whose original System Impact Study Agreement provided for completion prior to February 1, 2008, would join the serial group. Second, the CAISO would request the ability to suspend further work on all projects in the GIPR transitional cluster until after the CAISO files the comprehensive GIPR filing and FERC acts on that filing. This is intended to allow application of the GIPR rules to the existing GIPR transition group.