

**UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION**

Interconnection Queuing Practices

Docket No. AD08-2-000

**TECHNICAL CONFERENCE  
December 11, 2007**

**COMMENTS  
OF THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**

Presented by  
Laurence G. Chaset, Senior Staff Attorney

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On behalf of the California PUC, I want to thank the Commission for providing us with the opportunity to formally express our views today on the very timely and important topic of interconnection queue management.

California has been one of the small number of states that has been actively involved in FERC's proceedings relating to the interconnection of large generating facilities, both since this issue first became a major concern of the Commission back in 2001, and continuing up to the present. Accordingly, the topic of today's Technical Conference is one that is of compelling interest to our Commission, as well as to the California transmission owners and operators that are subject to the requirements of FERC's Order No. 2003.

Our remarks shall focus on two points: (1) the obstacles we are currently facing in California in attempting to study the large number of potential generators in the interconnection queue of the California Independent System Operator (“CAISO”) and its participating transmission owners (“PTOs”) in a more efficient, rational and timely fashion; and (2) some creative new ideas that the key transmission stakeholders in California, including the CPUC, the CAISO and the jurisdictional utilities, have been working on for several months now toward the goal of alleviating the serious backlog that we have been experiencing in processing our interconnection queue.

*The Obstacles We Currently Face*

As to the first point, I want to convey the message that we in California are absolutely united in our commitment to interconnect new generation facilities -- in particular, facilities relying on renewable resources -- as quickly as this can be achieved. Such interconnection is critical for the achievement of the State’s important energy policy goals, especially our renewable portfolio standard (“RPS”). As you are undoubtedly aware, under current state law, 20% of the energy used by Californians by the end of 2010 is to be provided by renewable resources. Moreover, it is the State’s established policy that 33% of our energy is to be provided by renewable resources by the end of 2020. These very ambitious

renewable energy goals can only be met if large amounts of new renewable generation, primarily in California, but also in neighboring states, can be brought on line and interconnected to the transmission grid.

To put the challenges we face in meeting these aggressive goals into a factual context, the following points should be kept in mind. Aside from California's considerable existing renewable generation, a number of new projects that will come on line in the reasonably near future have already gone through the interconnection process and will have transmission available. However, there are many megawatts of additional renewable generation needed to reach the 20% goal, or even to begin moving us toward meeting the tougher 33% goal. Such developing projects must work their way through an interconnection process that currently faces about 70,000 MW of active interconnection applications on the CAISO-controlled grid. Over half of these MW represent renewable generation, with 45% of THAT being located in two adjacent counties not benefiting from interconnection efficiencies FERC recently approved for the Tehachapi wind area.

However, the current model for processing interconnection applications, which relies on a “first come, first served” serial study approach, is seriously undermining our collaborative efforts to move toward compliance with the State’s 2010 RPS goals, and is seriously impeding the ability of the CAISO and its PTOs

to carry out their existing responsibilities under this Commission's Order No. 2003 in an effective and efficient manner.

I want to briefly mention just two of the serious problems that are caused by the current queuing process. First, under the current rules, there is a highly problematic, disproportionate allocation of the costs of transmission upgrades needed to interconnect new generation to only a handful of the many prospective generators in the queue. Such inequitable cost allocations are typically predicated by nothing more than the fickle finger of queue position. Thus, generator A, who proposes to build a 300 megawatt wind facility, could have to pay, up front and immediately, tens of millions of dollars, or more, to interconnect, whereas the neighboring generator B, who has a lower queue position, will be able to take advantage of the upgrades initially paid for by generator A, and to interconnect for a small fraction of the amount that his competitor will be obligated to fund. It is our experience that such large, up front cost responsibilities represent a major planning and financing hurdle, especially for smaller renewable generators, many of whom do not have deep pockets to rely on.

The second problem derives from the first, namely, generator A, seeing these huge potential costs, can easily and essentially without penalty withdraw from the queue, thereby pushing initial network upgrade costs onto the next

generator down the queue in the same electrical zone. Thus, the current rules encourage perpetual uncertainty, as well as a dysfunctional game of regulatory “tag . . . you’re it” among competing prospective generators, all of whose facilities may ultimately be beneficial and desirable additions to the electric system. This game makes it harder to allocate costs and often triggers expensive, and ultimately unnecessary, restudies if an entity that has been “tagged” decides to withdraw from the queue in order to let some other entity bear the transmission upgrade costs associated with a given queue position, or withdraws for any other reason.

I will leave it to others, later today, to provide more detail about how and why the current queue management practices are seriously problematic, but let me assure you that they are problematic, and that you will hear the same message from both the CAISO and its PTOs. Indeed, the current manner in which the interconnection queue is processed has frustrated generation developers and transmission providers alike, and we firmly believe that it is the single largest existing barrier to bringing more renewable energy on-line in our State.

### ***A Proposed Solution***

The second main point I want to make today is that we in California have been working to develop solutions that, in our view, can substantially remedy the current problems we are having with queue management within the footprint of the

CAISO. Our proposed solution has two components: (a) a “backward-looking” solution to address the current backlog in the queue; and (b) a “forward-looking” solution that would provide an alternative methodology for conducting interconnection studies in the future. Once implemented, this solution would mitigate in the future the kind of problems that we in California have been encountering to date in processing interconnection applications.

### ***The “Backward-Looking” Solution***

Under the “backward-looking” solution, the CAISO and its PTOs would seek authorization to process the current interconnection applications in the queue in a manner that is substantially different from the approach set forth in the current, FERC-approved Large Generator Interconnection Procedures (“LGIP”). It is important to note that a “backward-looking” solution is vital in order to make the forward looking solution viable. If the current queue is not cleaned up in a timely manner, future group studies will be inadequate, and, in fact, too late to solve the problem of the clogged queue.

Under this proposed “backward-looking” solution, the CAISO, in collaboration with its PTOs, will establish a retroactive cluster window that will consist of generators with pending interconnection requests in the existing queue. Those generators in the cluster window will be grouped for interconnection study

based on the geographic location and commonality of electrical impacts. New applications received after the closing of this retroactive cluster window will proceed under the “forward-looking” solution discussed below. It should be emphasized that in conducting these retroactive cluster studies, the CAISO and the PTOs will rely on all currently available tools and measures, as well as on the utilization of additional staffing resources, as needed to meet appropriate deadlines.

The implementation of this “backward-looking” solution will necessitate a commitment on the part of the CAISO and the PTOs to complete all of these clustered group studies within a given time frame (*e.g.*, 6 months to 1 year). The completion (at least through the System Impact Study phase) by the CAISO and the PTOs of all required retroactive group studies in less than a year does not mean that all interconnection customers studied as part of a given group will have to have signed interconnection agreements within that time frame. However, it does mean that the CAISO and the PTOs will have to have completed the required technical studies within that time frame.

We would note that a significant benefit of this proposed “backward-looking” solution is that the outcome of these various retroactive clustered group studies should serve as useful input into the CAISO’s annual transmission planning

process pursuant to FERC Order 890. In addition, each retroactively clustered group shall be used as input to broader planning processes that have been recently initiated in California, including, in particular, the multi-stakeholder Renewable Energy Transmission Initiative (“RETI”), the initial main purpose of which is to identify priority zones for renewable resource development within the next year. The RETI will complement an effective and streamlined interconnection process, as it will provide California with a structured way to develop a “big picture” transmission Plan of Service in coordination with information from the clustered interconnection studies that will be conducted under the proposed “backward-looking” solution. A two-page description of the RETI process is attached to these Comments.

### *The “Forward-Looking” Solution*

Like the proposed “backward-looking” process, the proposed “forward looking” process will also be synchronized both with the transmission planning process that the CAISO and its stakeholders are developing in response to FERC Order No. 890, as well as with the broader, State-initiated RETI process.

Under the proposed “forward-looking” solution, the current process of addressing interconnection requests serially based on queue position would be replaced with an approach based on the use of cluster windows, combined with a



more efficient method for weeding out non-viable projects. Interconnection requests received during each new cluster window will be grouped according to the electrically distinct regions in which they are located and the respective impacts of the various interconnection requests on the overall electrical system. All interconnection requests that fall within a given cluster window will be studied during the period that will begin after that cluster window closes.

In addition to creating of these new cluster windows, we expect to make additional procedural changes to the interconnection process that will be geared to streamlining the study process, while at the same time reducing the number of speculative generation projects that clog the queue and hinder the development of legitimate projects. For example: any entity filing an interconnection request will be required to file specified detailed information and to make substantial cash deposits in order to assure that these entities are serious about proceeding with their projects. Additionally, we envision some modification of the current suspension provisions to make sure that the queue moves forward in an orderly fashion, and that other projects in the cluster are not unduly delayed because of another generator's decision to suspend development. At appropriate points in the process, additional commitments, such as demonstration of site control, will also be required.

New interconnection requests would be submitted to the CAISO for inclusion in the first forward cluster window that will open concurrently with the closing of the retroactive queue cluster window. However, it is important that forward cluster studies cannot begin until the “backward-looking” solution is in place in order to assure that the existing queue and its interconnection process will not compromise the efficiency and fairness of the new cluster window process. Obviously, the details of this “forward-looking” solution will need to be further fleshed out.

In conclusion, we again thank the Commission for this opportunity to address you today on this important issue. Moreover, we are optimistic that you will find that the “backward-looking” and “forward-looking” components of the solution that we in California have been developing, taken together, dramatically alleviate the serious obstacles that we have been encountering in seeking to efficiently and systematically study the large number of interconnection requests that have been filed within the CAISO footprint, and are, accordingly, worthy of your approval.

## ATTACHMENT

### **California Renewable Energy Transmission Initiative**

<http://www.energy.ca.gov/reti/>

The California Renewable Energy Transmission Initiative (RETI) is a statewide planning process that will identify the transmission projects needed to accommodate California's ambitious clean energy goals.

#### **3-Phased Process:**

##### **Phase 1 – Identification and ranking of Competitive Renewable Energy Zones (CREZs) (6-8 months)**

- Assessment of *developable* renewable resources in California and neighboring states for 2008-2020 timeframe
- Identification of CREZs with potential for cost-effective renewable development
- Creation of short-list of top-priority CREZs

##### **Phase 2 – Refinement of CREZ analysis and development of statewide conceptual transmission plan (~8 months)**

- Expand and refine the analysis of priority CREZs, including siting constraints
- Identify potential environmental, jurisdictional, and technological show-stopping issues for transmission and generation siting
- Prepare development resource mix scenarios and model capacity expansion
- Develop conceptual transmission plans for each CREZ in coordination with the California ISO (CAISO) and publicly-owned utilities (POUs);
- Begin examination of cost effectiveness of CREZ development relative to non-renewable/non-wire resources

##### **Phase 3 – Detailed transmission planning for CREZs identified for development (schedule TBD)**

- Perform exhaustive analyses of highest priority CREZ, including generation and transmission scenarios and siting alternatives
- Identify the transmission project sponsor(s) for each CREZ
- Prepare transmission plan(s) of service through existing California ISO and POU transmission planning processes
- Achieve stakeholder consensus on the need for each transmission project, including a determination of need by the CAISO, POU or other relevant planning authority

#### **Structure**

##### **Coordinating Committee: California Public Utilities Commission (CPUC), California Energy Commission, CAISO, POU reps**

- Keeps process on schedule
- Ensures that RETI produces information needed for renewable energy and transmission development policy decisions
- Provides direction on peripheral policy issues when necessary

## ATTACHMENT

### **California Renewable Energy Transmission Initiative**

<http://www.energy.ca.gov/reti/>

**Stakeholder Steering Committee (SSC): Transmission owners/providers, utilities/power purchasers, generators, permitting agencies, landowners, public interest organizations**

- Develops and adopts draft work plans
- Forms working subgroups as necessary to complete scope of work
- Ensures active participation of member organizations

**Plenary Stakeholder Group (PSG): All interested parties, neighboring state entities**

- Consults regularly with SSC, provides input
- Reviews work of SSC, ensures that views represented

### **Schedule**

**Phase 1 – 6-8 months to complete assessment**

- PSG kick-off meeting held September 20; SSC meetings October 29 and December 17
- CPUC hopes to hire consultant by January 2008
- Stakeholder input is crucial throughout:
  - inclusion of accurate, agreed-upon data inputs
  - development of accurate cost forecasts
  - identification of environmental and other siting constraints
  - creation of consistent methodology for describing and ranking CREZs
  - mitigation of concerns up-front to facilitate later project permitting

**Phase 2 – 8 months from completion of Phase 1**

**Phase 3 – TBD**

### **Thorny Issues**

- Market valuation – delivery profile, capacity value– how do we compare wind, solar thermal, geothermal, biomass?
- Concerns of POUs – want access to renewables over lines they help pay for, but want firm transmission rights
- Consideration of projects in the CAISO queue – what's real, what's not?
- Cost allocation and cost recovery