Stakeholder Comments Template
Subject: Remote Resource Interconnection Policy

COMMENTS
OF THE STAFF OF THE
CALIFORNIA PUBLIC UTILITIES COMMISSION

June 15, 2007

The Staff of the California Public Utilities Commission (CPUC Staff) are pleased to provide preliminary comments regarding the California Independent System Operator's (CAISO's) Remote Resource Interconnection Policy (RRIP) anticipated to be implemented via amendments to the CAISO's Open Access Transmission Tariff this coming fall. The CAISO has requested that comments on certain questions be incorporated into the following template. Below, the CAISO-provided questions are set forth in crimson and CPUC Staff's comments are in blue.

Submitted by	Company	Date Submitted
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This template has been created for submission of stakeholder comments on the following topics covered in the June 1 Market Notice regarding Remote Resource Interconnection Policy. Upon completion of this template please submit (in MS Word) to chinman@caiso.com. Submissions are requested by close of business on Friday June 15, 2007.

Please submit your comments to the following questions for each topic in the spaces indicated.

1. What is the minimum percentage of capacity of eligible projects that must be subscribed pursuant to executed Large Generator Interconnection Agreements before construction can commence?

The CAISO's Petition suggests 25-30 percent. FERC cites this level in its Declaratory Order[1] and consequently a lower threshold could be problematic. On the other hand, experience from the Tehachapi and other renewable resource areas indicates reluctance or even inability of some renewable projects, especially those lacking deep balance sheets, to move all the way through the interconnection process to a signed LGIA without significant resolution of uncertainties regarding the transmission plan of service and associated cost allocation. Such uncertainty might

[1] EL07-33-000, April 19, 2007

be of concern for a "trunk line" addressed by the RRIP, since costs of such non-network transmission expansion are ultimately borne by the interconnection customers. Thus, there appears to be a "chicken and egg" situation. How can the go-ahead for a renewable trunk line be conditioned on signed LGIAs when LGIAs may depend on resolution of uncertainties regarding the plan of service and associated cost allocation?

California is in the preliminary stages of developing a statewide renewables transmission planning process that will identify and prioritize renewable resource areas located in the state and near its borders. This effort is intended to lead to the design, permitting and construction of transmission facilities to access high-priority resource areas. Project-specific costs would be capitalized and, in the case of CAISO network upgrades, recovered via the TAC.

Consistent with this approach, the CPUC's Backstop Cost Recovery Decision adopted pursuant to California Public Utilities Code § 399.25 (Decision 06-06-034) provides that pre-construction study and permitting costs for a transmission project may be eligible for retail rate recovery so that, in certain circumstances, the pre-construction costs are recoverable even if future events cause construction to not proceed.

California's evolving paradigm of proactive, staged and coordinated renewable transmission development can be applied to resolve the chicken and egg dilemma regarding the level of generator commitment required to move ahead with a renewable trunk line under the CAISO's RRIP.

Specifically,

1. A fiscally prudent threshold of commitment via signed LGIA as proposed by the CAISO, plus other tangible demonstration of interest (see below) could be required to trigger actual construction.

2. A lesser demonstration of commitment plus resource potential could justify one or more important steps that are "upstream" of construction but "downstream" of feasibility studies, and which usefully reduce uncertainties for generation developers. Such steps might include development or approval of plans of service, and might effectively trigger an open season-type process. Then, sufficient generator commitments such as via the Large Generator Interconnection Procedures (LGIP) or otherwise (perhaps within a certain time frame) would trigger construction.

2. What are the appropriate criteria for demonstrating "additional interest" (i.e., interest more than the requisite minimum percentage of LGIAs) for an eligible project?

"Additional interest" should include making reasonable progress in the Large Generator Interconnection Procedures (LGIP). As noted below in response to question 8, how LGIP progress should be maintained (e.g., milestones and their enforcement) should be evaluated for possible tariff or Business Practice Manual (BPM) changes. "Additional interest" could also be demonstrated via Power Purchase Agreements (PPAs) unless there is clear evidence that a PPA cannot be honored. Other forms of tangible demonstration of interest such as responses to an open season, acquisition of site control, or formal declarations should be considered if there is good reason to believe that LGIP- and PPA-based criteria understate serious interest. Additionally, other credible but more general indications of resource potential, such as CEC or other assessments, should be taken into consideration but should not be counted towards any specific required MW level of "demonstrated interest."

In the decision to construct, both "additional demonstration of interest" such as LGIP progress or PPAs, and more general assessments of resource potential should play some role. However, as noted in the response to Question 1, such considerations should play an even larger role in an earlier decision or step, such as development or approval of a plan of service that helps resolve uncertainty for generation developers without yet committing to construct.

3. What is the minimum percentage of "additional interest" that should be shown for an eligible project before construction can commence?

Aside from new generation having a signed LGIA, "additional demonstration of interest" is important for the decision to construct, and the 25-35 percent of transmission capacity to be added, as suggested by the CAISO, may be reasonable.

However, for an upstream project-specific step prior to commitment to construct, such as but not necessarily limited to development or approval of a plan of service, a lower "demonstration of interest" threshold should be applied, and more general indicators of interest and of resource potential should play a larger role. Furthermore, especially for such an upstream step, it is important to avoid locking in as the sole determinant a specific quantitative test that may fail to address future circumstances. Ultimately, what matters is providing developers with some predictability, while maintaining a high likelihood that the transmission capacity being approved and then constructed will actually be utilized.

4. Do wheel-through customers receive benefits from a Remote Resource Interconnection Facility? Should the costs of a Remote Resource Interconnection Facility be included in wheel-through rates? Why or why not?

Wheel-through customers benefit if they have reasonable opportunity to obtain electric supply from resources that would ultimately use the initially-unsubscribed (initially rolled into the TAC) capacity on a new trunk line. This is analogous to how CAISO member LSEs benefit from such initially unsubscribed transmission capacity. In addition, all buyers of renewable energy benefit

from added trunk line capacity because the added renewable supply potential improves the overall renewable power market for buyers. This benefits all buyers, even those that do not sign contracts with the particular suppliers on a given trunk line. The only wheel-through customers who may not benefit are those not involved with such a market.

TAC payments by wheel-through customers (for unsubscribed trunk line capacity) could be capped for those wheel-through customers shown to receive particularly limited benefits from the new access to remote resources.

5. What are the key elements of and considerations for a transmission planning process for the Remote Resource Interconnection Policy?

Consistent with what a coalition of California parties are current working on, the process should involve an open, collaborative, big picture (not incremental) approach. The process should first assess and prioritize renewable resource areas based upon economics, investment interest and transmission obstacles. The process should also develop and evaluate conceptual plans for accessing renewable resource areas and, where warranted, move towards development and approval a plan of service. The final stages of the process would include construction approval of proposed projects and cost allocation.

The process would start with relatively low-cost, efficient assessments of resource potential and transmission costs/difficulties, at the feasibility study level. While such assessments could and in some instances would likely be done outside of the CAISO, they should be coordinated with the CAISO's planning process. Such initial assessments should involve stakeholders and actual market information, not just academic or research analyses, although the latter are also valuable. If and when specific high priority transmission projects or specific detailed studies are identified, they should then be taken into the statewide planning process.

Not only should the planning process be staged, with feasibility studies and resource area assessments preceding development of actual transmission projects; but additionally, the process should be sufficiently broad in its initial stages. In other words, barring unusual or urgent circumstances[2] there should not be a premature narrowing of focus on a limited transmission concept without adequately assessing and ranking multiple resource areas and transmission options, considering the roles and activities of different market players (e.g., including LADWP, SMUD and IID) and considering the interaction of different transmission projects and resource areas.

6. What principles should be applied and factors considered to ensure that a proposed Remote Resource Interconnection Facility will result in a cost effective and efficient interconnection of resources to the grid?

[2] perhaps such as already having many MW of interconnection requests in a limited geographic area, that are highly advanced in the queue and that also have PPAs.

Cost effective and efficient interconnection of resources would be ensured (or at least maximized) by conducting the type of planning process described in response to Questions 1 and 5, and, most importantly, by integrating the interconnection process (especially clustering) with the transmission planning process. Please refer to the response to Question 8 below. Overall, for an efficient interconnection process it is important (1) to avoid incrementalism, and (2) to provide transparency and predictability. Transparency and predictability are supported by clustering (see response to Question 8) and by generally linking and synchronizing the interconnection process with the planning/expansion process.

7. How should Energy Resource Areas be selected?

Such areas should be selected based on a broad, open, staged, collaborative planning process as summarized in responses to Questions 1, 5 and 6 above. In particular, such areas should be selected based on realistic market and other information, regarding both commercial resource potential and transmission obstacles, and utilizing open stakeholder processes. If there are (which there are certain to be) multiple assessments to identify such areas, close coordination and consistency of methods and especially of assumptions and input data should be maintained among the assessments. A range of credible resource areas should be considered, to avoid premature focus or narrowing, and such areas should be evaluated using comparable, replicable methods. Open, nondiscriminatory access to such resource areas should be assumed (in the assessments) and promoted (in subsequent planning and other decisions). The process for selecting areas should be robust (e.g., considering uncertainties and sensitivities) to minimize the likelihood that a foreseeable change in future conditions (e.g., regarding technology advance, policy, market conditions) will seriously invalidate Resource Area selection. On the other hand, selection should not be so incremental or conservative as to eliminate areas having high promise but some risk, since subsequent steps to develop and approve a plan of service and its ultimate construction could still be used to terminate a transmission option with limited sunk costs, where warranted by updated developments and information.

8. Should the CAISO consider tariff changes to its existing authority to "cluster" interconnection studies to enhance its ability to efficiently evaluate locationally-constrained resource areas?

Yes, such tariff changes should be considered. Clustering and the interconnection process (LGIP) in general should be more closely coordinated and synchronized with the transmission planning process. Interconnection requests should be clustered in a manner (e.g., geographic and temporal) that is consistent with the best current information and projections regarding transmission expansion. For example, it is neither efficient nor very transparent to sequentially evaluate interconnection requests assuming incremental changes to the operation and configuration of existing facilities, if the ultimate plan is likely to replace those facilities with a higher-voltage line within a few years. The CAISO's tariff provisions regarding interconnection and clustering thus need to fully reflect a proactive, "big picture" approach.

Where there are high resource concentrations and multiple known or foreseeable generation projects to utilize them, clustering should be the rule, not the provider's optional exception. The

CAISO's tariff should reflect this, and should clarify the conditions under which generators can expect clustering.

Clustering has not been the practice in the past, resulting in a difficult situation particularly in the Tehachapi area. There came to be many interconnection requests, and the complex and problematic interdependencies among these requests and their associated studies arose from specific requirements of the customer-by-customer interconnection process, not necessarily reflective of a rational overall transmission plan of service. Recognizing this situation, the CAISO successfully applied for a FERC waiver of tariff provisions in order to allow retroactive clustering over a temporal window of customer applications extending beyond the standard 180 days.

The CAISO's RRIP and LGIP waiver initiatives should be applauded. Tariff revisions and active clustering will allow more efficient treatment of future interconnection requests and their coordination with rational transmission planning. However, there are thousands of MW of renewable generation in the interconnection queue beyond what is addressed by the LGIP waiver for Tehachapi, even in San Bernardino County alone. For these existing queued requests, how can the LGIP be applied more efficiently and coordinated with the planning process?

Another FERC waiver is a possibility, but besides potentially pushing FERC too far with waivers, such an approach has the disadvantages of being incremental and unpredictable. Rather, the CAISO should consider at least the following two options.

a. Explicit retroactive clustering could be implemented via tariff amendments.

b. If explicit retroactive clustering cannot avoid being discriminatory or otherwise undesirable, then retroactive clustering can be made optional for <u>existing</u> queued customers, at their discretion. However, it can be made clear that if such customers reject inclusion in a cluster, they must be prepared to accept temporary discontinuation of service when the anticipated overall transmission plan of service is implemented, if, for example, this necessitates line tear-downs. These customers might have to be so notified by an appropriate point in their interconnection process. *In other words, the existing applicant is informed of the down-side of seeking interconnection outside of an otherwise applicable cluster, namely, that the customer's interconnection will not be allowed to interfere with the broader transmission plan of service.*

Additionally, the efficiency of the <u>overall</u> LGIP process should be evaluated, particularly regarding the appropriateness of progress milestones and the rigor with which they are applied and observed. Thus, besides the clustering matters discussed above, the CAISO should consider tariff revisions to improve the overall LGIP and its progress milestones.

9. Other

It is foreseeable that to have meaningful deliverability, generators accessed by a trunk line may also require downstream network upgrades. For example, if Tehachapi wind generation was served by a non-network trunk line, there would still need to be network upgrades south of Vincent. Consequently, consideration should be given to how approvals for a trunk line vs. network upgrades should be interrelated, such as regarding the level of "interest" that must be demonstrated. Downstream network upgrades may serve broader purposes than a trunk line, including serving multiple upstream resource areas. Clearly, development of the upstream trunk line and downstream network upgrades should be coordinated in an efficient, predictable and transparent manner, but not necessarily subjected to identical criteria. This apparent paradox needs to be reconciled or accommodated.

Under MRTU, renewable and other generators could deliver over sometimes-congested transmission. Congestion management would then manage access/scheduling, while financial hedging of congestion costs would be provided by Congestion Revenue Rights. However, while the CAISO would have operational control over a trunk line, the interconnecting generators would retain ultimate cost responsibility. This leads to the following issues which should be considered, if not fully resolved, in tariff development to implement the RRIP.

Under MRTU, what is the deliverability standard for interconnection over a trunk line as opposed to network transmission? If generators interconnecting via a trunk line pay their pro rata shares of the line's cost, will the line be designed for simultaneous full deliverability of the maximum output of all of these generators, or could an alternative case-specific deliverability test (e.g., accounting for diversity) be more efficient? Can generators opt (and pay) for less than their full MW capacity of deliverability, such as 70 MW for a 100 MW generator? In the case of wind energy areas in particular, this could still leave such generators able to deliver all available output in most hours. For generators paying pro rata shares of trunk line cost, is curtailment to be applied pro rata based on those cost shares, or shall curtailment be bid-based as under MRTU in general (pro rata only in case of ties)? (How) should the curtailment methodology depend on whether an effective constraint manifests on the trunk line versus the downstream network?