

Comments of the California Wind Energy Association

on CAISO's

"Getting to 33% Renewables Portfolio Standard – Renewable Transmission Projects"

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September 30, 2009

I. Introduction and Summary

CalWEA has long identified the state's lack of transmission infrastructure as the primary reason why California will achieve its 20%-by-2010 renewable energy goal several years late. Therefore, we greatly appreciate the CAISO's initiative to seek the ability to plan more proactively for the state's renewable energy future as the state contemplates a 33%-by 2020 renewable energy goal.

As a strong supporter of the CAISO's objective of proactive renewables transmission planning, and very much wanting to see this objective achieved, our comments are aimed, first, at recognizing the high bar that will be set by the Federal Energy Regulatory Commission (FERC) and the courts in accepting the CAISO's proposal and, second, at taking the necessary steps and fashioning the proposal so that it will survive FERC and court scrutiny.

To briefly summarize our comments:

1. To be meaningful, the initiative must: specify that network upgrade costs will be recoverable through the transmission access charge (TAC); the participating transmission owners (PTOs) must upfront fund those upgrades; the upgrades must not be conditional; and the California Public Utilities Commission (CPUC) should implement companion reforms to its certificate of public convenience and necessity (CPCN) process.
2. In order for pro-active renewables transmission planning to survive challenge:
 - a. The proposal must rest upon highly certain renewable energy development which, in turn, must rest upon the certainty of a state law or final regulations. Unless 33% RPS legislation is adopted this year, this certainty will not exist within the timeframe that the CAISO has set forth for submitting this initiative to the FERC. At best, the certainty would come on July 31, 2010, when the California Air Resources Board may adopt a 33% RPS target pursuant to Governor Schwarzenegger's Executive Order.¹
 - b. Once this certainty is assured, the proposal must be carefully crafted to avoid stranding investment by focusing only on upgrades that will be needed under virtually any 33% scenario. The transmission plan that results should be efficiently integrated

¹ Executive Order S-21-09 by the Governor of the State of California. (Available at <http://gov.ca.gov/executive-order/13269>.) Obtaining certainty by July 31, 2010, would require (a) the CARB to adopt the complex regulations in 10 months, and (b) that no legal challenges to those regulations be filed.

with the CAISO's LGIP Phase II study process and the transmission planning process. The proposal should not upset signed LGIAs or create opportunities for gaming the process.

3. As requested by CAISO staff at the CAISO's September 15 stakeholder meeting, Dr. Dariush Shirmohammadi has refined the CAISO's straw proposal that he described in concept at that meeting. This proposal, which he calls "Proactive Renewables Transmission Planning," meets the objectives described above. It is contained in Section V.

II. To Be Meaningful, the Initiative Must Specify that Upgrade Costs Will Be Recoverable through the TAC, the PTOs Must Upfront Fund the Upgrades, the Upgrades Must Not Be "Conditional," and the CPUC Must Undertake Companion Reforms

Transmission upgrades to meet the requirements of a forward-looking renewable energy goal in California must identify the necessary projects, ensure that they are built expeditiously and in an efficient and least-cost manner, and provide for cost recovery under the TAC.

The CAISO will need to seek tariff changes at FERC to include express authority to consider the state's Renewables Portfolio Standard (RPS) target as an evaluation criterion under the transmission planning process. Harmonizing the goal of proactively building transmission to meet renewable energy targets without burdening ratepayers with unnecessary upgrade costs requires carefully staged expansions. These expansions should be highly likely to be needed under a variety of possible development scenarios for meeting the RPS target which means that such upgrades will likely be limited to those that meet backbone transmission needs.

To be meaningful, this initiative should relieve generation project developers of the heavy burden of financing upgrades to the backbone transmission system. The projects identified by the CAISO should therefore be developed, financed and built by PTOs. Alternatively, if PTOs are unwilling in the first instance to build the identified projects, the CAISO should solicit offers from independent transmission developers and provide a vehicle for such entities to recover their costs through the TAC. This approach means that the CAISO must make final decisions on renewable transmission projects through the annual TPP cycle so that transmission project developers can rely upon these determinations in rate filings with FERC and, ultimately, achieve regulatory certainty that meets the requirements of commercial lenders and investors.

Finally, the effectiveness of this initiative will require the CPUC to implement companion reforms to its CPCN process to speed review. The CPUC should accept the CAISO-identified transmission upgrades as sufficient evidence of need without requiring signed PPAs with LSEs or generation interconnection requests from renewable developers. Otherwise, tariff reforms implemented by the CAISO to accelerate transmission planning for backbone transmission to meet the 33% renewable energy goal will be insufficient for the task at hand.

III. The CAISO Should Take Care to Develop the Initiative so That it Passes FERC's Legal Requirements

Fundamentally, any tariff change must be just and reasonable and not unduly discriminatory within the meaning of the Federal Power Act. As we understand it, FERC considers not only the cost of a project in its ratemaking decisions, but also the prudence of the investment and whether it is used and useful for service to the public. FERC also takes into consideration the entities responsible for incurring the cost when deciding cost allocation questions (*i.e.*, “cost causation”), which also takes into account the benefits that these entities receive from the projects they have “caused” the utility to build. Thus, any forward-looking transmission development plan that seeks to anticipate where renewable generation will be located and how much will be built risks over-shooting the mark and stranding transmission investment. It also risks foundering on cost-causation grounds because it is difficult to defend the proposition that ratepayers have “caused” the construction of a transmission line, or benefited from it, if the anticipated generation never appears.

FERC has managed these risks in the merchant development context by requiring utility shareholders to bear the risk of under-subscription. Alternatively, in the Location-Constrained Resource Interconnection Facility framework in California, FERC approved a tariff mechanism that allowed socialization of the unsubscribed portion of high voltage generator lead lines accompanied by other criteria assuring that ratepayers would be protected from the risk of under-subscription. Similar protections must be included as part of any plan that will proactively develop transmission to serve anticipated renewable generation needs to meet a renewable portfolio standard.

To minimize the risk of running afoul of these well-settled ratemaking principles—*i.e.*, to avoid implementing a tariff that provides less, not more, certainty and therefore fails to promote transmission, the CAISO must plan to focus on those upgrades that will be needed under *virtually any* 33% scenario; *i.e.*, the types of “foundational” upgrades that have been identified in the RETI plan. The policy should not cover upgrades that go beyond those common to most or all 33% build-out scenarios to ensure that all transmission facilities built to meet it will benefit all TAC ratepayers (or any subset of TAC ratepayers who are allocated the costs).

To avoid discrimination in favor of a certain class of generator (renewables), the CAISO tariff must serve the clear needs of, and therefore provide clear benefits to, the TAC ratepayers that the costs are assigned to. Absent a bona fide need for new transmission as evidenced by interconnection requests from renewable generators, or PTO transmission expansion plans to integrate new resources under signed PPAs, it is unlikely that FERC (or the courts) will accept, as a premise for that, anything short of a law (or regulation with the force of law) that provides certainty regarding the need for the upgrades that are covered under the tariff. Thus, the law would need to (a) require the entities who are TAC customers to achieve 33% renewables, and (b) provide some clarity on the amount of the 33% requirement that can be satisfied with resources that are not delivered to California (as RECs do not create specific transmission needs). Any CAISO tariff amendment must, therefore, await the necessary enactment by California.

IV. The Initiative Should Not Upset Signed LGIAs or Create Gaming Opportunities

The CAISO's straw proposal contemplates that transmission developers will propose, through the Request Window for the annual Transmission Planning Process (TPP), transmission projects for evaluation on the 33 percent track, and that such proposals will be evaluated based on various criteria. We find this element of the proposal to be problematic for several reasons.

The objective of this initiative is to identify and start building major transmission projects in advance of generator commitments needed to support them. By the time a PPA or LGIA is executed, construction commencement for any major transmission projects that would serve the generation project is already likely to be late; for example, PPAs rarely have Commercial Operation Dates eight or more years into the future -- the timeframe needed for major transmission planning, permitting, and construction. Thus, establishing thresholds based on the number of or capacity in executed LGIAs and PPAs is not logical.

Transmission projects identified in executed LGIAs should not be subject to any additional CAISO/PTO thresholds or approvals, because LGIAs reflect commitments by the CAISO and PTO to make all reasonable efforts to expedite and build the projects identified. Generation developers rely on these commitments in making their own financing arrangement and in other generation-development efforts; any effort to impair, delay, or restrict transmission-construction commitments in LGIAs will seriously harm these generation projects.

Allowing upgrades from Phase I or Phase II studies to be submitted into the Request Window will create confusion and counterproductive situations as follows:

- *Phase I Studies were conducted only to determine proxy costs* and may not even represent any eventual plan of service to serve new generation projects.
- *Generation developers would likely all submit upgrades from their Phase I Studies into the Request Window* if that enables them to skip the Phase II process or otherwise get special treatment, or if they fear that others will do so and move ahead of them. The CAISO will likely be inundated with these proposals when it already has an orderly process – the LGIP – to address them.
- *Projects identified in Phase II Studies are already addressed in the current process.* The Tariff already requires the CAISO to closely coordinate Phase II Studies with the annual TPP. Moreover, transmission projects identified in these studies for individual generators or clusters would be resolved through the LGIA process that immediately follows. They would either be included in the subsequent LGIAs – and thus, based on the information above, be approved for construction – or would not be included in LGIAs (e.g., if the projects they would serve drop out), in which case they would likely not be needed.
- *Consideration of these projects in this proactive planning effort would raise other difficult issues.* For example, the CAISO was unable to respond to a question at the September 23rd meeting about the impact on required financial-security posting if CAISO accepts an interconnection-related transmission project via a Request Window submittal. Addressing that issue would require re-

opening the issues concerning LGIP procedures in this area, and that likely cannot be adequately addressed (along with all the other issues here) in the timeframe the CAISO has proposed.

For these reasons, we suggest that the CAISO eliminate the Request Window opportunity as part of the renewables transmission planning effort. In the next section, we suggest how the process could be better coordinated with the LGIP Phase II process.

V. Proposed Revision of Straw Proposal: Proactive Renewable Transmission Planning

This proposal refines the CAISO's straw proposal for developing a transmission plan to facilitate achievement of 33% renewables, though it is still presented at a high level. We look forward to feedback and additional ideas from the CAISO and other stakeholders on the proposal.

The goal of the CAISO Proactive Renewable Transmission Plan (PRTP) is to proactively develop a "least regrets" network transmission expansion plan to identify facilities that are needed to deliver sufficient renewable generation resources by 2020 to meet the requirements imposed by a California 33% RPS statute under a variety of credible renewable generation development scenarios. The plan must:

- Seamlessly integrate with the LGIP Phase II study process; and
- Seamlessly integrate with the traditional TPP process intended to identify system needs to address CAISO controlled grid reliability and economic congestion.

1. Proactive Renewable Transmission Plan (PRTP)

The main goal of this exercise is to address the long lead time associated with building the needed transmission infrastructure to deliver renewable resources. These long timelines are normally associated with the transmission permitting process and can be three to four times longer than the time that it takes to develop the renewable resources themselves. By planning core transmission elements in advance, the PRTP will allow engineering, permitting and even construction of transmission infrastructure before the complete picture for renewable resource development is known. We believe that two principles must be followed in developing the PRTP:

- Identify and facilitate transmission that is highly likely to be needed, to avoid stranding of transmission infrastructure; and
- Treat all potential generation projects equitably, to avoid giving an undue preference to a particular group or class of renewable resource developers.

The broad methodology presented below for developing the PRTP meets the aforementioned principles. Inspired by the work of the California Renewable Energy Transmission Initiative (RETI) and adapted for use by the CAISO, this methodology would develop a least regrets transmission plan that would be needed under most, if not all, *credible* renewable resource development scenarios.

The approach for development of PRTP consists of the following broad steps:

- a. Step 1** - development of several (at least five) renewable resource development scenarios (base cases). Each scenario would correspond to one renewable resource development outcome that could meet the state’s “net short” renewable generation figure.² The credible renewable resource development scenarios should be developed as part of stakeholder process such as RETI. However, at least one such scenario should closely match commercial interest showings by renewable resource developers serving the load in the CAISO footprint. All generators that have signed LGIAs along with their identified transmission upgrades would be included in all such scenarios.³ Please see the Appendix for guidelines for establishing the renewable resource development scenarios.
- b. Step 2** – development of a renewable transmission plan for each of the renewable resource development scenarios. This step calls for the CAISO and the PTOs to develop a comprehensive transmission plan for each of the renewable resource development scenarios developed in Step 1. Such a transmission plan should follow these principles:
- i) The level of generation from each renewable resource for each study case (e.g., summer peak condition) should be representative of the expected generation from that resource for that study case (i.e., wind generation should not be assumed at full output when studying the summer peak condition);
 - ii) The existing conventional generation resources in different parts of the state that must be dispatched down to accommodate the added renewable generation should correspond to the renewable net short for that part of the state;
 - iii) Selection of the transmission components of each transmission plan should account for feasibility of permitting such components; and
 - iv) Some downward flexibility should be assumed for renewable resources, consistent with the CAISO’s upcoming market initiative to encourage such flexibility.
- c. Step 3** – development of the least regrets renewable transmission plan. In this step the specific components of the PRTP are selected based on the following criteria:
- i) All transmission components that are common to at least 80% of the renewable transmission plans developed in Step 2, and
 - ii) All 230 kV and higher voltage transmission components that are common to at least 50% of renewable transmission plans developed in Step 2.

² The “net short” is the generation target to be met. The net short takes into account RPS demand, base case resources, and small renewables not directly considered.

³ It is worth considering whether a generator that has signed its LGIA but whose network upgrades are not yet under construction, and where these network upgrades are not needed for other projects that have completed their Phase 2 Study or Facility Study, should be offered the opportunity to revoke its LGIA and have its studies repeated after PRTP is completed as described below. This option could be provided in order to allow the generator to benefit from the network upgrades identified through the PRTP. A generator taking this option would lose all the certainties associated with their signed LGIA and would be eliminated from the base case. Also see the section below on Integration with LGIP Phase II Process.

When determining common upgrades across renewable transmission plans in Step 2, care should be taken to ensure that similar upgrades, which are intended to achieve the same solution across multiple scenarios, are merged into one solution that would solve all such scenarios in a least-cost and efficient manner. For example, if the addition of a 230 kV line is required for the renewable transmission plan for one scenario from Step 2, and the addition of a 500 kV line is needed in a second renewable transmission plan from Step 2 as well as those of the first one, a common upgrade between the two cases should be considered to be the addition of the 500 kV line. Also, the development timelines of common upgrades should correspond to the earliest timeline for such upgrades among the renewable transmission plans of Step 2.

- d. **Step 4** – unconditional approval of the renewable transmission plan. In this step all the least regrets transmission facilities identified in Step 3 will be presented to the CAISO Governing Board for its approval. The approved projects would constitute the CAISO PRTP and would be eligible for direct rate-basing in the CAISO TAC.

The development of a CAISO PRTP is expected to take place sparingly and only when a major renewable resource development initiative is enacted by the state. However, a recalibration of the CAISO PRTP, to the extent possible and needed, would take place on an annual basis based on the new and actual information on the renewable development picture within the state.

2. Integration with LGIP Phase II Process

The LGIP Phase II process is intended to identify the actual transmission upgrades for a cluster of generators that have moved into Phase II studies.⁴ The LGIP Phase II studies can be readily integrated with the CAISO PRTP by including all the components of the PRTP in the Phase II study base case used for the LGIP Phase II studies.

The cost of the additional network transmission projects (beyond those in the PRTP), determined as part of the Phase II cluster studies, would be allocated to the generators in Phase II per the CAISO existing tariff. Those costs would include any costs to accelerate the build-out of PRTP components to an earlier year.

The CAISO and Stakeholders should consider whether (and under what circumstances) interconnection customers in the current Transition Cluster or Serial Queue should have the option of delaying their Phase II studies and Facilities Studies, respectively, until the PRTP is finalized. Given the possible benefits of the outcome for the grid and the generation projects, creating such an option may be very beneficial.

3. Integration with Traditional TPP Process

After the development of the CAISO PRTP, the determination of the transmission system needs due to reliability and economic congestion concerns (that are traditionally performed as part of the annual TPP) could be readily integrated with the PRTP by incorporating the PRTP-approved transmission components in the study base cases used for such studies by the CAISO and the PTOs.

⁴ The generators in the cluster may not necessarily all be fueled by renewable energy.

Appendix: Renewable Generation Development Scenarios

We recommend that the renewable generation development scenarios be developed as part of a stakeholder process, such as RETI. However, for this round, thanks to the recent studies performed on the CAISO Serial Queue and the Transition Cluster and RETI's extensive work, we believe that renewable development scenarios can be readily developed without a significant effort. In the following, we propose some of the principles that we believe should be followed for developing the renewable generation development scenarios:

1. All renewable generation resources that have signed LGIA should be included in all renewable development scenarios.
2. One renewable generation development scenario (and not more than one) should include ALL renewable generators in the CAISO serial queue that are in their Facility Study stage and ALL renewable generators in the CAISO transition cluster that have entered the Phase II studies. Also included here should be ALL the renewable generators in the queue of any WECC balancing authority that are in the Facility Study stage and have an approved PPA with a CAISO member LSE. If, after adding all renewable generators identified above, there is still a need to add renewable generators to meet the 33% RPS net short, the remaining generators should be selected from the pool of generators that are in a queue of any balancing authority in the WECC and have an approved PPA with a CAISO member LSE, starting with those generators that have the earliest date PPAs.
3. The remaining renewable development scenarios should be developed using the RETI in-state and out-of-state development area (CREZ) resources.⁵ For each renewable development scenario, renewable resources would be selected from the RETI-identified CREZs using various rankings of such CREZs⁶ until the 33% RPS net short is met – each scenario would correspond to one method of ranking. For these RETI-based scenarios, only 50% of the resources in a CREZ would be selected (on a pro-rata basis from each technology) before resources are selected from the next lower-ranked CREZ.

⁵ RETI CREZ data reflect the information from other similar West-wide initiatives such as WREZ.

⁶ The CREZ rankings are associated with a high degree of uncertainty, justifying various permutations of these rankings.