



Stakeholder Comment Template

CAISO Integration of Renewable Resources (IRR)

High-Level Program Plan

Organization:

California Wind Energy Association (CalWEA)
American Wind Energy Association (AWEA)

Date Submitted: 4/25/2008

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Industry Segment: Trade Association

Instructions: The CAISO is requesting written comments on the document entitled Integration of Renewable Resources Program (IRR) High-Level Program Plan. This template is offered as a guide for entities to submit comments.

All documents related to the CAISO's IRRP Program Plan are posted on the CAISO Website at the following link: <http://www.caiso.com/1c51/1c51c7946a480.html>

Upon completion of this template please submit (in MS Word) to Jim Blatchford at jblatchford@caiso.com. Submissions are requested by close of business on Friday April 25, 2008.

The CAISO has identified five main program Tracks for organizing the IRRP effort. Please comment whether the identified five tracks are appropriate and capture the scope of primary activities and tasks necessary to successfully integrate renewable resources.

We have no problems with the identified tracks in the High Level Program Plan (HLPP), but we have significant concerns about some of the identified Projects and their scopes – see below. In many cases, these concerns mirror those addressed in CalWEA’s October 12th, 2007 comments (IRR Comments) on the earlier ISO Integration of Renewable Resources Report (IRR Report).

The CAISO has identified thirteen specific projects under the IRRP. Please provide comment on whether the identified fourteen projects are appropriate and whether there are other projects that should be included as part of the IRRP.

Our specific comments on the HLPP Projects, including additional and deletions to the Project scopes, are described below.

Project #3 – Develop Tariff Rules and Agreements Necessary to Address Over-Generation Problem

- **Discriminatory treatment of wind generation during over-generation conditions:** The first scope element, based on an IRR Report recommendation, is implementation of “a procedure where the CAISO Dispatcher can send dispatch notices to wind generation operators and require them to implement pro-rata cuts in their generation production.” CalWEA strongly objected in its IRR Comments to this apparent singling out of wind generation for curtailment notices, and CalWEA and AWEA object to its inclusion in the Project #3 scope here.



As CalWEA said in its IRR Comments, non-discrimination between generation technologies is a key element of the ISO's Over-Generation Protocol (Protocol). All generators with PGAs are obligated to comply with this (and other) ISO protocols, including reduction of generation on a pro rata basis for over-generation conditions when requested by the ISO, with exceptions only for legitimate reasons like verifiable operating constraints (see below).

We support ISO inclusion of a Protocol review as part of this Project, but continued adherence to the non-discrimination principle during this review process, and for any other actions coming out of the IRRP HLPP, is critical.

This Project should also include an examination of market and other incentives to design new units, and modify existing units, to enable lower minimum-load operating levels; this would have the added benefit of enabling a wider range of dispatchability that can help in managing system operations at other times.

- **Over-generation management assumptions:** The ISO should include, in this Project or another appropriate Project, review of operational assumptions used to determine the nature and extent of non-market actions to address over-generation conditions.

In the short stakeholder process for the IRR Report, ISO provided assumptions for minimum levels of imports, hydro and thermal unit operating levels, QF generation, and other resources that CalWEA questioned several times, but the ISO never explained the basis for these assumptions. The assumptions used for operating purposes should be transparent and subject to verification, including any rationale ISO to support choices between "spilling" wind vs. "spilling" hydro.

This part of the effort should include exploring the flexibility afforded by existing QF any other contractual arrangements, including coordinating the curtailment provisions in those agreements with ISO over-generation mitigation needs.

Project #4 – Identify and Develop NERC/WECC and ISO Tariff Rules to Facilitate Interchange Scheduling of Renewable Resources: We strongly support ISO efforts to develop more flexible inter-BAA scheduling practices; however:

- **This goal should apply to all generation sources, not just intermittent/renewable resources.** For example, the ISO has complained many times over the past several years about inflexibility under the current WECC hourly scheduling practices, and in particular the need for special "pre-scheduling," pricing, and other import provisions necessitated by this inflexibility.

In particular, any intra-hour scheduling improvements should also apply to non-renewable/intermittent generation, in particular fast-ramping resources that can help the respective BAAs accommodate their own internal renewable/intermittent resources. This would complement ISO's RA and other efforts to promote increased availability of fast-ramping resources (e.g., in Project #11).

- **Imported renewable power:** We suggest removing from the HLPP statements about whether or not the 20% California RPS goal can be met without imported renewable power. (Statements about this are made in Activities 1 & 3 here (references in the latter to the need for "large amounts" of renewables imports) and also in Project #3, Activity 4.)



As the ISO has stated numerous times, there is more than enough generation in the current ISO interconnection queue to meet the RPS goals, and the extent to which additional generation from outside the state may be needed is not yet clear.

However, we are aware that a few contracts for renewable imports have been signed, and we support west-wide competition to meet RPS targets, in California and elsewhere, with eligible resources competing on a fair basis. Consistent with that, we support removal of barriers to cost-effective imports (and exports) of renewable energy as part of the IRRP. This is a “no-lose” element that does not require unsupported resources-planning statements by ISO.

Project #5 – Identify and Develop Necessary Resource Adequacy Resources to Support Reliable Integration of Renewable Resources:

We support exploration of market and physical aspects of integrating energy storage technology into the ISO grid, but we recommend elimination of the reference to wind energy under Activity. Storage of off-peak energy for on-peak redelivery would be a benefit in managing the grid much more broadly than simple accommodation of wind energy, e.g., optimizing solar and non-renewable energy production and also (on a regional and local basis) in optimizing transmission and distribution facility planning.

Project #9 – Sharing ACE due to intermittent Resources between CAISO and

BPA: We strongly support this activity, as a general matter unrelated to intermittent generation, but we see no reason for limiting this activity to the BPA BAA, especially with the significant renewable potential in the IID area and other western states. In other words, this Project should be entitled something like “Sharing ACE between CAISO and one or more neighboring BAAs.”

Project #11 – Develop Market Products and Mechanisms Necessary to Support Renewable Resource Mechanism:

We support consideration of ramping and Regulation needs in Resource Adequacy Requirement determination. However, the IPPR should not accept the precise ramping and Regulation figures from the IRR Report as a given, e.g., focus the upcoming process only on ways to meet those specific figures.

CalWEA submitted extensive questions about those findings in its IRR Comments that were not addressed on the IRR Report. We hope to gain additional understanding of the ISO methodology through Work Group participation, and we hope that ISO is open to further dialog on this issue.

The ISO should also modify the “Renewable Resource Mechanism” in the title of this Project, as well as the project scope, to consider the broader need for these kinds of tools. For example, the ISO has had tremendous ramping-up and ramping-down problems with “block” forward contracts, particularly in HE7 and HE 22; the ISO should include the need to help manage this and other system conditions in this Project, and be careful about attributing the need for flexible resources and appropriate market mechanisms to particular kinds of resources.



Project #12 – Identify and Develop Necessary Changes to CAISO’s Large Generator Interconnection Process

- **Low Voltage Ride-Through standards:** We are puzzled by the ISO’s continued lack of recognition that its own LGIP standards applicable to wind generation already contain an LVRT requirement, and we thus don’t understand the inclusion of this element in Activity 1.

Moreover, both NERC and WECC are developing LVRT standards for all generators, so there is no need for ISO to duplicate that effort through exploration of yet another set of standards.

- **General interconnection requirements:** Activity 7 should be deleted. The ISO is already addressing the items listed, for all generation (not just renewables), in the ongoing Generator Interconnection Process Reform (GIPR) initiative.

The one exception is the third-to-last item – “Allow greater CAISO control of study timelines with possible penalties for PTOs (others) for missing deadlines.” We are interested in additional information about what the ISO has in mind here.

The CAISO is contemplating creating stakeholder Work Groups to support specific activities that are to be completed under the IRRP. Please indicate the projects for which a Work Group should be created and whether your company would be willing to lead and participate in such a Work Group.

We support a collaborative Work Group approach – perhaps 6 groups, for Project #s 1, 3, 4, 5, 6-10, 11, and 13. We are particularly interested in participating in Work Groups for Projects 3 (over-generation), 11 (market products & mechanisms) and 13 (transmission planning).

The CAISO has identified a number of critical dependencies between the IRRP and other CAISO and State initiatives (e.g., Green House Gas Emissions Reduction, Once Through Cooling Regulations, etc.). Please identify any other critical dependencies.