

INDEPENDENT ENERGY PRODUCERS

April 30, 2010

To: CAISO Staff

RE: Interconnection Requirements--Draft Final Straw Proposal (Dated April 26, 2010)

- I. **General Comments.** In instituting this initiative on Interim Interconnection Requirements, the CAISO's primary goal is to promote the continued reliability of the grid by refining the interconnection requirements for new large generating facilities.¹ IEP supports efforts to improve and ensure reliable operation of the grid, including the necessary controls and equipment to do so. It is appropriate for the CAISO to assess the controls needed to maintain reliable operation of the grid *in advance*, rather than retroactively imposing those requirements. It would be extremely detrimental and costly to generators if the CAISO were to require re-investment in additional control technologies after a plant has already been built.

- II. **Rational Basis for Establishing Appropriate Standards.** While IEP understands and shares the CAISO's concern for implementing the appropriate controls to maintain reliability as more Variable Energy Resources (VERs) are connected to the grid, the CAISO must provide a rational basis to warrant the imposition of these new standards.
 - a. **Order No. 661-A Does Not Justify What the CAISO is Proposing.** The Path that the CAISO is proposing in its Draft Final proposal is not a "logical progression" of Order No. 661-A, as suggested. First, applying the requirements established for wind under Order No. 661-A to all asynchronous VERs, irrespective of a system impact study, is inappropriate. Second, it is not readily apparent that the 2007 RPS Integration Study conducted by the CAISO to evaluate the interconnection/integration impact of thousands of generic renewable resources is functionally equivalent to the plant specific System Impact Study required by FERC.

Under Order No. 661-A, *wind* generators must meet certain requirements, including power factor requirements, *only* if the transmission service provider demonstrates *through a system impact study* that such capability is required of that plant to ensure safety and reliability.² Order No. 661 does not require that this capability *must* be available in all cases; rather that the capability should be required if "needed," as demonstrated through a system impact study, on a case-by case basis.

¹ CAISO Interim Interconnection Requirements for Large Generator Facilities: Draft Final Straw Proposal, page 1.

² FERC Order No. 661-A, Docket No. RM05-4-001, page 25; FERC Ruling Order No. 661, Docket No. RM05-4-000, page 18, 30.

The CAISO, on the other hand, is proposing that (1) Power Factor Requirements (as identified for wind) shall apply to **ALL** asynchronous VERs, and (2) that the Requirements will apply without the need to perform an interconnection study.³ These proposed revisions raise significant concerns.

First, the CAISO is making the faulty assumption that the capability required of wind technology can be equally applied to and fulfilled by other asynchronous technologies. The CAISO states that “extending the existing Order No. 661-A beyond wind facilities to solar Photovoltaic generators, or other asynchronous technologies **is appropriate** given the *similarity* in power converter systems used by such technologies.”⁴ There has been no such demonstration that these *similarities* will indeed provide the capability needed to meet the proposed requirements for ALL asynchronous resources. Furthermore, in applying a one-size fits-all approach, the CAISO is assuming that all technologies within a renewable resource (i.e. solar) have the same operating characteristics and capabilities. Assumptions of this magnitude could lead us down a faulty path. IEP recommends that the CAISO provide evidence that ALL asynchronous technologies have the capability to respond to its new requirements. If the CAISO concludes that all asynchronous technology cannot respond to the proposed requirements it will need to provide appropriate alternatives to the extent necessary.

Second, in establishing that the requirements “will apply without the need to perform an interconnection study,”⁵ the CAISO is disregarding a fundamental principle of Order No. 661-A; namely that a plant maintain the required power factor range **only if** the transmission provider shows **through a system impact study** that such capability is required of that plant to ensure system safety and reliability. In the CAISO’s proposal, the need for a system impact study has been completely eliminated; rather the CAISO is seemingly subverting Order No. 661-A by directly imposing these new requirements on all asynchronous VERs without any evidence of “need”.

In both the Nevada Power case (Docket No. ER10-508-000) and Order No.661-A, FERC emphasizes the necessity of a system impact study to avoid installation of costly equipment that was not ultimately “needed” for grid safety or reliability.⁶ In order to be consistent with prior FERC decisions, IEP urges the CAISO to conduct a system impact study to justify need, rather than impose a default requirement on ALL VERs.

³ CAISO Interim Interconnection Requirements for Large Generator Facilities: Draft Final Straw Proposal, page 6-7.

⁴ CAISO Interim Interconnection Requirements for Large Generator Facilities: Draft Final Straw Proposal, page 6.

⁵ CAISO Interim Interconnection Requirements for Large Generator Facilities: Draft Final Straw Proposal, page 6.

⁶ FERC Order No. 661-A, page 25. Docket No. RM05-4-001 ; FERC Order Conditionally Accepting Interconnection Agreement, page 11. Docket No. ER10-508-000.

III. Specific Comments on Draft Final Straw Proposal

a. Performance Metrics Must be Coordinated with the Proposed Equipment Requirements.

The CAISO has indicated that the “precise manner in which some of these capabilities [i.e. equipment performance metrics] may be used will be left for future phases of this initiative.”⁷ However, mandating certain equipment prior to determining how that equipment will be used is impractical and unnecessary. This would essentially equate to putting the “cart before the horse.” Accordingly, IEP recommends that the CAISO extend the timeline of this initiative to include a stakeholder process for defining the parameters of each of the proposed requirements and how they would be used in CAISO markets and operations.

b. Technology Must Be Available in Timeframe Requested. It is not apparent that the technology that the CAISO is requesting will be available in the timeframe requested. Prior to imposing a change in design protocols, the CAISO should demonstrate that the proposed requirements are realistic. To the extent that the CAISO goes forward with the recommendations provided in the Draft Final Straw Proposal, it should list equipment commercially available at a reasonable cost for meeting each of the proposed standards along with the costs associated with purchasing the equipment. Once this information is made available, generators will have clarity on the precise equipment that is needed to maintain compliance.

If the proposed technology is not available in the time frame suggested, the CAISO should provide an off-ramp to the proposed requirements. In this case, IEP recommends that the CAISO extend the implementation deadline, as proposed, until the technology is actually available from multiple suppliers (the supplier diversity is especially important for competitive pricing reasons because a large number of generators will be seeking to make purchases at the same time). Generators cannot be expected to abide by a requirement that is not commercially available nor technically feasible. Furthermore if the technology is available but cost prohibitive, IEP recommends that the CAISO evaluate whether the cost impacts outweigh the benefits of imposing such a requirement.

c. Certainty of the Existing Tariff is Crucial in RFO Bid/PPA Negotiations.

Many or most of the projects that will be executing LGIAs in the near future have already executed Power Purchase Agreements (PPAs) to support that commitment. The remaining projects likely are in advanced stages of obtaining PPAs (i.e. have already submitted bids, been short-listed, and are completing the negotiation process). Thus their contract prices are already determined. They have no or limited ability to recover any additional costs imposed by the proposal requirements if their LGIA comes after the board adoption of the new standards.

The CAISO presumes that the power purchase agreements “should have taken such potential costs into consideration.”⁸ However, the mere mention 2-3 years ago of the possibility of things happening in the future is not sufficient basis

⁷ CAISO Interim Interconnection Requirements for Large Generator Facilities: Draft Final Straw Proposal, page 2.

⁸ CAISO Interim Interconnection Requirements for Large Generator Facilities: Draft Final Straw Proposal, page 6.

for assuming that RFO Bidders/PPA counterparties will have adjusted their RFO Bids or the agreed-to pricing in the PPA under the presumption of an unspecified, future potential mandate. There must be some certainty with respect to the existing tariff. When negotiating a contract counterparties rely on the existing tariff at the time of the negotiations or they have some rational reason to expect a specific new requirement. The presence of “potential” requirements does not provide counterparties (or RFO bidders) the specificity sufficient to assume they would adjust the negotiation or RFO bids. To avoid undermining the business necessity of maintaining a measure of certainty in the application of the existing CAISO tariff, the CAISO needs to apply these mandatory requirements on a going forward basis only.

- d. Clarity is Needed on the Threshold for “Significant” Financial Commitment.** A number of the requirements exempt VERs that can demonstrate “significant financial commitment” to buy non-compliant equipment by the date of Board approval. The CAISO has failed to explain what the threshold is pertaining to the proposed “significant financial commitment” and how it will be measured. The CAISO has also indicated that projects that suffer delay from the proposed equipment changes may be considered for special treatment; however the CAISO has not yet provided specific details on this suggestion. IEP requests clarity on these issues.
- e. Remove “non-conforming” Condition for Generators that Purchase Non-compliant Equipment.** The CAISO has indicated that “non-exempt facilities that can demonstrate a binding commitment to purchase non-compliant equipments as of the exemption cut-off date ... will be subject to submission of a non-conforming LGIA.”⁹ However, there is no set timeline for FERC approval of non-conforming LGIAs, and thus plants with non-conforming LGIAs cannot proceed with financing and other crucial development activities.

Accordingly, any of these projects subject to a non-conforming LGIA may create a non-financeable situation for VERs and defeat the purpose of bringing renewable generation to the grid. The CAISO should include these types of projects into the “exempt” category from the beginning, rather than treating these resources as having executed non-conforming LGIAs subject to an unknown time schedule.

In addition to the above, because the CAISO is proposing to make the effective date of the new requirements upon CAISO Board approval rather than FERC approval of the proposed tariff changes, generators face some risk that the FERC may treat their LGIA submittals as non-conforming simply because they do not conform to the CAISO tariff as approved by FERC at the time of submittal to FERC.

- f. More Time Is Needed to Appropriately Vet The Issues.** IEP recognizes that the CAISO has restricted the scope of this initiative in order to conclude this process expeditiously; however, IEP insists that the CAISO extend this initiative

⁹ CAISO Interim Interconnection Requirements for Large Generator Facilities: Draft Final Straw Proposal, page 17.



to more thoroughly vet the issues. The CAISO’s concerns regarding the extent to which new renewable development will undermine overall grid reliability seems premature given the progress to date of interconnecting new renewable capacity within the CAISO service territory. Furthermore, the CAISO is studying the integration impacts of a 33% RPS standard, as are the state energy agencies with authorities over such matters (e.g. the CPUC, CEC, and CARB). IEP recommends that the CAISO, at a minimum, await the release and review of these integration studies before moving forward. This approach will ensure that the CAISO and the state energy agencies will be aligned on the level of concern as well as the potential need for solution(s).

New transmission expansions, upgrades, etc. will take a significant time to construct (possibly multiple years). For that reason, we need to get this correct and we have sufficient time to accomplish this without significantly undermining needed transmission investment. Accordingly, the CAISO should be focused on getting the interconnection reform process right from the beginning, rather than risking a repeated process at a later date. To accomplish this end, we recommend that the CAISO plan an additional 30-60 days to (a) address outstanding questions and uncertainties raised by IEP and other parties related to the Draft Final Straw Proposal released by the CAISO and (b) provide the following information for stakeholder to review as part of this process to completion:

1. List the performance metrics that generators will be expected to abide by to maintain compliance with each of the proposed requirements.
2. List the equipment that is commercially available in the United States today that can meet the proposed requirements.
3. List the equipment that is expected to be available in the United States by the implementation deadline of this proposal (that can satisfy the proposed requirements).
4. List the performance metrics for the equipment identified in 2 and 3 above.
5. List the costs associated with installing, purchasing, and operating the new equipment for each of the proposed requirements.

IEP appreciates the opportunity to comment on the CAISO Interim Interconnection Requirements Draft Final Straw Proposal (Dated April 26, 2010).

Respectfully submitted,

	
<p>Steven Kelly Policy Director</p>	<p>Amber Riesenhuber Energy Analyst</p>

Independent Energy Producers Association
1215 K Street, Suite 900
Sacramento, CA 95814
916-448-9499
steven@iepa.com

Independent Energy Producers Association
1215 K Street, Suite 900
Sacramento, CA 95814
916-448-9499
amber@iepa.com