

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

California Independent System Operator Corp.)

Docket No. ER10-1706-000

**MOTION TO INTERVENE AND COMMENTS OF
CALIFORNIA WIND ENERGY ASSOCIATION
AND AMERICAN WIND ENERGY ASSOCIATION**

Pursuant to Rules 212 and 214 of the Commission’s Rules of Practice and Procedure, 18 C.F.R. §§ 385.212 and 385.214, the California Wind Energy Association (“CalWEA”) and American Wind Energy Association (“AWEA”) respectfully request leave to intervene and submit these comments on the California Independent System Operator Corp.’s (“CAISO”) proposed tariff amendments to modify certain interconnection requirements applicable to large generators, and request for waivers.¹

I. PERSONS TO BE SERVED

In addition to the undersigned counsel for CalWEA, persons who should receive communications in connection with this filing include the following:

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¹ *California Independent System Operator Corp.*, “Tariff Amendment to Modify Interconnection Requirements Applicable to Large Generators and Request for Waiver,” Docket No. ER10-1706-000 (filed July 2, 2010) (“Petition”).

II. BACKGROUND

CAISO proposes to modify the terms and conditions of its open access transmission tariff (“OATT”) that set forth the large generator interconnection procedures (“LGIP”). In particular, it proposes to add new requirements that would apply to variable energy resources (“VERs”) to address (1) low voltage ride-through and frequency ride-through capabilities, (2) power factor design and reactive power capabilities, (3) voltage regulation, and (4) generator power management. The purpose of these amendments is to require VERs to commit in their large generator interconnection agreements (“LGIA”) to adopt technologies to enable them to comply with certain operating standards specified in proposed new Appendix H to the LGIA that the CAISO believes are necessary to help maintain the reliability of the transmission grid. CAISO requests waiver of the Commission’s prior notice filing requirements to permit an effective date of July 3, 2010, for the first three changes, and requests an effective date of January 1, 2012 for the amendments concerning generator power management.

CAISO asserts that good cause exists to grant the waiver because it worries that extended service outages and retirements of fossil generating plants coupled with the expected influx of VERs over the next several years will strain grid reliability. It states that these anticipated changes make it essential that VERs have the technical characteristics similar to fossil generation plants, such as reactive power capability and voltage regulation, to support transmission system operations. The CAISO acknowledges that the North American Electric Reliability Corporation (“NERC”) and the Western Electric Coordinating Council (“WECC”) are working on national and regional standards to address the grid reliability impacts of VERC integration, but asserts that it cannot wait for these initiatives to be completed.

The CAISO's timing is heavily influenced by the need to execute LGIAs in the near future with several projects in its current "transition cluster" interconnection study group so that those projects can comply with the construction timelines required to secure financing under the American Reinvestment and Recovery Act ("ARRA"). It states that it will work "to the greatest extent possible" to ensure that its standards operate in conjunction with future NERC and WECC criteria.² The CAISO believes that the technology necessary to comply with its proposed standards is readily available and will not impose an undue cost burden on VERs. CAISO assures the Commission that it will continue to work with stakeholders to assess the operational impacts of VERs integration, possibly leading to additional or modified obligations, particularly in light of guidelines adopted by NERC and WECC.³

CAISO states that only those customers that have interconnection requests in a serial queue or queue cluster window that have been tendered an LGIA for execution after the effective date of its proposed tariff amendments will be required to enter into its proposed new LGIA.⁴ It proposes certain waivers and exemptions from its new requirements. For example, the CAISO will exempt from the new low voltage ride-through requirements those interconnection customers who can demonstrate a binding commitment as of May 18, 2010, to purchase inverters for 30% or more of the facility's maximum generating capacity that are incapable of complying with the revised low voltage ride-through requirements.⁵ The CAISO also says that in the case of projects that have not, as of May 18, 2010, purchased equipment that is compliant with the new power management requirement, it will coordinate with projects to

² Petition at p. 5.

³ *Id.* at p. 6.

⁴ *Id.* at p. 7.

⁵ The CAISO picked May 18 because it was the date the CAISO Board of Governors approved the proposed amendment.

develop requirements consistent with the capability of the control commitment and submit those requirements for Commission approval as a non-conforming LGIA.⁶ The CAISO selected the May 18 exemption date because that was the date when its board of directors authorized the CAISO to make its tariff change filing with the Commission.

Other specific proposed amendments include revisions to the power factor design and operations criteria. CAISO proposes to change the required performance range from 0.95 leading to 0.90 lagging, to a range of 0.95 for both leading and lagging measures, measured at the point of interconnection.⁷ It proposes to make these and other requirements (except for the requirement to provide dynamic voltage support) generically applicable to all VERs without having to show need on a case-by-case basis as the Commission required in Order No. 661.⁸ The CAISO has issued reports on the need for all asynchronous generating resources to have reactive power capability since 2007,⁹ but evidently has not been making case-by-case needs determinations in its serial or cluster interconnection studies and asserts that such “studies are not the appropriate vehicle to make these long-term planning determinations.”¹⁰ In any event, the CAISO believes the cost of the necessary equipment is small in relation to total plant based on its cost comparison survey of vendors on a \$/kW basis of certain reactive power equipment options to the total installed cost of solar photovoltaic and wind generation.

CAISO states that its OATT already includes low voltage ride-through capability requirements, but it proposes to clarify them in several respects. First, it proposes to separate the

⁶ *Id.* at pp. 7-8.

⁷ *Id.* at p. 8.

⁸ *Interconnection for Wind Energy*, Order No. 661, FERC Stats. & Regs. ¶ 31,186, *order on reh’g*, Order No. 661-A, ¶ 31,198, at PP 41, 45 (2005). The Commission recently reaffirmed the case-by-case approach in *Nevada Power Co.*, 130 FERC ¶ 61,147 (2010).

⁹ Petition at p. 11.

¹⁰ *Id.* at p. 13.

requirement relating to ride-through of single-phase faults with delayed clearing from the requirements applicable to all normally cleared faults. Second, it proposes to clarify that ride-through of normally cleared three-phase faults includes all types of normally-cleared faults. Third, it proposes to establish criteria to define which circuit breaker clearing times set the “normal” fault clearing time.¹¹ Fourth, the CAISO clarifies the meaning of “remaining on line” to require the continuous connection between the transmission grid and the generator’s facilities. Fifth, it clarifies that the ride-through requirement applies to the generating facility as a whole, and not individual generating units. Finally, CAISO clarifies that ride-through requirements are not applicable to multiple fault events.¹² The CAISO proposes to exempt those interconnection customers who can demonstrate a binding commitment as of May 18, 2010, to purchase inverters for 30% or more of the facility’s maximum generating capacity that are incapable of complying with the low voltage ride-through requirement.¹³

The last major amendment addresses generator power management requirements. These amendments have three components: (1) active power management, (2) ramp rate limits and controls, and (3) frequency response.¹⁴ As noted above, CAISO proposes to make these new requirements effective on January 1, 2012, to give VERs sufficient time to satisfy the requirements, and to conduct a stakeholder process in which the CAISO and the stakeholders

¹¹ *Id.* at p. 20. In particular, the CAISO states that “In order to provide greater up-front clarity as to this range, the ISO is proposing to define the normal clearing time duration for the purpose of application of the ride-through requirements to be the longest normal clearing time (not to exceed nine cycles, or 150 ms) for any three phase fault causing the asynchronous generation facility Point of Interconnection voltage to drop below 0.2 per-unit of nominal.”

¹² *Id.* at pp. 19-21.

¹³ *Id.* at p. 22.

¹⁴ *Id.* at p. 23.

will develop the generator power management requirements more fully.¹⁵ In this regard, the CAISO acknowledges that a number of issues must be resolved before its proposed generator power management requirements can go into effect and, therefore, “plans to resolve them in a stakeholder process that will give stakeholders all the information they need to implement the generator power management requirements.”¹⁶

III. MOTION TO INTERVENE

CalWEA is a non-profit corporation supported by over 25 members of the wind energy industry, including turbine manufacturers, project developers actively involved in developing wind projects to help meet California’s Renewables Portfolio Standard (“RPS”) program, existing project owners, component manufacturers, support contractors, and others. CalWEA seeks to encourage and support the production of electricity through the use of wind generators, and actively represents the interests of its members in various proceedings before regulatory agencies and the CAISO.

AWEA is a national trade association representing a broad range of entities with a common interest in encouraging the development of reliable and environmentally-friendly wind energy resources in the United States. AWEA members include project developers, owners and operators, wind turbine manufacturers and component suppliers, utilities, marketers and financiers, researchers, renewable energy supporters, and energy consumers.

The business interests of CalWEA’s members and AWEA’s members are significantly affected by regulatory policies such as California’s RPS requirements, the cost of, and access to, transmission facilities, and the requirements for interconnecting new generating facilities to the transmission system. As such, the members of CalWEA and AWEA may be

¹⁵ *Id.*

¹⁶ *Id.* at p. 29.

directly affected by the outcome of this proceeding. The interests of CalWEA, AWEA and their members are not adequately represented by any other party. Accordingly, granting CalWEA's and AWEA's timely motion to intervene in this proceeding is in the public interest.

IV. COMMENTS

A. **CAISO's Proposal to Require Interconnecting Generators to Enter Into Agreements Obliging Them to Comply With Power Plant Management Protocols Before The Effective Date of Those Tariff Provisions Violates the Filed Rate Doctrine.**

As noted above, CAISO requests an effective date of January 1, 2012, for the generator power management protocols that it has included in Appendix H to its pro forma LGIA. CAISO's proposal to bind interconnection customers to contractual obligations under tariff provisions that are not in effect violates the filed rate doctrine.

The filed rate doctrine prohibits the Commission from permitting a tariff to take effect earlier than the date requested by the utility.¹⁷ Under the filed rate doctrine, service agreements cannot implement terms and conditions that are inconsistent with the underlying tariff.¹⁸ Indeed, it is well settled that, in the case of an inconsistency between a regulated entity's filed tariff and a provision in the entity's contract with a customer, the tariff trumps the contract.¹⁹ The CAISO's LGIA reflects this elemental principle in Article 3.3, which the Commission accepted because it "agree[d] that a service agreement must be consistent with its governing tariff."²⁰

¹⁷ *Portland General Electric Company*, 98 FERC ¶ 61,050, at p. 61,133 (2002) (citing *Arkansas Louisiana Gas Co. v. Hall*, 453 U.S. 571, 577-78 (1981)).

¹⁸ *Bonneville Power Administration*, 110 FERC ¶ 61,001, at P 39 (2005).

¹⁹ *Maislin Industries, U.S., Inc. v. Primary Steel, Inc.*, 497 U.S. 116, 126-27 (1990).

²⁰ *California Independent System Operator Corp.*, 112 FERC ¶ 61,009, at P 173 (2005). The Commission went on to say that "Although the LGIA is intended to be a service agreement under both the CAISO OATT and the relevant PTO's tariff, we conclude that to further the goal of

Here, under CAISO's filing, the generator power management provisions that it has proposed will not become effective for a year and a half, yet the CAISO proposes to contractually bind interconnection customers to those terms far in advance of the effective date. As such, the CAISO proposes to require interconnecting generators to sign new LGIAs that are inconsistent with the currently effective tariff. This plainly violates the filed rate doctrine.

The CAISO's proposal to exempt projects from compliance with the generation power management protocols if they can demonstrate commitments to purchase certain equipment as of May 18, 2010, also violates the filed rate doctrine. The CAISO's rationale for picking this date is that it is when the CAISO Board authorized its proposed tariff amendments. That decision, however, does not make the amendments effective because they were subject to Commission review and acceptance under the Federal Power Act. Indeed, there is no need for an exemption because the CAISO's proposed amendment will not become effective for another year and a half.

B. The CAISO Recognizes That Generation Power Management Protocols Remain to Be Developed Through Further Stakeholder Processes, Which Makes It Particularly Unreasonable to Bind Interconnection Customers to Tariff Obligations That Are Merely Conceptual.

The interconnection standards the CAISO proposes are required for grid reliability and are, by and large, standards with which wind generators already comply, or with which they readily can comply. That said, we are particularly concerned with CAISO's generator power management proposal because, as acknowledged in its filing, there are a number of unresolved issues that will require further discussions with stakeholders to resolve. CalWEA

standardization, it is appropriate to interpret the LGIA under a single tariff, in this case the CAISO OATT, even though it is also a service agreement under the PTO's tariff." *Id.*

and AWEA look forward to working with the CAISO to develop appropriate standards through the stakeholder processes that CAISO plans to hold.

We are also concerned with the manner in which the CAISO will use its proposed new tool. Unlike fossil generation, which may have extended ramp rates depending on the particular type of generator, wind generation is capable of near instantaneous real power control. There is, however, a considerable opportunity cost from the lost energy production associated with curtailing zero-emission, zero-fuel cost wind output to make use of this capability. The Commission should, therefore, require CAISO to clarify that the generator power management protocol will be used judiciously, and only as a last resort to maintain reliability.

C. The CAISO Must Apply Its Proposed New Protocols In an Even-Handed, Not Unduly Discriminatory Manner.

The CAISO's filing is rightly focused on the need to maintain grid reliability, but improperly seeks to place the burden of these compliance measures solely on wind and solar generation projects in the CAISO's interconnection study queues. Although we recognize the CAISO's point that the majority of the projects and generating capacity in the queues are renewable energy projects, it is evident from the CAISO's filing that a substantial portion are non-renewable (*i.e.*, of 10,400 MW in the serial queue, 2,200 MW are non-renewable). The CAISO's standards should apply in an even-handed, not unduly discriminatory manner to all of these projects, as well as future projects using non-renewable technologies. For example, it would be unreasonable for the CAISO to require new interconnecting wind and solar projects to comply with the new ride-through requirements in the name of reliability without requiring new fossil generating plants to satisfy the same requirements. The Commission should require all new interconnecting generators to comply with the CAISO's proposed new interconnection standards on a not unduly discriminatory basis.

D. The CAISO Should Measure Compliance With the New Interconnection Standards at the High Side of the Step-Up Transformer, Rather Than the Point of Interconnection.

CAISO's proposal to measure compliance with its new interconnection standards at the point of interconnection disadvantages VERs in remote locations with long generator lead lines. For these projects, particularly with generator lead lines over one mile in length, it may not be practical to control the voltage and power factor at the point of interconnection. Instead, they should have the option to establish the point of control at the high side of their generator step-up transformers.

E. The CAISO's Abbreviated Stakeholder Process to Develop Generator Interconnection Requirements Does Not Constitute Good Cause for Waiver of the Commission's Prior Notice Filing Requirements.

As it did in previous filings,²¹ the CAISO once again points to the need for a few generators to obtain ARRA financing as a justification to implement sweeping tariff amendments, and then attempts to use this to claim that good cause exists to waive the Commission's prior notice filing requirements to accept its proposed amendments effective almost immediately.²² Indeed, the CAISO effectively seeks to reach back before its filing to apply certain tariff exemptions on the theory that CAISO Board consideration of the filing somehow validates an earlier effective date for Federal Power Act purposes. The ARRA financing concern is, however, a red herring, because the CAISO itself says that this "may" be only "partly contingent on the existence of an interconnection agreement."²³

²¹ *Calif. Indep. Sys. Operator Corp.*, "Petition for Waiver of Tariff Provisions Regarding Interconnection Financial Security and Request for Ruling Within 45 Days," Docket No. ER10-1656-000 at pp. 3-4 (filed June 30, 2010); *Calif. Indep. Sys. Operator Corp.*, "Revised Transmission Planning Process Proposal," Docket No. ER10-1401-000 at pp. 5-6, 19 (filed June 4, 2010).

²² Petition at p. 4.

²³ *Id.* at p. 5.

The CAISO also seeks to leave the impression that it conducted an extensive stakeholder process as a prelude to developing well-conceived proposed tariff amendments to be filed with the Commission. That is not the case. The process lasted less than three months, with just a few telephonic meetings and limited opportunity to submit written comments under tight timelines following those meetings.²⁴ Thus, the CAISO's filing does not reflect a thorough vetting of issues and concerns as normally occurs as a prelude to major tariff changes.

There was no reason for such a hurried filing schedule, rushed effective date, or trampling of the filed rate doctrine to enforce tariff requirements that the CAISO admits are not ready to be placed into effect, such as the generator power management requirement. This is particularly true considering that the CAISO itself has caused the urgency—if there is any—by waiting till the last minute to address the issues presented in its filing, which it knew about since at least 2007.²⁵ The compressed timeline has forced the CAISO to acknowledge the need for further stakeholder discussions to develop critical implementing standards, which illustrates that its filing was not “ready for prime time.”²⁶ Accordingly, the Commission should not waive the prior notice filing requirement, and should direct the CAISO to conduct further stakeholder proceedings to develop implementing details for its new standards, as necessary, and to file revised tariff sheets to be effective after the Commission has an opportunity to evaluate them.

²⁴ *Id.*, Attachment G.

²⁵ *Id.* at p. 11. It is also worth noting in this regard that the Commission issued Order No. 661 addressing the very same issues raised in the CAISO's filing in 2005.

²⁶ The CAISO's abbreviated stakeholder schedule for a major reliability-based tariff initiative stands in marked contrast to the lengthy and thoughtful stakeholder process conducted by the CAISO in connection with its renewable transmission planning process initiative. Ltr. of 6/4/2010 from A. Ivancovich and S. Atkins to K. Bose, Docket No. ER10-1401-000.

V. **CONCLUSION**

WHEREFORE, for the foregoing reasons, (1) CalWEA and AWEA respectfully move for leave to intervene individually as full parties to this proceeding, and (2) submit the foregoing comments on the CAISO's filing.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document by electronic mail or U.S. mail upon each person designated on the official service list compiled by the Secretary in these proceedings.

Dated at Washington, D.C. this 23rd day of July, 2010.

/s/ Chimera N. Bowen

Chimera N. Bowen