

137 FERC ¶ 61,143
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Jon Wellinghoff, Chairman;
Philip D. Moeller, John R. Norris,
and Cheryl A. LaFleur.

California Independent System Operator
Corporation

Docket Nos. ER10-1706-001
ER10-1706-002

ORDER DENYING REHEARING AND CONDITIONALLY ACCEPTING
COMPLIANCE FILING

(Issued November 17, 2011)

1. On September 30, 2010, the California Independent System Operator Corporation (CAISO) filed, in Docket No. ER10-1706-001, a request for rehearing of an August 31, 2010 Commission order.¹ Additionally, on September 30, 2010, CAISO submitted a compliance filing, Docket No. ER10-1706-002, in response to the August 2010 Order. The August 2010 Order accepted in part and rejected in part certain tariff revisions proposed by CAISO relating to interconnection requirements applicable to large asynchronous generators.² This order denies rehearing and accepts CAISO's compliance filing, subject to a further compliance filing.

I. Background

2. On July 2, 2010, CAISO filed proposed tariff revisions applicable to large asynchronous generators, predominantly wind and solar photovoltaic resources.

¹ *Cal. Indep. Sys. Operator Corp.*, 132 FERC ¶ 61,196 (2010) (August 2010 Order).

² Asynchronous generators, also known as non-synchronous generators, are a type of generator that produces alternating electric current that matches the frequency of an interconnected power system but the mechanical rotor of the generator does not rotate in synchronism with the system frequency. A non-synchronous generator possesses characteristics significantly different than traditional generators and thus responds differently to network disturbances. Large generators have a capacity of more than 20 megawatts (MW).

CAISO's proposed tariff revisions would impose requirements in four specific areas: (1) power factor design and operations criteria;³ (2) voltage regulation and reactive power control requirements;⁴ (3) frequency and low voltage ride-through requirements;⁵ and (4) generator power management.⁶

3. According to CAISO, the proposed tariff revisions were intended to address operational considerations arising from policies that encourage development of renewable resources. CAISO stated that the targets for renewable resources have already led to a dramatic increase in requests to interconnect variable energy resources to the CAISO controlled grid. As a result of the anticipated increase in variable energy resources, CAISO stated that it anticipates eventual displacement of conventional generation with variable energy resources.

4. CAISO argued that the anticipated displacement of conventional resources by variable energy resources will result in the displacement of technical characteristics such as power management and voltage regulation that are either inherent in, or historically required from conventional resources. CAISO asserted that it was based on these considerations that it submitted the proposed tariff revisions that are comparable to the technical characteristics required for conventional generators.

³ CAISO's proposed power factor design and operations criteria would have required all large asynchronous generating facilities to be designed with sufficient net reactive power capability to achieve a specified net reactive power range without exceeding equipment ratings. *See* CAISO July 1, 2010 Transmittal Letter, Docket No. ER10-1706-000 at 8-15.

⁴ CAISO's proposed voltage regulation and reactive power control requirements would have required that all large asynchronous generating facilities employ an automatic system providing both a voltage regulation and a net power factor regulation mode, operating to automatically control the net reactive power to maintain voltage within a specified standard. *See id.* at 15-17.

⁵ Frequency and low voltage ride-through requirements involve a generating facility's ability to stay connected to and synchronized with CAISO's grid during system disturbances resulting in under-frequency, over-frequency low voltage occurrences. *See id.* at 17-23.

⁶ CAISO's proposed tariff revisions to generator power management requirements would have added requirements to address active power management, ramp limits and control and frequency response and specified that CAISO intends to conduct a stakeholder process in order to more fully develop the generator power management requirements. *See id.* at 23-30.

5. The August 2010 Order rejected CAISO's proposed tariff revisions for power factor design and operations criteria, voltage regulation and reactive power control, and generator power management. CAISO's proposed tariff revisions for frequency and low voltage ride-through requirements were conditionally accepted.

II. CAISO's Request for Rehearing

A. Claims that the August 2010 Order does not reflect reasoned decision-making.

6. In its request for rehearing, CAISO argues that the August 2010 Order ignores record evidence and misreads an analytical study presented by CAISO in support of its proposed power factor, voltage regulation and generator power management requirements for asynchronous generating facilities. CAISO argues that the August 2010 Order summarily concludes that, based on the record, CAISO has not supported its proposal as just and reasonable.⁷

7. CAISO states that the August 2010 Order rejected its proposed generator power management capabilities because CAISO failed to describe fully the operational and market circumstances in which it will utilize these requirements. CAISO argues that it explained the circumstances in which the capabilities would assist grid operators. CAISO asserts that it identified system wide over-frequency and local transmission congestion as operational situations in which it may be necessary to reduce output from asynchronous generating facilities.

8. Next, CAISO states that the August 2010 Order's references to its 2007 renewable integration study were selective and ignore the core findings of the 2007 renewable integration study. CAISO states that a core finding of the 2007 renewable integration study was that all new wind generation units must have the reactive power capability to meet a power factor of plus or minus 0.95. According to CAISO, it now faces a much larger volume of wind and solar photovoltaic resources seeking to interconnect to the grid than at the time of the 2007 renewable integration study. As a result, CAISO argues that it is even more pressing that new wind and solar voltaic resources have reactive power capability.

9. Finally, CAISO argues that the August 2010 Order ignores additional analyses that support CAISO's proposed interconnection requirements. CAISO specifically references a recent study that according to CAISO recommends exploring generator power management capabilities for wind and solar to address significant ramping issues under a 33 percent renewable portfolio standard. According to CAISO it met its burden of

⁷ *Id.* at 17

demonstrating that its proposed technical criteria are just and reasonable and the August 2010 Order fails to explain why CAISO's proposal does not meet that standard.

Commission Determination

10. We continue to find that CAISO did not provide adequate evidence to support its assertion that wind and solar photovoltaic generators will displace synchronous generators on CAISO's transmission system in a timeframe and manner that supports the proposed tariff revisions. We note that CAISO's support for displacement was limited to the amount of asynchronous resource capacity in CAISO's interconnection queue, which is approximately 14,000 MW.⁸ CAISO did not provide any analysis regarding potential load growth, projections of conventional synchronous generator retirements or other considerations justifying CAISO's conclusions regarding possible displacement of conventional synchronous generators. Without further analysis, the total amount of asynchronous resource capacity in the generator interconnection queue does not adequately support CAISO's argument that large numbers of synchronous generators will be displaced in the near future.⁹

11. We also disagree with CAISO's assertion that the August 2010 Order is devoid of analysis or factual evidence to support our decision. The August 2010 Order recognized that, pursuant to Order No. 661-A,¹⁰ a process exists by which transmission providers are able to consider the operational implications of integrating large amounts of wind generation in the interconnection process and to impose power factor design and operations criteria related to reactive power where needed.¹¹ The evidence CAISO provided in support of its proposed tariff revisions failed to adequately explain why continuing to rely on findings of need from system impact studies, as established under Order No. 661-A was not an adequate means of addressing CAISO's reactive power needs.¹²

⁸ CAISO July 2, 2010 Transmittal Letter, Docket No. ER10-1706-000 at 5.

⁹ We also note that the California Wind Energy Association's (CalWEA) comments on CAISO's compliance filing are based, in part on the existence of a significant component of non-renewable generation in CAISO's queue. CalWEA Comments at 4.

¹⁰ *Interconnection for Wind Energy*, Order No. 661, FERC Stats. & Regs. ¶ 31,186, *order on reh'g*, Order No. 661-A, FERC Stats. & Regs. ¶ 31,198 (2005).

¹¹ August 2010 Order, 132 FERC ¶ 61,196 at P 46.

¹² *See id.* at n.45.

12. The Commission disagrees with CAISO's assertion that the August 2010 Order "ignores or dismisses the core findings of the 2007 renewable integration study."¹³ CAISO correctly states that the first conclusion of the 2007 renewable integration study is that all new wind generating units must have the capability to meet the WECC requirements of ± 0.95 power factor because the reactive capability is essential for adequate voltage control. However, the Commission neither ignored nor dismissed that conclusion. Rather, in rejecting CAISO's proposed tariff revisions, the Commission reviewed the underlying analysis as presented in the report and found that the study results did not support the study's own conclusion and, therefore, did not support CAISO's request to require that all asynchronous generators have reactive power capability.¹⁴ The Commission's review of the 2007 renewable integration study reveals that neither the dynamic stability study nor any steady-state analysis contained in that report support an argument that static reactive power is needed from all asynchronous generators.¹⁵

13. Contrary to CAISO's statements in its request for rehearing, its 2007 renewable integration study found that CAISO's system performance would only be inadequate under the most pessimistic scenario studied. Under all other scenarios, CAISO's system performance would continue to be adequate without requiring reactive power capability from all new asynchronous generators. The study results do not provide support for CAISO's proposal to modify the process established under Order No. 661-A or the tariff provisions for non-wind resources. We note that neither our rejection of CAISO's request for rehearing nor the August 2010 Order has the effect of modifying the reactive power requirements for non-wind generators, including solar resources.

14. Nevertheless, CAISO's filing in this docket highlights potential issues regarding the need for reactive power capability among newly interconnecting asynchronous generators and raises questions concerning the need and efficacy of continuing the process established for wind resources under Order No. 661-A. Accordingly, we will direct that Staff commence a technical conference to examine whether the Commission should reconsider or modify the reactive power provisions of Order No. 661-A. As part of that technical conference, Staff should examine what evidence could be developed

¹³ CAISO Request for Rehearing at 18.

¹⁴ See August 2010 Order, 132 FERC ¶ 61,196 at P 46.

¹⁵ See, e.g., CAISO 2007 study, entitled "Integration of Renewable Resources" at 26 and 38. Study available at <http://www.caiso.com/1ca5/1ca5a7a026270.pdf> and cited in CAISO July 1, 2010 Transmittal Letter at 11, n.18.

under Order No. 661 to support a request to apply reactive power requirements more broadly than to individual wind generators during the interconnection study process.¹⁶

15. In addition, contrary to CAISO's statements in its request for rehearing, the Commission did not ignore the referenced study that recommends exploring generator power management capabilities for wind and solar resources. Rather the Commission found that CAISO's proposed tariff revisions were premature because they failed to address issues, including (1) the circumstances in which power management capabilities will be triggered, (2) necessary operational or market protocols that will govern the hierarchy of generation reduction, and (3) the market rules that would apply to compensate for generation reduction or to incent reduction in response to price signals.¹⁷ The Commission recognized that as proposed, CAISO's generator power management requirements would not become effective until January 1, 2012 and that CAISO was planning a stakeholder process to address those issues. In addition, the Commission noted CAISO's acknowledgment that further tariff revisions to more fully address market protocols and other issues essential to the implementation of CAISO's proposed generator management requirements are a necessary outcome of the stakeholder process. Accordingly, the Commission rejected CAISO's tariff revisions relating to generator power management requirements as premature and incomplete, but without prejudice to CAISO re-filing tariff revisions following completion of the stakeholder process.¹⁸

B. Claims that Commission approval of NERC's interpretation of voltage and reactive power requirements dictate granting rehearing of the August 2010 Order

16. On September 16, 2010, the Commission issued an order approving the North American Electric Reliability Corporation's (NERC) interpretation of the Commission-approved Voltage and Reactive (VAR) Reliability Standard, designated VAR-002-1.1b.¹⁹ According to CAISO, the August 2010 Order is in conflict with the September 2010 Order and the Commission should grant CAISO's request for rehearing in order to reconcile the two orders.

¹⁶ Notice on the technical conference will be issued at a later date.

¹⁷ August 2010 Order, 132 FERC ¶ 61,196 at P 82-86.

¹⁸ *Id.* P 89.

¹⁹ *North American Electric Reliability Corporation*, 132 FERC ¶ 61,220 (2010) (September 2010 Order).

17. CAISO states that the September 2010 Order approved NERC's interpretation that the requirements of VAR-002.1.1b apply to all generators. According to CAISO, NERC's standard requires generator operators to maintain generator voltage or reactive power as directed by the transmission operator. CAISO goes on to state that the Commission has approved NERC's interpretation and that this requirement applies whether or not a generator is equipped with an automatic voltage regulator. Therefore, CAISO argues that its proposal to require reactive power and voltage support capabilities from all asynchronous generators is consistent with the September 2010 Order.

18. CAISO states that it recognizes that the Commission requires individual wind generating facilities to provide reactive power and voltage support when interconnection system impact studies identify the requirement. However, according to CAISO, its transmittal letter and supporting testimony in this docket explained why reliance on interconnection system impact studies is insufficient to accommodate CAISO's reactive power and voltage support requirements.

19. CAISO argues that because the September 2010 Order provides that all generators must control voltage or reactive power under the NERC reliability standard, unless exempted by the transmission operator, and CAISO's proposed tariff revisions require that all asynchronous generators interconnecting to CAISO be capable of providing reactive power and voltage regulation, CAISO's proposal was consistent with the September 2010 Order. Therefore, the Commission should grant rehearing in order to reconcile the conflict between the Commission's orders.

Commission Determination

20. The Commission finds that the August 2010 Order and the September 2010 Order are not in conflict with each other. CAISO's argument fails to recognize the full text of the September 2010 Order and misstates the NERC requirement. While VAR-002-1.1b does apply to all generators,²⁰ the September 2010 Order required that each generator control voltage or reactive power output as directed by the transmission operator, but only to the extent that such control is "within applicable facility ratings."²¹ CAISO disregards the important condition that the generator must control voltage only to the extent that it is able to do so within its equipment ratings. Therefore, consistent with VAR-002-1.1b and the September 2010 Order, a generator that is without reactive power capability may not be able to contribute to maintaining the transmission operator's requested voltage schedule. The transmission operator's voltage schedule must consider

²⁰ See appendix 2 of http://www.nerc.com/files/VAR-002-1_1b.pdf for NERC's interpretation.

²¹ September 2010 Order, 132 FERC ¶ 61,220 at P 22.

the generator's ability to accommodate the voltage schedule, rather than the transmission operator having unfettered discretion to require a generating facility to contribute reactive power outside of its rating. Neither the September 2010 Order nor VAR-002-1.1b support CAISO's proposal to require automatic voltage regulators for all asynchronous generators. As a result, we deny CAISO's request for rehearing on this issue.

C. Discrimination Claims Regarding Reactive Power and Voltage Support Capabilities

21. In its request for rehearing, CAISO argues that the Commission arbitrarily discriminates against existing conventional generators and future asynchronous generators in the August 2010 Order. According to CAISO, its proposed interconnection requirements were developed to ensure that asynchronous generating facilities will provide a level of support to the electric grid that is roughly comparable with the support that conventional synchronous generators are currently required to provide.²²

22. CAISO argues that in the August 2010 Order the Commission provides no analysis or factual evidence to support its conclusion that asynchronous generators should not have reactive power and voltage support capabilities or why only conventional synchronous generators should shoulder the burden. CAISO notes that the August 2010 Order did refer to Order Nos. 661 and 661-A, in which the Commission determined that reactive power and voltage support can be required from wind generators only after findings that such support is necessary in a generator interconnection system impact study.²³

23. CAISO states that Order Nos. 661 and 661-A required demonstration of need for voltage support from wind generators in a system impact study out of concern that a general requirement might discriminate against wind generators, because of the relatively higher cost of installing the equipment necessary to provide reactive power and voltage support for a wind generator as compared to conventional generators. However, CAISO asserts that its filing in this docket explained that compliance would add very little in additional costs to asynchronous generating facilities. CAISO states that it supported this assertion with prepared testimony and reference to analytical studies and that the Commission did not address the evidence in the August 2010 Order.

24. CAISO argues that the Commission was arbitrary and capricious in the August 2010 Order for having failed to articulate a satisfactory explanation for discriminating against conventional synchronous generators by continuing to require that

²² CAISO Request for Rehearing at 14.

²³ CAISO Request for Rehearing at 15.

all conventional generators provide reactive power and voltage support, while not all asynchronous generators are required to do so, and for having failed to respond to CAISO's specific arguments that CAISO's proposed technical standards are fair and non-discriminatory.

Commission Determination

25. We find that CAISO's request for rehearing ignores Commission precedent and the current status of reactive power and voltage support requirements. In the August 2010 Order, the Commission relied on precedent as contained in Order Nos. 661 and 661-A.²⁴ In order to justify the proposed tariff revisions, CAISO's burden was to demonstrate that its proposed variation from Order No. 661 is just and reasonable and not unduly discriminatory and would accomplish the goals of Order No. 661.²⁵ CAISO's evidence of the cost associated with its proposed tariff revisions would only become relevant after a finding that CAISO had met its burden as described above.

26. CAISO's current tariff provisions regarding power factor design and operations criteria and voltage regulation and reactive power control are consistent with Order No. 661 and have been found by the Commission to be just and reasonable and not unduly discriminatory. Because CAISO's 2007 renewables integration study does not support a finding that it is necessary to require that all asynchronous generators be required to provide reactive power and voltage support, we reject CAISO's argument on rehearing, that the retention of those current requirements constitutes arbitrary discrimination against current synchronous and future asynchronous generators.

III. CAISO's Compliance Filing

27. On September 30, 2010, CAISO submitted a compliance filing in response to the August 2010 Order. In the compliance filing, CAISO noted that the majority of the

²⁴ August 2010 Order, 132 FERC ¶ 61,196 at P 45.

²⁵ See *id.* at n.44 (citing Order No. 2003, *Standardization of Generator Interconnection Agreements and Procedures*, Order No. 2003, FERC Stats. & Regs. ¶ 31,146 at P 822-827 (2003); *order on reh'g*, Order No. 2003-A, FERC Stats. & Regs. ¶ 31,160 at P 759; *order on reh'g*, Order No. 2003-B, FERC Stats. & Regs. ¶ 31,171 (2004); *order on reh'g*, Order No. 2003-C, FERC Stats. & Regs. ¶ 31,190 (2005), *aff'd sub nom. Nat'l Ass'n of Regulatory Util. Comm'rs v. FERC*, 475 F.3d 1277 (D.C. Cir. 2007), *cert. denied*, 522 U.S. 1230 (2008), Order No. 661, FERC Stats. & Regs. ¶ 31,186 at P 107-109).

originally proposed tariff revisions had been included in two new large generator interconnection agreements that would apply to interconnection customers in the serial study group (Appendix BB to CAISO's tariff) and interconnection customers subject to a cluster study group (Appendix CC to CAISO's tariff). By way of compliance with the August 2010 Order, CAISO proposed a number of changes to its proposed tariff Appendices BB and CC.

A. Notice of Filing and Responsive Pleadings

28. Notice of CAISO's compliance filing was published in the *Federal Register*, 75 Fed Reg. 65,314 with protests and interventions due on or before October 25, 2010. CalWEA submitted comments on October 25, 2010. CAISO filed an answer to CalWEA's comments.

B. Issues Raised by CalWEA

1. Low Voltage Ride-Through Requirements

29. CalWEA supports that portion of the CAISO's compliance filing that imposes the new low voltage ride-through requirements on all asynchronous generators, and not only wind generators. However, CalWEA is concerned because CAISO's compliance filing does not impose the new low voltage ride-through requirements on conventional generators.

30. According to CalWEA, there is a substantial amount of generation in CAISO's interconnection queue that is conventional in nature.²⁶ CalWEA argues that CAISO's low voltage ride-through requirements should apply to non-renewable projects currently in CAISO's interconnection queue, as well as future projects using conventional technologies.

31. In addition, CalWEA argues that there is an oversight in CAISO's compliance filing. CalWEA indicates that the first sentence of Appendix H, Section A(i)(1) of CAISO's compliance filing purports to require an asynchronous generating facility to remain online for certain voltage disturbances.²⁷ The affected voltage disturbances are

²⁶ CalWEA Comments at 4, asserting that of 10,400 MW in the serial queue, 2,200 is non-renewable.

²⁷ In its compliance filing CAISO proposes to modify Appendix H, Section A.i to provide an exemption for an asynchronous generating facility if it can demonstrate a binding commitment as of July 3, 2010 to purchase inverters for thirty percent or more of the facility's maximum generating capacity that is incapable of complying with the requirements.

those caused between its point of interconnection and the high voltage terminals of its step up transformer, when the duration is the lesser of the normal three-phase fault clearing time or one-hundred fifty milliseconds, plus any post-fault voltage recovery time. According to CalWEA, CAISO's proposed tariff language is problematic because a single circuit generation tie would be unable to comply with the requirement without disconnecting the generator from the system.²⁸

32. CalWEA notes that the Commission addressed this situation in Order No. 661-A by eliminating the requirement in situations where clearing the fault would effectively disconnect the generator from the system. CalWEA points out that CAISO's initial proposal also included language eliminating the requirement in situations where clearing the fault would effectively disconnect the generator from the system. However, CalWEA states that the provision was dropped from the compliance filing.

33. In addition, according to CalWEA, a similar change should be made to CAISO's Appendix H, Section A(i)(2). CalWEA states that as written, Appendix H, Section A(i)(2) requires an asynchronous generating facility to remain online for certain voltage disturbances. In particular, it applies to voltage disturbances caused by the single-phase fault on the transmission grid or within the asynchronous generating facility between the point of interconnection and the high voltage terminals of its step up transformer, with delayed clearing, plus any post-fault recovery. CalWEA states that this section should also provide an exception for instances in which clearing the fault would effectively disconnect the generator from the system.

2. Power Factor Design (Reactive Power) and Voltage Regulation Requirements

34. CalWEA expresses concern that CAISO seeks to impose a requirement that all asynchronous generators install voltage control equipment. CalWEA states that controlling either the power factor (reactive power) or voltage regulation at the end of a long gen-tie line can be challenging, costly, and perhaps impossible.

35. According to CalWEA, rather than requiring voltage control requirements at the point of interconnection, CAISO should utilize its energy management system, as well as the generators' SCADA capability to deploy power factor control capability of asynchronous generators, where available, as a proxy for voltage control. CalWEA argues that such a system is consistent with the NERC's interpretation of reliability standard VAR-002-1.1b. According to CalWEA, NERC's standard requires that a generator shall maintain either voltage or reactive power as directed by the transmission

²⁸ CalWEA Comments at 5.

operator. CalWEA argues that because the requirement is in the alternative, its proposal is consistent with NERC's requirements.

36. In order to implement its proposed modification, CalWEA proposes a revised formulation of Appendix H, Section A(iii).²⁹ CalWEA's proposed modification to Appendix H, Section A(iii) would direct that an interconnection customer work with CAISO and the participating transmission owner to mutually agree on the dynamic voltage support that it can and should provide, in lieu of the power system stabilizer and automatic voltage regulation. CalWEA argues that CAISO's proposal inappropriately imposes a blanket requirement to provide voltage support, whereas CalWEA's proposal recognizes the flexibility inherent in NERC's interpretation of the reliability standard.

37. Finally, CalWEA argues that the requirement to provide power factor capability should be modified to limit this to the time periods when the generator is generating at least 20 percent of its rated output.

C. CAISO's Answer

38. In its answer to CalWEA's Comments, CAISO agrees that low voltage ride-through requirements should not apply to a single circuit generator when a fault occurs on that circuit and needs to be cleared.³⁰ CAISO states, however, that it did not include specific language as suggested by CalWEA because in CAISO's view the low voltage ride-through requirement cannot physically be applied to a single circuit generating facility, if clearing a single fault effectively disconnects the generator from the remainder of the electric system. Nevertheless, CAISO states that it is willing to make the changes recommended by CalWEA on further compliance, if the Commission so directs.³¹

39. CAISO argues that the Commission should find that the remaining issues raised by CalWEA's comments are beyond the scope of the compliance directives.

²⁹ In its compliance filing CAISO proposes to modify Appendix H, Section A.iii to delete proposed tariff language relating to power factor design and operating requirements and include existing tariff language relating to power factor design from CAISO's currently approved large generator interconnection requirements for large generators.

³⁰ CAISO Answer at 2.

³¹ *Id.* at 3.

D. Commission Determination

1. CalWEA's Issues

40. The August 2010 Order accepted CAISO's proposed tariff revisions imposing low voltage ride-through requirements on all asynchronous generators. Our review of CAISO's revised tariff provisions indicates that they comply with these directives. We find that CalWEA's proposal to extend the new low voltage ride-through requirements to include conventional generators is beyond the scope of this proceeding. Similarly, we find CalWEA's proposed revision to change the power factor design and operations criteria set forth in Appendix H, Section A(iii) is beyond the scope of this proceeding. As a result, we accept CAISO's revised tariff provision as being consistent with the Commission's August 2010 Order.

41. CAISO agrees with CalWEA that the tariff revisions in this proceeding are not intended to require that a single circuit asynchronous generating facility remain online during a voltage disturbance where clearing the fault would cause the generator to disconnect from the system. CAISO argues that the result is self evident and that, in CAISO's opinion it is unnecessary to reflect the provision in the language of the tariff. However, CAISO states that it is willing to include language identifying the exception if the Commission so directs. We find that the inclusion of this language is reasonable because it makes clear that not all asynchronous generation should remain online during voltage disturbances.

42. Accordingly, we direct that CAISO make the proposed changes to Appendix H, Sections A(i)(1) and (2) in a compliance filing no later than 30 days from the date of this order.

2. Other Compliance Issues

43. Upon review, the Commission finds that CAISO's compliance filing is incomplete and not consistent with the directives contained in the August 2010 Order. CAISO's compliance filing included revisions to Appendices BB and CC of CAISO's tariff. However, CAISO failed to file revised versions of sections 8.2.3.3 and 25.4 of its tariff.

44. Accordingly, we hereby direct that CAISO submit a filing within 30 days from the date of this order making revisions to section 8.2.3.3 to recognize the elimination of Appendix H section A.iv, Voltage Regulation and Reactive Power Control Requirements, as directed by the Commission in the August 2010 Order.³²

³² See August 2010 Order, 132 FERC ¶ 61,196 at P 54-55, regarding voltage regulation and reactive power control requirements.

45. Similarly, we accept CAISO's proposed tariff revisions to section 25.4 of its tariff, subject to CAISO including in its follow-up compliance filing revised language in section 25.4 to reflect that exemption from CAISO's tariff revisions should apply to any interconnection customer that has been or should have been tendered an LGIA prior to July 3, 2010, pursuant to CAISO's large generator interconnection procedures.³³

46. CAISO's compliance filing also failed to include a revised table of contents for appendices BB and CC. Accordingly, we direct that CAISO include in the compliance filing a revised table of contents for Appendices BB and CC to reflect the deletion of section 9.6.2.2, as directed in the August 2010 Order.³⁴

IV. CAISO's Motion to Lodge

47. On June 15, 2011, CAISO filed a motion to lodge Commission decision in the record of this proceeding. CAISO's motion requests that in reconsidering our rejection of CAISO's active power management proposal, the Commission consider our decision in a recent case involving Southwest Power Pool (SPP).³⁵ According to CAISO, the Southwest Power Pool Decision finds that active power management controls for wind resources interconnecting to SPP are just and reasonable and not unduly discriminatory to ensure the continued reliability in light of the potential operational impact of wind resources. CAISO requests that the Commission consider the rationale supporting that decision in connection with CAISO's request for rehearing.

48. It is not necessary for the Commission to act on CAISO's motion to lodge in order to consider the rationale of our Southwest Power Pool Decision in connection with CAISO's request for rehearing in this docket. Thus we will deny CAISO's motion to lodge, but will note that consideration of related decisions is always an element that enters into the Commission's deliberations.

49. In this instance, the Southwest Power Pool Decision does not support granting CAISO's motion for rehearing. The Southwest Power Pool Decision regarding active power management requirements is distinguishable from CAISO's application in this proceeding. SPP fully addressed the implementation issues associated with its reforms.³⁶ CAISO's proposal, however, remains incomplete, as discussed above and in our

³³ *See id.* P 24.

³⁴ *See id.* P 54-55.

³⁵ *Southwest Power Pool*, 135 FERC ¶ 61,148 (2011) (Southwest Power Pool Decision).

³⁶ *Southwest Power Pool Decision*, 135 FERC ¶ 61,148 at P 8-10

August 2010 Order.³⁷ These concerns were raised by protestors Large-Scale Solar, Lompoc Wind, CalWEA/AWEA, and Sempra,³⁸ and remain unaddressed by CAISO. Indeed, CAISO concedes there are a variety of concerns and issues with their proposal that remain to be addressed at the stakeholder level.³⁹ In light of the concerns raised regarding the utilization and implementation of the CAISO's proposed revisions at both the stakeholder and Commission levels, we find that CAISO's proposal is incomplete due to the remaining implementation issues. Accordingly, we reaffirm our decision to reject CAISO's proposed reforms for generator power management without prejudice to CAISO re-filing those tariff revisions after it conducts the stakeholder process.⁴⁰

The Commission orders:

(A) The Commission denies CAISO's request for rehearing, as discussed in the body of this order.

(B) The Commission accepts CAISO's compliance filing effective July 3, 2010, subject to modification, as discussed in the body of this order.

(C) CAISO is hereby directed to make a compliance filing within 30 days from the date of this order, as discussed in the body of this order.

(D) CAISO's Motion to Lodge is denied, as discussed in the body of this order.

(E) Staff is directed to commence a technical conference as discussed in the body of this order.

By the Commission. Commissioner Spitzer is not participating.

(S E A L)

Kimberly D. Bose,
Secretary.

³⁷ See August 2010 Order, 132 FERC ¶ 61,196 at P 79-87.

³⁸ *Id.* P 79-86.

³⁹ CAISO July 1, 2010 Transmittal Letter, Docket No. ER10-1706-000 at 29.

⁴⁰ August 2010 Order, 132 FERC ¶ 61,196 at P 87-89.

Document Content(s)

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