137 FERC ¶ 61,157
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 No. ER11-4580-000

ORDER ACCEPTING AND SUSPENDING PROPOSED TARIFF REVISIONS SUBJECT TO THE OUTCOME OF A TECHNICAL CONFERENCE AND FURTHER COMMISSION ORDER

(Issued November 25, 2011)

1. On September 21, 2011, the California Independent System Operator Corporation (CAISO) submitted, pursuant to section 205 of the Federal Power Act (FPA)[1] and section 35 of the Commission's regulations,[2] proposed revisions to its tariff[3] to eliminate convergence bidding at intertie scheduling points.[4] We find that CAISO has not demonstrated that its proposal is just and reasonable and that issues related to convergence bidding at intertie locations would benefit from further examination by Commission staff and the parties to this proceeding. Accordingly, we accept the proposed tariff revisions and suspend them for a nominal period to become effective on November 28, 2011, as requested. We also direct Commission staff to convene a technical conference to explore, among other things, potential issues and benefits attributed to convergence bidding at interties, and the associated costs and potential solutions for any such issues at greater length. The Commission's acceptance of the proposed tariff revisions is subject to the outcome of the technical conference and further order by the Commission.

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[1] 16 U.S.C. § 824d (2006).

[2] 18 C.F.R. § 35 (2011).

[3] California Independent System Operator Corporation, FERC Electric Tariff, Fifth Replacement (CAISO Tariff).

[4] CAISO September 21, 2011 Proposed Tariff Amendment Eliminating Convergence Bidding (CAISO Filing).

## I. Background

2. On February 1, 2011, CAISO implemented convergence bidding, or virtual bidding, in the CAISO market. Convergence bidding is a market feature that involves the submission of bids to buy or sell electric energy in the day-ahead market, without any obligation to consume or provide electricity. Convergence bids that clear in the day-ahead market and settle at day-ahead prices are then automatically liquidated with the opposite buy or sell position at either hour-ahead scheduling process price or the real-time dispatch price. Virtual positions at intertie scheduling points are settled at the hour-ahead scheduling process price, while virtual positions cleared at eligible internal nodes are settled at the real-time dispatch price.[5]

3. In order to facilitate convergence bidding at intertie scheduling points, CAISO has enforced two software constraints for the purposes of scheduling and pricing. For scheduling, CAISO operates a physical only constraint to ensure that net physical imports or exports do not exceed the scheduling limit at the intertie scheduling point, consistent with the applicable reliability standards of the North American Electric Reliability Corporation (NERC), and the Western Electricity Coordinating Council (WECC). For both scheduling and pricing, CAISO enforces a physical plus virtual constraint to ensure that net physical plus virtual imports or exports are less than or equal to the scheduling limit at the intertie scheduling point in the applicable direction. The second constraint establishes a shared congestion price for physical plus virtual bids at each intertie and ensures that physical and virtual schedules are cleared together and codetermined based on their economic bid prices in the integrated forward market.[6]

4. CAISO proposed, and the Commission accepted, temporary convergence bidding position limits at intertie scheduling points and internal nodes.[7] The position limits restrict the total megawatts of convergence bids that a scheduling coordinator can place on behalf of a single convergence bidding entity at any one internal node or intertie scheduling point. The temporary position limits were intended for the early stages of convergence bidding to ensure that no single market participant can exercise market

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[5] CAISO explains that these two separate market clearing processes are unique to the CAISO market, where it must manage interconnections with non-CAISO regions that operate on hourly transmission schedules. Further, CAISO states that these settlement rules are required under its current market design and cannot readily be changed. CAISO Filing at 2, 13.

[6] *Id.* at 7-8.

[7] *Cal. Indep. Sys. Operator Corp.*, 133 FERC ¶ 61,039, at P 121 (2010) (Convergence Bidding Order), *order on reh'g*, 134 FERC ¶ 61,070, *order on reh'g*, 136 FERC ¶ 61,156 (2011).

power at an individual node. The position limits are scheduled to be phased out over 12 months for internal nodes and 16 months for intertie scheduling points.[8]

5. On August 26, 2011, in Docket No. ER11-4384-000, CAISO requested a temporary waiver of the requirement that would automatically increase the position limits at intertie scheduling points on October 1, 2011, arguing that CAISO had identified adverse market impacts related to convergence bidding on intertie scheduling points that would be further exacerbated with an increase in the position limits. On September 29, 2011, the Commission approved CAISO's proposal to temporarily waive the tariff requirement to increase position limits at intertie scheduling points on October 1, 2011 until such a time as the Commission acts on the subsequent related filing in this docket.[9]

## II. The Instant Filing

6. In the instant filing, CAISO states that, following the implementation of convergence bidding in February of 2011, CAISO observed market inefficiencies related to an increase in price divergence and higher than expected real-time imbalance energy offset charges,[10] as well as price inconsistencies between the bid price offered and the market clearing locational marginal price. In order to address these inefficiencies, CAISO proposes here to eliminate convergence bidding at intertie scheduling points.

7. Specifically, CAISO contends that pricing trends since the start of the new market in 2009 indicate a tendency for prices in the hour-ahead scheduling process to be lower than real-time dispatch prices.[11] CAISO states that these pricing trends, along with CAISO's two-settlement system, by which CAISO settles virtual bids at internal nodes at

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[8] The Commission approved separate position limits for internal nodes and interties, finding the potential adverse impacts of market issues related to convergence bidding at interties is greater than internal nodes. *See* Convergence Bidding Order, 133 FERC ¶ 61,039 at P 125.

[9] *Cal. Indep. Sys. Operator Corp.*, 136 FERC ¶ 61,214 (2011).

[10] The real-time imbalance energy offset is the account used to reconcile the settlement dollar values for all real-time energy to ensure that after payments and charges for the real-time energy market have been calculated, there is no shortage or surplus. Any shortages or surpluses are allocated to all scheduling coordinators based on a pro rata share of their measured demand (i.e., metered load and exports). CAISO Filing at 10.

[11] *See id. See also* Direct Testimony of Mark A. Rothleder, Attachment to CAISO Filing at 6-8 (Rothleder Testimony).

the usually higher real-time dispatch price and virtual bids at intertie scheduling points at the usually lower hour-ahead scheduling process price, allows market participants to employ a specific bidding strategy to profit from this predictable pattern. For example, CAISO states that the two-settlement system allows market participants to submit virtual supply bids at intertie scheduling points and offsetting virtual demand bids at the internal nodes. CAISO explains that this bidding strategy creates a net positive financial effect for an individual market participant because in the day-ahead settlement, the virtual demand and virtual supply positions offset each other. However, the market participant then pays the hour-ahead price for the virtual import bid and receives the real-time dispatch price for the virtual demand bid when these bids are liquidated in the real-time market.[12]

8. Further, since CAISO is a revenue-neutral entity, when virtual bids on the interties are cleared against the internal bids under this bidding strategy, and the hour-ahead scheduling process price is less than the real-time dispatch price, the real-time imbalance energy offset incurs a charge that is allocated to scheduling coordinators with measured demand.[13] Overall, CAISO observes that the offsetting virtual supply bids and virtual demand bids have contributed to an average of $7.5 million per month in real-time imbalance energy offset charges, or a total of $53 million since convergence bidding was implemented in February 2011. CAISO notes that this value represents 52 percent of the total real-time energy imbalance offset costs. Of the $53 million, $34.9 million is attributable to the offsetting balanced virtual supply and virtual demand positions within the same scheduling coordinator.[14]

9. Moreover, CAISO states that the offsetting virtual supply and demand bids have had no impact on converging day-ahead and real-time prices, which CAISO states was the primary reason for implementing convergence bidding. Rather, CAISO asserts that at times convergence bidding at the interties is increasing the divergence between the day-ahead and real-time prices.[15] CAISO claims that convergence bidding has also had little or no benefit in improving the efficiency of day-ahead unit commitment decisions.[16]

10. Additionally, CAISO has observed a separate and unrelated issue resulting from convergence bidding at the interties that arises from enforcing dual constraints for each intertie scheduling point. Specifically, CAISO observed that virtual bids can produce

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[12] Rothleder Testimony at 15-16.

[13] CAISO Filing at 10-11.

[14] *Id.* at 13; Rothleder Testimony at 21.

[15] CAISO Filing at 3.

[16] *Id.* at 14-15.

congestion when the physical plus virtual constraint is enforced. This congestion is added to the amount that a physical exporter must pay, even when there is no physical congestion on the intertie. The congestion costs are not reflected during the scheduling run under the physical only constraint. Therefore, a physical export or import bid can be accepted and scheduled although the bid price is inconsistent with the market clearing price. As a result CAISO has observed instances when physical exporters pay a higher amount than their bid price.[17]

11. Specifically, CAISO observed that physical exports were clearing the market at higher locational marginal prices than their bid price resulting in a shortage of $225,000 per month in the first two months (i.e., February – March 2011) of convergence bidding. Since April 2011, the observed shortages for physical exports went down to approximately $13,000 per month. CAISO observed an average overpayment to imports of $24,000 per month in cases where physical import bids cleared the market at locational marginal prices that were inconsistent with their bids.[18]

12. Due to the existing market structure, where internal nodes are settled separately from intertie scheduling points, CAISO argues that eliminating convergence bidding at intertie scheduling points will best resolve the identified adverse market impacts and will allow internal convergence bidding to achieve the expected price convergence between the day-ahead and real-time markets. CAISO states that its proposed action will also dispense the need to enforce two constraints at the interties. Therefore, physical schedules at interties will no longer be subject to pricing that is inconsistent with their submitted bids.

13. CAISO states that it reviewed alternatives to eliminating convergence bidding at interties through its stakeholder process but found that the proposed alternatives do not adequately address the problems with price divergence, increased real-time imbalance energy costs, and price inconsistency and create other problems.[19] CAISO recognizes that it may address the issues with price divergence and the real-time imbalance energy offset charges through a change to the existing market design by modifying the

[17] The bid cost recovery mechanism does not apply to exports. CAISO Filing at 3.

[18] *Id.* at 16.

[19] *Id.* at 17-19 (stating that alternatives considered include a rule that prohibits scheduling coordinators from placing offsetting internal and external virtual positions, redesign of the real-time imbalance energy offset, modifications to the timing of convergence bidding liquidation and settlement, and using the approach used in New York Independent System Operator Corp. (NYISO) to manage hourly schedules on interties, among others).

two-settlement market structure. CAISO states that it has begun a stakeholder process, i.e., the renewables integration market and product review phase 2 initiative, to consider far-reaching market design changes.[20] CAISO highlights that it is necessary to consider a wide range of factors in determining the appropriate long term enhancements to the CAISO markets. Therefore, CAISO argues that it is appropriate to eliminate convergence bidding at intertie scheduling points until such a time as that stakeholder process is completed. After such fundamental market design issues are resolved, CAISO states that it may convene another stakeholder process to determine whether convergence bidding at the interties should be reinstated.[21]

14. CAISO requests that its proposed tariff revisions become effective on November 28, 2011.

## III. <u>Notice and Responsive Pleadings</u>

15. Notice of CAISO's filing was published in the *Federal Register*, 76 Fed. Reg. 60,012 (2011), with interventions, comments, and protests due on or before October 12, 2011. Timely motions to intervene were filed by: Brookfield Energy Marketing LP (Brookfield Energy); The City of Santa Clara, California and M-S-R Public Power Agency; Dynegy Moss Landing LLC, *et al.*; Gila River Power LLC; JP Morgan Ventures Energy Corporation, *et al.*; Macquarie Energy LLC; Modesto Irrigation District; and Sacramento Municipal Utility District. Timely motions to intervene and comments were filed by: California Department of Water Resources State Water Project (SWP); the Cities of Anaheim, Azusa, Banning, Colton, Pasadena, and Riverside, California (Six Cities); Northern California Power Agency (NCPA); Pacific Gas and Electric Company (PG&E); Powerex Corp. (Powerex); and Southern California Edison Company (SCE). Timely motions to intervene and protests were filed by: DC Energy California, LLC (DC Energy);[22] NRG Power Marketing LLC, Cabrillo Power I LLC, Cabrillo Power II LLC, El Segundo Power, LLC, Long Beach Generation LLC, and NRG Solar Blythe LLC (collectively, NRG); Western Power Trading Forum (WPTF); and SESCO Enterprises LLC, West Oaks Energy, LLC, and XO Energy CAL, LP (collectively, Financial Marketers). Financial Institutions Energy Group (FIEG) submitted a motion to intervene out-of-time and protest. Six Cities and CAISO submitted answers to protests and comments. Brookfield Energy and WPTF filed answers to answers.

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[20] *Id.* at 19.

[21] *Id.*

[22] DC Energy supports the protest of WPTF.

### A. Comments Supporting CAISO's Proposal

16. SWP, PG&E, SCE, NCPA, Six Cities, and Powerex all strongly support CAISO's proposal to eliminate convergence bidding at the interties. They concur that convergence bidding at the interties has imposed substantial additional costs on load-serving entities by causing a dramatic increase in the real-time imbalance energy offset; has resulted in greater, rather than reduced, price differentials between the day-ahead and real-time markets; and has not lead to improved efficiency in the commitment or dispatch of physical resources but rather increased costs for unit commitment. Additionally, SCE and Six Cities contend that the current market does not recognize any potential theoretical benefits of convergence bidding at the interties that offset the increase in the real-time imbalance energy offset.

17. PG&E and Powerex argue that the market inefficiencies created by convergence bidding on the interties are due to a major market design flaw in the CAISO market. Powerex states that the result of this market design flaw is that offsetting internal versus intertie convergence bidding positions can arbitrage price differences between the hour-ahead scheduling process and real-time dispatch price without materially impacting physical dispatch in CAISO and hence without materially converging hour-ahead scheduling process and real-time dispatch prices. PG&E and Powerex, among others, believe that a permanent, structural fix will not be completed in the near future; thus, elimination of the activity that exploits the design flaw is appropriate until the structural fix is implemented.

18. PG&E, SCE, and Six Cities argue that the allocation of the real-time imbalance energy offset to the load-serving entities is unjust and unreasonable because load has no ability to control the uplift created by convergence bidding at the interties or protect itself from the actions of market participants that profit from convergence bidding at the interties. SCE requests that, if the Commission does not accept CAISO's proposal, it make the real-time imbalance energy offset resulting from convergence bids subject to refund until a solution is implemented.

19. Six Cities, SCE, and Powerex also argue that convergence bidding at the interties has required CAISO to impose constraints on bids and schedules at the interties that have resulted in prices for physical resources inconsistent with the bids submitted by those resources. Pointing to CAISO's finding that virtual import bids can result in physical importers getting payments at a higher price than the importer would have otherwise received, SCE asserts that virtual transactions should not be permitted to inappropriately inflate prices and the Commission should not allow the continuation of a structure that creates the opportunity for gaming. Powerex argues that the dual constraints are a market design issue that cannot be easily corrected given the NERC and WECC requirements that physical schedules must be physically feasible on a stand-alone basis. Although Powerex does not foresee any potential solution to this problem, it believes that

convergence bidding at the interties should not be reinstated unless a market design can be found which includes the symmetric treatment of convergence bids on the interties.

20. In addition, Powerex is concerned that intertie convergence bidding by intertie congestion revenue right (CRR) holders may be leading to inappropriate distortions to intertie market clearing prices. Specifically, Powerex states that the current CAISO CRR clawback rule[23] is materially deficient, resulting in both the incentive and ability to engage in intertie convergence bidding activity that inappropriately results in inflating the value of a participant's CRR holdings. Powerex states that both the elimination of convergence bidding at the interties and a further CAISO review of the CRR clawback rule are appropriate and necessary to address this concern. While SCE and Powerex agree that CAISO's proposal amounts to the only workable and effective solution resulting from a rigorous stakeholder process, both commenters suggest that mitigation is necessary for real-time imbalance energy offset associated with physical transactions (48 percent of current uplift) until a permanent, structural fix is implemented. SCE asserts that two options considered by CAISO (paying interties "as bid" rather than the hour-ahead scheduling process clearing price and adopting the NYISO methodology of providing bid-cost recovery to imports but treating exports as price-takers) have the potential to reduce the real-time imbalance energy offset and should be further explored. Powerex argues that CAISO's filing does not include any additional efforts to curb implicit convergence bidding on the interties and that the means will still exist for market participants to arbitrage the spread between the hour-ahead scheduling process price and the real-time dispatch price using implicit virtual bids. Powerex argues that the Commission should instruct the CAISO to re-engage in its stakeholder discussion on additional measures to curb implicit virtual bidding behavior and subsequently file appropriate tariff amendments with the Commission. Finally, SWP requests that further investigation examine the costs and benefits, if any, to CAISO ratepayers of internal convergence bidding as well.

[23] The CRR clawback rule provides that "CAISO will adjust the revenue from the CRRs of a CRR Holder that is also a Convergence Bidding Entity, and will adjust the revenue from the CRRs of a CRR Holder where the Scheduling Coordinator representing that CRR Holder has reduced a Day-Ahead import or export schedule in the [hour-ahead scheduling process] as set forth in Section 11.32 whenever the virtual bidding activity on behalf of that entity or a reduction to a Day-Ahead import or export Schedule in the [hour-ahead scheduling process] has had a significant impact on the value of the CRRs in the DAM." *See* CAISO Tariff section 11.2.4.6.

### B. Protests

21. NRG and Financial Marketers argue that CAISO has not shown that its proposal will result in just and reasonable rates, as required by section 205 of the FPA.[24] WPTF, FIEG, Financial Marketers and NRG all claim that the dual real-time market settlement design is the root cause of the real-time imbalance energy offset.[25] To resolve the problem with the dual real-time market settlement, WPTF argues that CAISO should settle all real-time energy, both intertie and internal node imbalance energy, at the same price.[26] WPTF argues that intertie transactions do not have to be settled at a separately-established hour-ahead scheduling process price.[27]

22. WPTF, NRG, FIEG, and Financial Marketers argue that CAISO does not consider the benefits of intertie convergence bidding.[28] WPTF and NRG state that intertie convergence bidding promotes day-ahead and hour-ahead scheduling process price convergence at the interties. WPTF, FIEG, and Financial Marketers state that convergence bidding improves liquidity, mitigates market power, and improves reliability, among other things.[29] WPTF argues that intertie convergence bidding promotes efficient dispatch decisions and lowers day-ahead prices. WPTF notes that intertie convergence bids have reduced day-ahead to hour-ahead scheduling process price differences from $4/MWh to $2/MWh.[30]

23. Additionally, WPTF and Financial Marketers warn that implicit convergence bidding where market participants take actions in the physical market, apart from actions in the virtual market, to arbitrage the price difference between markets, may increase if convergence bidding at interties is eliminated. Implicit convergence bidding poses potential reliability concerns due to the expectation that energy will actually be delivered. Convergence bidding does not present those concerns.[31]

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[24] WPTF Protest at 10; NRG Protest at 1; Financial Marketers Protest at 4-5.

[25] WPTF Protest at 10; NRG Protest at 1; Financial Marketers Protest at 12; FIEG Protest at 8.

[26] WPTF Protest at 11, 17-18.

[27] *Id.* at 10.

[28] WPTF Protest at 5; FIEG Protest at 7; NRG Protest at 3-4; Financial Marketers Protest at 18.

[29] WPTF Protest at 5; FIEG Protest at 7; Financial Marketers Protest at 19.

[30] WPTF Protest at 21.

[31] WPTF Protest at 6-7; Financial Marketers Protest at 10.

24. Financial Marketers note that CAISO does not provide sufficient data to quantify the impact of eliminating convergence bidding at the interties. According to Financial Marketers, CAISO states that its proposal would eliminate the vast majority of virtual supply, some of which cannot be attributed to the offsetting bidding strategy. Financial Marketers argue that the price impact from the elimination of this large source of virtual supply could easily be much more than the $7.5 million per month in real-time imbalance energy offset charges that CAISO attributes to convergence bidding.[32]

25. WPTF and NRG state that intertie convergence bidding promotes day-ahead and hour-ahead scheduling process price convergence at the interties.[33] WPTF and FIEG argue that, for intertie markets, convergence biding was designed to converge day-ahead and hour-ahead scheduling process prices. For internal nodes, convergence bidding was designed to converge day-ahead and real-time dispatch prices.[34] WPTF argues that, since implementation, convergence has improved at internal nodes and interties. Specifically, for internal nodes, the average real-time to day-ahead locational marginal price premium has fallen from $2.96/MWh for the period before convergence bidding began to close to zero (-$0.48/MWh) in the convergence bidding era (February 2011- September 2011). WPTF's analysis also shows that for intertie nodes, the average day-ahead to hour-ahead premium was $3.92/MWh for the period before convergence bidding began. However, it has decreased to $2.05/MWh in the convergence bidding era.[35]

26. According to Financial Marketers and WPTF, CAISO notes in its filing that the real-time imbalance energy offset account has been higher than expected since the implementation of the Market Redesign and Technology Upgrade (MRTU) in April 2009, prior to the implementation of convergence bidding. Specifically, the charges were $14.3 million in the first month of operations under MRTU in April 2009. CAISO implemented a stakeholder process to address these charges and identify causes. According to Financial Marketers, CAISO did not take further action to address the high real-time imbalance energy offset charges except to exempt certain market participants from bearing those costs.[36] Financial Marketers argue that convergence bidding at interties neither causes increased real-time imbalance energy offset charges nor would the

[32] Financial Marketers Protest at 21.

[33] WPTF Protest at 5; FIEG Protest at 7; Financial Marketers Protest at 19.

[34] WPTF Protest at 13-15; FIEG Protest at 10.

[35] WPTF Protest at 13-15.

[36] WPTF Protest at 19-20; Financial Marketers Protest at 12 (citing CAISO, *Analysis of Real-Time Imbalance Energy Offset, available at* http://www.caiso.com/Documents/IssuePaper-Analysis-Real-timeimbalanceenergy-fset_CC6477_24_Aug-2009.pdf).

elimination of convergence bidding at intertie scheduling points materially reduce the real-time imbalance energy offset charges.[37]

27. WPTF and Financial Marketers argue that CAISO overstated the cost impact of intertie convergence bidding. WPTF states that the real-time imbalance energy offset charges totaled approximately $210 million from the implementation of the CAISO nodal market on April 1, 2009, through December 31, 2010,[38] just prior to the deployment of convergence bidding. WPTF states that the real-time imbalance energy offset charge is less than 1 percent of the total day-ahead and real-time energy costs.[39] WPTF states that the real-time imbalance energy offset costs have declined from $14.3 million at the outset of MRTU in April 2009 to approximately $10 million at the end of August 2011. WPTF notes that the amount of the real-time imbalance energy offset attributed to intertie convergence bidding was approximately $3.5 million in August 2011.[40] WPTF further argues that CAISO has not quantified the net impact on load serving entities.

28. Financial Marketers claim CAISO is overstating the calculation of financial loss by including real-time imbalance energy offset charges caused by offsetting convergence bids across different scheduling coordinator portfolios. Financial Marketers note that, when the cross scheduling coordinator offsetting bids are removed, the total real-time imbalance energy offset charges for the period total just $34.9 million, or 35 percent of the total real-time imbalance energy offset charges.[41] Also, Financial Marketers and WPTF claim that the level of the real-time imbalance energy offset charges is diminishing as convergence bidding matures. Importantly, in July and August, the offsetting bids contributed only 19 percent to the real-time imbalance energy offset and in August, 2011, the offsetting bids contributed just 15 percent of the total real-time imbalance energy offset charges, of $2.4 million and $1.6 million, respectively.[42]

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[37] Financial Marketers Protest at 13.

[38] *See* WPTF Protest, Appendix A, Figure 1 (citing CAISO, 2010 Market Issues and Performance Annual Report, Figure 3.13 (2010 Market Issues and Performance Report), *available at* http://www.caiso.com/Documents/2010AnnualReportonMarketIssuesandPerformance.pdf).

[39] WPTF Protest at 20 (citing 2010 Market Issues and Performance Annual Report, at 15).

[40] *Id.* at 19-20.

[41] Financial Marketers Protest at 7 (citing Rothleder Testimony at 22).

[42] *Id.*

29. WPTF, Financial Marketers and FIEG acknowledge that the price inconsistency issue is an ongoing problem with no immediate remedy but argue that it should not be a driver behind the elimination of convergence bidding at interties. Financial Marketers argue that CAISO overstates the scope of the problem and fails to acknowledge that convergence bidding is actually reducing price inconsistency. While price inconsistency inefficiencies remain, Financial Marketers argue that the remaining problems do not warrant elimination of convergence bidding at the interties.[43]

30. WPTF, NRG, and Financial Marketers argue that CAISO prematurely abandoned other options to address the problems attributed to intertie convergence bidding. NRG argues that CAISO has a legal obligation to explore a variety of potential solutions when it identifies a problem in its existing market.[44] Financial Marketers argue that stakeholders recognized the benefits of convergence bidding and supported alternative proposals.[45]

31. WPTF and Financial Marketers state that the CAISO did not give adequate consideration of implementing a settlement rule that would credit any profits associated with submission of balanced intertie and internal virtual schedules. WPTF argues that CAISO could consider implementing an objective, automatic settlement rule to eliminate profits, discussed above, within a scheduling coordinators portfolio, and rely on the CAISO Department of Market Monitoring existing market monitoring, enforcement, and Commission referral authority to dissuade market participants from entering into bilateral arrangements.[46]

32. Financial Marketers argue that CAISO rejected Powerex's proposal without cause. Powerex proposed that intertie virtual supply and demand would not be liquidated in the hour-ahead scheduling process but would be held and liquidated in the real-time dispatch market. According to Financial Marketers, CAISO found that this proposal would lead to convergence between the integrated forward market, hour-ahead scheduling process, and real-time dispatch prices. Financial Marketers note that, in such a way, Powerex's proposal would serve as a tool to address the hour-ahead scheduling process and real-time dispatch price divergence, which is a problem that has plagued CAISO since April 2009. Financial Marketers argue that this proposal is more beneficial than the proposal offered by CAISO.[47] Additionally, WPTF and Financial Marketers allege that CAISO

[43] Financial Marketers Protest 8-9; FIEG Protest at 10; WPTF Protest at 23-24.

[44] NRG Protest at 4; WPTF Protest at 22; Financial Marketers Protest at 14.

[45] Financial Marketers Protest at 17.

[46] WPTF Protest at 22.

[47] Financial Marketers Protest at 16.

rejected the approach used in NYISO outright without providing adequate rationale for doing so. WPTF and Financial Marketers argue that the Commission-approved NYISO approach has proven effective but was not given adequate consideration by CAISO.[48]

33. WPTF states that the Commission should direct CAISO to implement market changes to eliminate the hour-ahead scheduling process and file such changes no later than February 1, 2012. WPTF notes that while CAISO estimated that this process would take three to four years, WPTF disagrees, stating that the problem could be resolved with a two month stakeholder process.[49] NRG supports WPTF's position.[50]

34. FIEG states that its members advocated that CAISO address the hour-ahead scheduling process price and real-time price differences using several interim measures.[51]

## IV. Discussion

### A. Procedural Matters

35. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2011), the timely, unopposed motions to intervene serve to make the entities that filed them parties to the proceeding.

36. Pursuant to Rule 214(d) of the Commission's Rules of Practice and Procedure, 18 C.F.R § 385.214(d) (2011), the Commission will grant FIEG's late-filed motion to intervene and protest given its interest in the proceeding, the early stage of the proceeding, and the absence of undue prejudice or delay.

37. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2), prohibits an answer to a protest and/or an answer unless otherwise ordered by the decisional authority. We are not persuaded to accept CAISO's, Six Cities', Brookfield Energy's, or WPTF's answers and will, therefore, reject them.

### B. Commission Determination

38. As discussed below, we find that CAISO's proposal to eliminate convergence bidding at intertie locations may be unjust, unreasonable, unduly discriminatory or

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[48] WPTF Protest at 23; Financial Marketers Protest at 17.

[49] WPTF Protest at 23.

[50] NRG Protest at 2.

[51] FIEG Protest at 8-9.

preferential. However, in light of the potential financial harm and the risks associated with continuing to allow convergence bidding at intertie locations, we accept and suspend CAISO's proposal to eliminate convergence bidding at intertie locations, to become effective November 28, 2011, subject to a technical conference and further order by the Commission. To expeditiously explore issues related to convergence bidding at intertie locations and to supplement the existing record, we direct Commission staff to convene a technical conference.[52] The details of such conference will follow in a subsequent notice. Parties should be prepared to address the issues raised and to fully support their positions. Following the conference, the parties will have an opportunity to file written comments that will be included in the formal record of the proceeding, which, together with the record developed to date, will form the basis for further Commission action.

39. The Commission has previously acknowledged, in accepting convergence bidding, that it is likely that "the benefits of allowing virtual bidding (and the operational problems caused by the absence of virtual bidding) may outweigh the costs and possible short-term learning curve associated with implementation of virtual bidding."[53] CAISO argues here that the offsetting bids submitted by scheduling coordinators have contributed to the increased real-time imbalance energy offset charges since the implementation of convergence bidding, and protesters do not challenge these allegations. The Commission continues to recognize the benefits of convergence bidding but also recognizes the concerns of financial harm experienced from convergence bidding at interties as a cost and part of the "learning curve" associated with implementation of virtual bidding. Although CAISO may not have found that the implementation of convergence bidding at interties was as successful as CAISO initially anticipated, we must evaluate the potential issues and benefits attributed to convergence bidding at interties, and the associated costs and potential solutions for any such issues at greater length in order to determine whether they warrant its indefinite elimination.

40. In this proceeding the Commission has been presented with conflicting cost estimates provided by CAISO and the protesters to support their opposing positions. Therefore, at the technical conference ordered herein, parties will have the opportunity to provide further support for the analysis presented in their pleadings. Several parties have raised concerns that CAISO's proposal does not address the two settlement system as the underlying cause of the price divergence between the day-ahead and real-time markets or the increased real-time imbalance energy offset. These parties also argue that the benefits

[52] Additionally, we remind the parties that the Commission's Dispute Resolution Service (DRS) is available to convene the parties to explore alternative dispute resolution process options to facilitate agreement on matters at issue. DRS can be reached at 1-877-337-2237.

[53] *Cal. Indep. Sys. Operator Corp.*, 107 FERC ¶ 61,274, at P 158 (2004).

of convergence bidding are not considered by CAISO in its proposal. Additionally, they challenge the aggregate data provided by CAISO to demonstrate the cost consequence of convergence bidding at the interties, stating that CAISO has cherry-picked its data to support its arguments and has generally overstated the cost impact of intertie convergence bidding. In particular, protesters provide aggregate data that supports convergence between day-ahead and real-time prices.

41. Additionally, several parties, including supporters of CAISO's proposal, have urged the Commission to further explore additional or alternative solutions arguing that CAISO did not give sufficient consideration to alternative or additional options to address the problems identified by CAISO and urge further examination of these options. In particular, the protesters highlight concerns that the separate hour-ahead market process at the intertie is the primary driver to the market inefficiencies and should be addressed. We find that the question of when CAISO will address the underlying cause is an important one in considering CAISO's proposal to eliminate convergence bidding at interties.

42. We note that CAISO proposes to totally eliminate rather than temporarily suspend convergence bidding at intertie locations. Although CAISO commits to addressing the underlying cause of the real-time imbalance energy offset and the price divergence in a stakeholder process, CAISO estimates that such a stakeholder process will take two to three years to complete. Following the conclusion of that stakeholder process, CAISO states that it may decide to evaluate whether to reinstitute convergence bidding at intertie locations. Given the indefinite nature of CAISO's proposal, we find that it is critical to evaluate when CAISO will address the underlying cause of the problem, as well as the potential issues and benefits attributed to convergence bidding at interties, and the associated costs and potential solutions for any such issues at greater length. These and any related issues would benefit from further examination by Commission staff and the parties at the technical conference.[54]

43. We find that Powerex's argument on whether CAISO's CRR clawback rule is materially deficient is beyond the scope of the instant proceeding, and as such, we will not consider this issue at the technical conference.

44. Finally, as discussed above, the Commission granted a temporary waiver, from October 1, 2011 until the Commission acts on the instant filing, of the provisions in the CAISO Tariff that require CAISO to automatically increase the position limits for

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[54] We are directing Commission staff to convene a technical conference in lieu of establishing hearing and settlement judge procedures in order to examine the issues, benefits, and potential solutions in an expedited manner.

convergence bids at intertie scheduling points. Although our acceptance here of CAISO's proposed tariff revisions eliminates convergence bidding and the position limits at intertie scheduling points while it considers the matter further, we note that our acceptance is subject to the outcome of a technical conference and further Commission order.

The Commission orders:

(A) CAISO's proposed tariff revisions are hereby accepted and suspended for a nominal period to become effective on November 28, 2011, as requested, subject to the outcome of a technical conference and further Commission order, as discussed in the body of this order; and

(B) Commission staff shall convene a technical conference following the date of issuance of this order, as discussed in the body of this order.

By the Commission. Commissioner Spitzer is not participating.

( S E A L )

Kimberly D. Bose,
Secretary.

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