152 FERC ¶ 61,234
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Norman C. Bay, Chairman;
Philip D. Moeller, Cheryl A. LaFleur,
Tony Clark, and Colette D. Honorable.

California Independent System Operator Corporation	Docket Nos. ER15-1451-000 ER14-480-000
California Independent System Operator Corporation	Docket No. EL15-98-000

ORDER ON REQUEST FOR WAIVER AND INSTITUTING SECTION 206 PROCEEDING

(Issued September 25, 2015)

1. On April 3, 2015, in Docket No. ER15-1451-000, the California Independent System Operator Corporation (CAISO) filed a request for waiver of provisions in sections 30.9, 30.7.3.6.3, and 30.7.3.6.3.2 of the CAISO tariff, which provide for reinstatement of intertie convergence bidding on May 1, 2015.[1] In support of its request for waiver, CAISO attached a report (April 3 Supplemental Report) by its Department of Market Monitoring indicating that reinstatement of convergence bidding at the interties under current circumstances would lead to market inefficiencies.[2]

[1] Convergence bids in the CAISO market, also known as virtual bids, are financial bids to buy or sell electricity in the day-ahead market without any obligation to physically provide or consume electricity. If a convergence bid is cleared in the day-ahead market, it is automatically liquidated with the opposite buy/sell position at the real-time price.

[2] CAISO also submitted the April 3 Supplemental Report in Docket No. ER14-480-000, in response to a Commission directive to submit informational reports relevant to reinstatement of intertie convergence bidding. *California. Indep. Sys. Operator Corp.*, 146 FERC ¶ 61,204, at P 103 (2014) (March 2014 Order).

2. On April 29, 2015, the Commission issued an order[3] granting, subject to further order, limited waiver of the May 1, 2015 reinstatement of intertie convergence bidding to allow the Commission to develop a fuller record regarding matters relevant to CAISO's request for waiver. Noting that the information reflected in the April 3 Supplemental Report was inconsistent with a previous informational report (December 31 Informational Report) that CAISO submitted in Docket No. ER14-480-000,[4] the Commission sought comments on both reports. Pursuant to the Commission's authority under section 206 of the Federal Power Act (FPA)[5] we here find, effective as of the date of this order, that CAISO's tariff provisions reinstating convergence bidding at the interties are unjust and unreasonable. Consistent with that finding, we terminate the waiver and direct CAISO to submit a compliance filing, within 30 days of the date of this order, reflecting removal of the relevant tariff provisions.

I. Background

A. Convergence Bidding at the Interties

3. Convergence bidding in the CAISO market was first implemented on February 1, 2011, at both internal nodes and the interties. On September 21, 2011, CAISO filed a tariff amendment to discontinue convergence bidding at the interties, due to the potential for market manipulation under the current tariff provisions in effect at that time. The Commission accepted and suspended CAISO's proposal, for a nominal period, effective November 28, 2011, and conditioned its acceptance subject to the outcome of a technical conference and further Commission order.[6] The Commission convened a technical conference on February 2, 2012.

4. Following the technical conference, the Commission issued an order on May 2, 2013, conditionally accepting CAISO's proposal to suspend intertie convergence bidding, effective November 28, 2011.[7] The Commission found that "the costs associated with

[3] *California Indep. Sys. Operator Corp.*, 151 FERC ¶ 61,074 (April 2015 Order).

[4] The December 31 Informational Report supported the reinstatement of convergence bidding at the interties, beginning on May 1, 2015.

[5] 16 U.S.C. § 824e (2012).

[6] *California Indep. Sys. Operator Corp.*, 137 FERC ¶ 61,157, at P 38 (2011).

[7] *California Indep. Sys. Operator Corp.*, 143 FERC ¶ 61,087, at P 61 (2013) (May 2013 Order).

intertie convergence bidding outweigh the limited benefits being realized under the existing real time market based structure."[8] The Commission also stated that CAISO "should focus its efforts on developing a comprehensive, long-term structural solution that will permit the reinstatement of intertie convergence bidding with just and reasonable outcomes, improving market efficiency by committing supply resources to meet real-time needs."[9]

5. CAISO considered the issues surrounding convergence bidding at the interties in a stakeholder initiative to address compliance with Order No. 764[10] and, on November 26, 2013, CAISO proposed tariff revisions to comply with Order No. 764 and to phase-in the reinstatement of convergence bidding at the interties. In finding CAISO's proposal to reinstate convergence bidding at the interties was just and reasonable,[11] the Commission stated:

> We will conditionally accept CAISO's proposal to reinstate convergence bidding on the interties 12 months after the implementation of the 15-minute market.[12] We find that allowing for a 12-month period before reinstating convergence bidding at the interties will provide sufficient time for CAISO to gain experience with the new market enhancements and permit CAISO to better assess the potential impact of reinstating intertie convergence bidding, and also to address any lingering concerns. […] We also find that CAISO's proposed approach of using phased position limits, based on the position limits previously approved by

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[8] *Id.* P 61.

[9] *Id.*

[10] *Integration of Variable Energy Resources*, Order No. 764, FERC Stats. & Regs. ¶ 31,331, *order on reh'g and clarification*, Order No. 764-A, 141 FERC ¶ 61,232 (2012), *order on clarification and reh'g*, Order No. 764-B, 144 FERC ¶ 61,222 (2013) (Order No. 764).

[11] March 2014 Order, 146 FERC ¶ 61,204 at PP 53, 96-97.

[12] Convergence bidding at the interties would have been reinstated beginning on May 1, 2015.

> the Commission, is appropriate as an additional safeguard upon reinstatement.
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> […]
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> Because we find that CAISO's proposal to reinstate convergence bidding on the interties is just and reasonable, we will not require CAISO to initiate a stakeholder process to consider further reforms to the design of convergence bidding. However, in light of the previous issues with substantial uplift that led to the suspension of intertie convergence bidding, and the magnitude of the market design changes being proposed here, we will condition our acceptance of CAISO's proposal to reinstate convergence bidding, 12 months after implementation of the 15-minute market, on CAISO filing a report to demonstrate that the new market structure is providing the expected price convergence and that the issues that resulted in the suspension of intertie convergence bidding have been resolved. This report should demonstrate that the new market design is working to reduce systemic price divergence and should also discuss whether the anticipated benefits of intertie convergence bidding outweigh any expected market inefficiencies, including any risk of market manipulation.[13]

B. December 31 Informational Report

6. In response to the Commission's directive to file a report to demonstrate that the new market structure is providing the expected price convergence and that the issues that resulted in the suspension of intertie convergence bidding have been resolved, CAISO submitted the December 31 Informational Report. In that report, CAISO indicated that the data contained therein supported the reinstatement of convergence bidding at the interties on May 1, 2015. CAISO further noted that if new data suggested otherwise, it would inform the Commission and take appropriate actions to address those issues.[14] On February 10, 2015, Pacific Gas and Electric Company (PG&E) filed comments on the December 31 Informational Report, requesting that CAISO's Department of Market

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[13] March 2014 Order, 146 FERC ¶ 61,204 at PP 96-97, 103 (footnotes omitted).

[14] A notice of filing was not issued in response to the December 31 Informational Report. *See* March 2014 Order, 146 FERC ¶ 61,204 at n.89.

Monitoring be required to evaluate whether there are any ongoing concerns surrounding intertie convergence bidding prior to reinstatement. PG&E expressed concern that the December 31 Informational Report did not provide sufficient information to conclude that convergence bidding should be reinstated by May 1, 2015.[15]

C. April 3 Supplemental Report

7. CAISO filed the Department of Market Monitoring's April 3 Supplemental Report in support of its request for waiver of the tariff provisions reinstating convergence bidding at the interties.[16] The April 3 Supplemental Report explained that there currently is a lack of economic bids at the interties, and that reinstating intertie convergence bidding under these market conditions would create incentives for entities engaged in convergence bidding to profit from differences in congestion prices between the day-ahead market and the 15-minute market simply by creating counterflow that would increase the extent to which physical schedules exceeded intertie scheduling limits. Specifically, the report explained that with lack of economic bids in the 15-minute market at the interties there generally will be no congestion price reflected in the locational marginal prices for the 15-minute market at those locations, which creates predictable price differences that market participants can arbitrage. In addition, the report explained that this outcome will occur to the detriment of market efficiency, because reinstating intertie convergence bidding while a lack of economic bids at certain interties exists will increase the need for operators to manage real-time congestion through *pro rata* cuts, instead of based on the underlying costs of the intertie resources; thereby, decreasing the economic efficiency of intertie schedules.[17]

8. The Department of Market Monitoring concluded that, given the lack of liquidity in CAISO's 15-minute market, reinstating convergence bidding at the interties under current circumstances would lead to market inefficiencies that are not outweighed by the benefits provided by convergence bidding, and CAISO should not reinstate intertie convergence bidding on May 1, 2015.[18] The April 3 Supplemental Report recommended that careful consideration by CAISO and stakeholders be given to understanding the

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[15] PG&E February 10, 2015 Informational Report Comments in Docket No. ER14-480-000.

[16] CAISO filed the April 3 Supplemental Report in Docket No. ER15-1451-000 and in Docket No. ER14-480-000.

[17] CAISO April 3, 2015 Transmittal at 10 (CAISO Transmittal).

[18] April 3 Supplemental Report at 1.

structural barriers outside of the CAISO markets before reinstating convergence bidding at the interties.

D. <u>Request for Waiver</u>

9. On April 3, 2015, based on the information provided in the April 3 Supplemental Report, CAISO requested a waiver of the tariff provisions that would reinstate convergence bidding on May 1, 2015, and requested that the waiver remain in effect for a maximum of 12 months, i.e., until May 1, 2016, or until such time as CAISO makes a filing under section 205 of the FPA,[19] proposing to amend the tariff provisions relating to intertie convergence bidding.[20]

10. In its request for waiver, CAISO stated that the reasons for low market liquidity at the interties in the 15-minute market are unclear. However, based on feedback from market participants, CAISO noted that possible causes may include: (1) neighboring balancing authority areas not supporting 15-minute schedule changes, (2) difficulty in procuring transmission in 15-minute blocks, (3) an absence of bilateral trading at a 15-minute granularity, and (4) reticence of resource owners to adjust their output within the hour.[21]

11. CAISO stated that, under existing circumstances, it has no reason to believe that market liquidity at the interties in the 15-minute market will increase if convergence bidding at the interties were reinstated. Thus, CAISO requested a 12-month maximum waiver (i.e., until May 1, 2016) to allow it to investigate the causes underlying the lack of liquidity at the interties in the 15-minute market and explore, through a stakeholder process, whether there are potential solutions that would allow the reintroduction of convergence bidding at the interties in a manner that ensures that the benefits outweigh any market inefficiencies.[22]

12. CAISO stated that good cause exists to grant its request for waiver and that the Commission has granted similar requests.[23] First, CAISO stated that the waiver is of

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[19] 18 U.S.C. § 824d (2012).

[20] CAISO Transmittal at 1-2 and 14.

[21] *Id.* at 9-10.

[22] *Id.* at 9-10 and 14-15.

[23] *Id.* at 14 (citing *see, e.g., New York Independent System Operator, Inc.*, 146 FERC ¶ 61,061, at P 19 (2014); *PJM Interconnection, L.L.C.*, 141 FERC ¶ 61,103, at P 8

(continued …)

limited scope, since it maintains the status quo (because the provisions are not currently in effect) for an additional period, not to exceed 12 months. Second, CAISO stated that the waiver will allow it to address a concrete problem, because it will provide sufficient time for CAISO to seek stakeholder input on the underlying causes of the lack of liquidity at the interties and determine whether there are solutions that would permit the reinstatement of convergence bidding at the interties. CAISO also stated that given the issues presented by low market liquidity at the interties in the 15-minute market, it cannot be confident that reinstating intertie convergence bidding will result in just and reasonable outcomes. Finally, CAISO stated that the waiver will not have undesirable consequences, such as harming third parties, because no undesirable consequences have resulted in the absence of convergence bidding at the interties. CAISO stated that, to the contrary, waiver will prevent market participants from exploiting the arbitrage opportunity that the Department of Market Monitoring has identified.[24]

E. The April 2015 Order

13. In the April 2015 Order, the Commission found that the proceeding would benefit from further development of the record, given that the new information contained in the April 3 Supplemental Report was inconsistent with the December 31 Informational Report. Accordingly, the Commission granted a limited waiver, effective May 1, 2015, subject to further order, and sought comments on the December 31 Informational Report and the April 3 Supplemental Report.[25]

II. Notice and Responsive Pleadings

A. April 3, 2015 Request for Waiver

14. Notice of CAISO's April 3, 2015 request for waiver was published in the *Federal Register*, 80 Fed. Reg. 19,656 (2015), with interventions and protests due on or before April 13, 2015. Timely motions to intervene were filed by XO Energy CAL, LP; City of Santa Clara, California and the M-S-R Public Power Agency, jointly; Modesto Irrigation District, Boston Energy Trading and Marketing LLC; NRG Power Marketing LLC and GenOn Energy Management Companies (collectively NRG Companies); and

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(2012); *ISO New England Inc.*, 134 FERC ¶ 61,182, at P 8 (2011); *California Indep. Sys. Operator Corp.*, 132 FERC ¶ 61,004, at P 10 (2010)).

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

[25] April 2015 Order, 151 FERC ¶ 61,074 at P 27.

the cities of Anaheim, Azusa, Banning, Colton, Pasadena, and Riverside, California (collectively, Six Cities).

15. On April 7, 2015 and April 8, 2015, respectively, Powerex Corporation (Powerex) and the Western Power Trading Forum (WPTF) filed a motion to intervene, comments, and request for extension of the deadline for comments.

16. On April 13, 2015, motions to intervene and comments were filed by Six Cities, PG&E, Southern California Edison Company (SoCal Edison), California Department of Water Resources State Water Project (SWP), San Diego Gas & Electric Company (SDG&E), and Northern California Power Agency (NCPA). On the same day, Powerex filed comments, SESCO CALISO LLC (SESCO) filed a motion to intervene and comments, and WPTF filed comments and a protest.

17. On April 15, 2015, the Public Utilities Commission of the State of California (CPUC) filed an untimely motion to intervene.

18. On April 20, 2015, CAISO and PG&E filed separate answers to the protests filed by WPTF and Powerex. On April 24, 2015, Powerex filed an answer to CAISO's April 20 answer.

B. December 31 Informational Report and April 3 Supplemental Report

19. Pursuant to the April 2015 Order, on April 29, 2015, the Commission issued a notice of the December 31 Informational Report and the April 3 Supplemental Report in the *Federal Register*, 80 Fed. Reg. 26,026 (2015), with comments due on or before May 20, 2015.

20. On May 20, 2015, Six Cities, PG&E, SDG&E, Powerex, and WPTF filed comments and protests in response to the extended comment period granted in the April 2015 Order. On June 4, 2015, CAISO filed an answer addressing the comments and protests submitted during the extended comment period.

C. Summary of Comments, Protests, and Answers

1. Comments in Support of Delaying Convergence Bidding at the Interties

21. Several commenters support further delay of intertie convergence bidding until such time that it can be clearly demonstrated that the market can function properly and improve market efficiency and benefit consumers.[26] Generally, these parties argue that

[26] PG&E April 13 Comments at 3; Six Cities April 13 Comments at 1; NCPA

(continued …)

the April 3 Supplemental Report demonstrated that reinstating intertie convergence bidding at this time, with a significant lack of economic bids in the 15-minute market, would harm ratepayers without providing any benefits. The parties contend that the current market structure would result in windfall profits for the entities engaged in convergence bidding without the desired effect of price convergence and improved market efficiency.[27] Thus, commenters contend that unless the issues identified by CAISO are resolved, reinstating intertie convergence bidding under current market conditions will cause rates to be unjust and unreasonable.[28]

22. Specifically, PG&E, SoCal Edison, and SWP explain that reinstating convergence bidding at the interties would create incentives for virtual traders to profit from differences between congestion prices in the day-ahead and 15-minute market.[29] SoCal Edison explains that, under the current structure, efficient 15-minute market prices can only be set by physical 15-minute bids and contends that until the 15-minute market has sufficient bids to produce efficient prices, virtual bids will likely extract rents rather than create efficiency. Thus, SoCal Edison argues that a minimum metric of 15-minute physical supply that is not controlled by virtual bidders should be a prerequisite for reinstating virtual bids on the interties.[30] SDG&E likewise states that current liquidity at interties is either non-existent or too low to prevent negative outcomes, and that sufficient liquidity must exist at the interties before CAISO reinstates convergence bidding.[31]

23. In addition, PG&E asserts that under the current market conditions, reinstating convergence bidding at the interties will not improve market efficiencies.[32] Specifically, PG&E asserts that the lack of liquidity, as described in the April 3 Supplemental Report,

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April 13 Comments at 3-4; SoCal Edison April 13 Comments at 3-4; SWP April 13 Comments at 4-5; SDG&E April 13 Comments at 3.

[27] PG&E April 13 Comments at 3-4; Six Cities April 13 Comments at 2-3; SoCal Edison April 13 Comments at 2; SWP April 13 Comments at 4-5; NCPA April 13 Comments at 3.

[28] SWP April 13 Comments at 4-5; NCPA April 13 Comments at 3.

[29] SoCal Edison April 13 Comments at 2; SWP comments at 4-5.

[30] SoCal Edison April 13 Comments at 3-4.

[31] SDG&E April 13 Comments at 3.

[32] PG&E April 13 Comments at 3.

will encourage arbitrage, resulting in significant profits for convergence bidders, at the expense of causing similar market inefficiencies experienced by CAISO's markets in 2011. PG&E explains that in 2011 when CAISO initially launched convergence bidding at the interties, the financial settlement of bids led to additional imbalance offset costs of $58 million.[33]

24. SDG&E expresses concern that there may be structural issues, beyond those already identified, in the existing market between the day-ahead, hour-ahead and 15-minute market processes such that convergence bidding entities can arbitrage to profit at the expense of SDG&E's customers. SDG&E asserts that handling congestion for the different market participants and footprints may preclude convergence. Thus, SDG&E contends, CAISO must determine if convergence bidding at the interties can ever be reinstated under CAISO's current markets design. SDG&E asserts that delaying the reinstatement of convergence bidding at the interties will allow time to investigate these structural issues and ensure that no additional market design issues remain.[34]

25. Moreover, Six Cities contend that, taken together, the December 31 Informational Report and the April 3 Supplemental Report illustrate the need for a comprehensive analysis of structural differences between the day-ahead and real-time market processes, prior to the reinstatement of intertie convergence bidding. Six Cities state that the December 31 Informational Report focused too narrowly on price convergence and resolution of the single structural issue that previously had given rise to convergence bidding uplift charges. Six Cities claim that although the April 3 Supplemental Report appropriately expanded the analysis to consider systematic differences between day-ahead and real-time congestion, thereby identifying inefficiencies that likely would result from reinstating convergence bidding at the interties, the analysis is insufficient. Six Cities note that the April 3 Supplemental Report stated that "[w]hen structural differences exist between the day-ahead and real-time markets, convergence bids can decrease the efficiency of day-ahead market schedules even while converging prices between the markets." Six Cities assert that prior to the reinstatement of convergence bidding at the interties, the Commission should require CAISO to identify and evaluate the impact of all structural differences between the day-ahead and real-time markets in the context of convergence bidding. For example, Six Cities add, the operation of the energy imbalance market is one obvious source of significant structural differences between the day-ahead and real-time markets that has not been analyzed.[35]

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[33] *Id.* at 4.

[34] SDG&E April 13 Comments at 3.

[35] Six Cities May 20 Comments at 4-5.

26. Six Cities also state that the December 31 Informational Report and the April 3 Supplemental Report failed to respond to the Commission's prior directive in the Commission's March 2014 Order to discuss whether the anticipated benefits of intertie convergence bidding outweigh any expected market inefficiencies, including any risk of market manipulation. Six Cities state that while the majority of convergence bidding transactions are made by financial entities and marketers, who also receive the majority of associated profits,[36] it is load that is responsible for paying all uplift resulting from convergence bidding, and allowing reinstatement of convergence bidding at the interties would increase the risk to load of convergence bidding uplifts. Six Cities state that unless and until there is demonstrable evidence of benefits to load from reinstatement of convergence bidding at the interties, exposing load to increased risk of convergence bidding uplift charges would be patently unjust and unreasonable.[37]

27. Several commenters also support CAISO's proposal to work with stakeholders to identify a solution that would allow convergence bidding at the interties to be reinstated when it can be determined to function properly.[38] PG&E states that deferring the reinstatement of intertie convergence bidding is also necessary to give CAISO an opportunity to adjust to recent changes to its energy markets and to the ongoing changes to other Western markets.[39]

28. Commenters recommend that, prior to the reinstatement of convergence bidding at the interties, the Commission should require CAISO to meet certain conditions. PG&E and SoCal Edison recommend that prior to the reinstatement of convergence bidding at the interties CAISO conduct a stakeholder process and focus on identifying market solutions to the issue concerning a lack of economic bid liquidity at the interties in the 15-minute market.[40] PG&E also recommends that CAISO be directed to file a report that

[36] *Id.* at 6 (citing the 2013 CAISO Department of Market Monitoring Annual Report and the CAISO Department of Market Monitoring Quarterly Report on Market Issues and Performance for the Fourth Quarter of 2014).

[37] *Id.* at 5-6.

[38] SoCal Edison April 13 Comments at 3; SWP April 13 Comments at 5; SDG&E April 13 Comments at 3; PG&E April 13 Comments at 4-5.

[39] PG&E April 13 Comments at 6-7.

[40] PG&E and SDG&E state that CAISO and the Department of Market Monitoring will launch a formal stakeholder process to address the issue and will report the progress of the stakeholder process to the Commission and market participants. PG&E May 20 Comments at 5; SDG&E May 20 Comments at 4.

demonstrates the benefits of implementing convergence bidding at the interties six months prior to reinstating intertie convergence bidding,[41] and to evaluate convergence bidding at the interties before CAISO increases each position limit.[42]

29. PG&E also states that the stakeholder process should identify appropriate remedies to CAISO's markets and demonstrate a clear expectation that the benefits of reinstating convergence bidding at the interties will exceed the associated costs, such as the cost related to market manipulation.[43] SoCal Edison states that the stakeholder process should provide the answers to key questions, such as, what constitutes sufficient liquidity to reinstate convergence bidding at the interties; whether the reinstatement should be evaluated on an intertie-specific basis; and whether any observed increased in liquidity is durable, seasonal, or merely episodic. SoCal Edison also states that the CAISO should define what would constitute adequate real-time liquidity and demonstrate that such liquidity exists, prior to reinstatement of virtual bids on the interties.[44]

30. Additionally, PG&E states that it has identified other issues that can exacerbate inconsistencies on interties nodes between day-ahead and 15-minute prices, and that these issues should be examined in the stakeholder process. First, PG&E states that unscheduled flows reflect a distortion between physical and financial power flows that impact 15-minutes prices only on intertie locations. PG&E explains that CAISO resolves unscheduled flows by curtailing intertie transactions that can have a significant impact on prices and might incent parties to place convergence bids in anticipation of price separation unrelated to market forces. Second, PG&E states that CAISO often adjusts power flow on interties through curtailments, line conformances, and load biases, and that these market interventions on interties can significantly impact scheduling of external transactions and discourage economic bidding.[45]

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[41] PG&E April 13 Comments at 6-7 (stating that CAISO should demonstrate benefits such as, increased competition, reduced market power, and increased day-ahead to 15-minute price convergence).

[42] PG&E May 20 Comments at 6-7.

[43] PG&E April 13 Comments at 4-5.

[44] SoCal Edison April 13 Comments at 4.

[45] PG&E May 20 Comments at 4-5.

31. Powerex states that it supports convergence bidding if implemented in a manner where it can be expected to converge prices and lead to more efficient dispatch.[46] While Powerex agrees with CAISO that at the present time it would be inappropriate to reinstate intertie convergence bidding, it asserts that CAISO has not accurately identified the impediments to reinstituting convergence bidding at the interties.[47] Powerex asserts that there are fundamental price formation issues that should be addressed in a stakeholder process and technical conference before convergence bidding at the interties is reinstated.[48]

32. Powerex asserts that the lack of intertie liquidity in the 15-minute market is a symptom of larger price formation and market design issues in the CAISO markets, and that these issues are the true impediment to reinstating intertie convergence bidding. Powerex asserts that the conclusion that price formation practices prevent intertie convergence bidding from leading to just and reasonable results is supported by the Department of Market Monitoring's own analysis, which Powerex argues shows that it is CAISO's failure to set 15-minute market prices in a manner that reflects applicable constraints that creates the arbitrage opportunities that CAISO cites as a reason for delaying the reinstatement of convergence bidding.[49] Furthermore, Powerex contends that the flaws in CAISO's price formation practices also drive external suppliers away from CAISO's markets, and are one of the causes of the lack of liquidity identified in CAISO's filing.[50] Powerex also states that the low liquidity was well-known and, therefore, it is not a new development for CAISO.[51]

33. To ensure that intertie convergence bidding is timely reinstated, Powerex supports a process whereby the Commission presides over further efforts by CAISO to identify and resolve the issues that are impeding the reintroduction of intertie convergence bidding.[52] Powerex states that when approving CAISO's 2011 proposal to suspend

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[46] Powerex April 13 Comments at 1.

[47] *Id.* at 1, 11-12.

[48] *Id.* at 13-15, 26-27.

[49] *Id.* at 18-19.

[50] *Id.* at 22.

[51] *Id.* at 11.

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

intertie convergence bidding, the Commission directed CAISO to pursue a "comprehensive, long-term structural solution" with stakeholders that permitted reinstatement of convergence bidding at the interties; notwithstanding, three years later, CAISO still has not developed a comprehensive long-term solution.[53] Powerex asserts that a comprehensive solution, including resolving the price formation issues discussed above, is unlikely to occur if the Commission accepts CAISO's request to be given the discretion to "explore" these issues in a stakeholder process, without additional guidance and oversight by the Commission. Powerex argues that Commission oversight and involvement going forward is essential, and, thus, urges the Commission to (1) direct CAISO to immediately establish an initial stakeholder process involving the price formation issues preventing the reinstatement of intertie convergence bidding; (2) direct CAISO to, within one month of concluding the stakeholder process, file with the Commission the stakeholder comments received and provide a detailed assessment of each of the issues raised; (3) convene a technical conference following the submission of CAISO's filing to identify the reform needed to reinstatement of convergence bidding; and (4) issue a post-technical conference order identifying areas where reform is needed and directing CAISO to develop and file tariff amendments addressing the issues identified by the Commission.[54]

2. <u>Comments in Support of Denying Waiver and Immediately Implementing Intertie Convergence Bidding</u>

34. SESCO and WPTF argue that CAISO's waiver request should be denied and that convergence bidding at the interties should be reinstated. They assert that the December 31 Informational Report did not provide a basis for CAISO to delay reinstating intertie convergence bidding on May 1, 2015, and argue that CAISO is now attempting to unnecessarily delay convergence bidding for an additional year, without adequate stakeholder vetting or due process.[55]

35. SESCO asserts that CAISO's request does not meet the requirements for a waiver, arguing that the request is not limited in scope, does not address a concrete issue, and has undesirable consequences. Specifically, SESCO argues that the waiver will double the time period during which convergence bidding has been withheld from market

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[53] *Id.* at 26.

[54] *Id.* at 26-28.

[55] SESCO April 13 Comments at 10-11 (SESCO Comments); WPTF April 8 Protest at 4-6.

participants.[56] As for addressing a concrete issue, SESCO asserts that the April 3 Supplemental Report did not provide substantial evidence to counter the fact that December 31 Informational Report stated that nothing was preventing CAISO from reinstating intertie convergence bidding on May 1, 2015.[57] SESCO argues that CAISO was aware of the May 1, 2015 deadline and, until recently, represented that it would honor it. In regards to the consequences of the waiver, SESCO argues that the waiver will continue to deny market participants the opportunity to hedge certain transactions.[58]

36. WPTF argues that CAISO's last minute change between the December 31 Informational Report and the April 3 Supplemental Report, and lack of any stakeholder vetting raise warning flags. WPTF states that many participants have been asking CAISO to address the liquidity issues at the interties in the 15-minute market well before the commencement of the 15-minute market. WPTF states that short of reverting back to block hour intertie schedules or bid cost recovery for intertie suppliers, there inherently is no quick fix to this situation.[59] WPTF also states that the April 3 Supplemental Report is wholly conceptual, and although the December 31 Informational Report offered to provide the Commission with new data, if applicable, no new market data was offered in the April 3 Supplemental Report. Yet, WPTF adds, CAISO seeks another "one-year pass" to withhold valuable market functionality, based solely on the April 3 Supplemental Report without prior review by stakeholders.[60] WPTF states that market participants were not "on notice" that CAISO would seek to delay reinstatement of convergence bidding at the interties.[61]

37. WPTF states that it does not believe that there are structural barriers preventing 15-minute market bids.[62] For example, WPTF claims that while transmission providers

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[56] SESCO Comments at 8.

[57] *Id.* (stating that the report presents three scenarios, but does not calculate the likelihood or extent that the market will be harmed if intertie convergence bidding is reinstated).

[58] *Id.* at 8-10.

[59] WPTF April 13 Protest at 5.

[60] *Id.* at 6.

[61] *Id.*

[62] *Id.* at 8.

must allow transmission to be scheduled in 15-minute increments, transmission providers do not sell 15-minute transmission products, which would cause market participants to incur hourly transmission costs for delivery of energy in a single 15-minute interval. WPTF states that these intertie price formulation problems have also added to the disincentives for a participant to submit 15-minute market bids.[63] WPTF contends that proposing to use liquidity to indicate whether or not intertie convergence bidding should be reinstated would create an new precedent.[64]

III. Discussion

A. Procedural Matters

38. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2015), the timely, unopposed motions to intervene serve to make the entities that filed them parties to the proceeding.

39. Pursuant to Rule 214(d) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214(d) (2015), the Commission will grant the CPUC's late-filed motion to intervene given its interests in the proceeding, the early stage of the proceeding, and absence of undue prejudice or delay.

40. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2015), prohibits an answer to a protest unless otherwise ordered by the decisional authority. We are not persuaded to accept the answers filed by PG&E, CAISO, and Powerex, and will, therefore, reject them.

B. Commission Determination

41. Pursuant to the Commission's authority under section 206 of the FPA, we find, effective as of the date of this order, that CAISO's tariff provisions reinstating convergence bidding at the interties are unjust and unreasonable. Consistent with that finding, we terminate the waiver and direct CAISO to submit a compliance filing, within 30 days of the date of this order, reflecting removal of the relevant tariff provisions. In particular, we find that, based upon the April 3 Supplemental Filing detailing insufficient economic bids on the interties and comments thereto, reinstating convergence bidding at the interties will result in market inefficiencies, as described below.

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[63] *Id.* at 8-9.

[64] *Id.* at 12.

42. The April 3 Supplemental Report demonstrated that there is a lack of economic bids at most interties, and under the previously accepted tariff provisions, the lack of economic bids creates incentives for convergence bidding entities to arbitrage the differences between congestion prices in the day-ahead market and the 15-minute market. The April 3 Supplemental Report explained that if there is intertie constraint congestion in the day-ahead market, but no economic bids in the 15-minute market, there generally will be no congestion price reflected in the locational marginal prices for the 15-minute market at those locations. In this situation, intertie convergence bids would first settle at a day-ahead market price that includes intertie congestion, these bids would then be liquidated at a 15-minute market price that reflects no intertie congestion. Convergence bidders would therefore have the incentive to take advantage of the structural differences between congestion prices in the day-ahead and 15-minute market, to the detriment of market efficiency. Further, in order to profit from these congestion price differences, these convergence bids at the interties could create counterflow that would increase the extent to which physical schedules exceed intertie scheduling limits.

43. Moreover, the April 3 Supplemental Report demonstrated that, under the existing tariff provisions, the lack of sufficient 15-minute market economic bids will decrease economic efficiency by increasing the need to manage real-time congestion through *pro rata* schedule cuts, rather than based on economic merit order of physical bids. Specifically, for interties that lack sufficient economic bids in the 15-minute market, congestion in the real-time market would be managed by hour-ahead curtailments made on a *pro rata* basis rather than on the basis of underlying costs of the intertie resources, thereby decreasing the economic efficiency of intertie schedules. Accordingly, we find, based upon current market conditions, the overall impact of implementing the previously accepted tariff provisions establishing convergence bidding at the interties would result in decreased economic efficiency, and, therefore, would fail to provide the desired benefits of both price convergence and improved market efficiency.

44. Further, in the March 2014 Order, the Commission accepted the proposal to delay convergence bidding at the interties for 12 months based on CAISO's representation that 12 months would give CAISO sufficient time to address any concerns. However, it is evident now that the concerns raised by the Commission in the March 2014 Order are not addressed by the existing tariff provisions. Although the data in the December 31 Informational Report supported the reinstatement of convergence bidding on the interties effective May 1, 2015, the subsequent April 3 Supplemental Report, which was the impetus for the waiver request, in fact raised the same type of issues that motivated the Commission to condition its acceptance of the relevant tariff revisions on CAISO submitting an informational report in the first place. As noted above, while the informational report was expected to "demonstrate that the new market structure is

providing the expected price convergence and that the issues that resulted in the suspension of intertie convergence bidding have been resolved," the record here shows that those issues persist.[65]

45. Most parties in this proceeding agree that the Commission should not allow intertie convergence bidding to resume until such time that it can be clearly demonstrated that doing so will improve market efficiency. We agree. Based on the record in this case, we find that until the issues surrounding the lack of economic bids at the interties are identified and resolved, implementing intertie convergence bidding provisions previously accepted by the Commission would be unjust and unreasonable. While WPTF disputes the scope and execution of the analysis in the April 3 Supplemental Report, it does not dispute the fact that the congestion costs and the associated price differences between the day-ahead and real-time markets will be transparent and provide an opportunity for arbitrage. We find that allowing the tariff provisions implementing intertie convergence bidding to be effectuated without resolution of the issues will result in an unjust and unreasonable outcome. Therefore, the tariff provisions previously accepted by the Commission establishing convergence bidding at the interties are hereby terminated as of the date of issuance of this order. Accordingly, we terminate the current waiver as of the date of this order, as it is no longer necessary, and direct CAISO to submit a compliance filing, within 30 days of the date of this order, to remove the previously accepted tariff provisions establishing convergence bidding at the interties.

46. Finally, we note that removal of the tariff provisions here is without prejudice to CAISO proposing convergence bidding at the interties in the future when it can be demonstrated to function properly. Indeed, we find that our action here will allow CAISO and its stakeholders a meaningful opportunity to explore the problems surrounding convergence bidding at the interties and develop a solution that functions properly.

<u>The Commission orders</u>:

(A) Pursuant to the authority contained in and subject to the jurisdiction conferred upon the Commission by section 402(a) of the Department of Energy Organization Act and by the FPA, particularly section 206 thereof, and pursuant to the Commission's Rules of Practice and Procedure and the regulations under the FPA (18 C.F.R., Chapter 1), the Commission hereby institutes a proceeding, in Docket No. EL15-98-000, concerning the justness and reasonableness of CAISO's tariff with regard to intertie convergence bidding, as discussed in the body of this order.

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[65] March 2014 Order, 146 FERC ¶ 61,204 at P 103.

(B) CAISO is hereby directed to submit a compliance filing to remove the tariff provisions establishing convergence bidding at the interties, within 30 days of the date of this order, as discussed in the body if this order.

(C) Waiver of tariff sections 30.9, 30.7.3.6.3, and 30.7.3.6.3.2 is hereby terminated, as discussed in the body of this order.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.