150 FERC ¶ 61,191
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

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

California Independent System Operator Corporation	Docket Nos. ER15-861-000 EL15-53-000

ORDER REJECTING PROPOSED TARIFF REVISIONS,
INSTITUTING A SECTION 206 PROCEEDING,
GRANTING EXTENSION OF WAIVER
AND DIRECTING COMPLIANCE FILING AND INFORMATIONAL REPORTS

(Issued March 16, 2015)

1. In this order, we reject proposed tariff revisions submitted on January 15, 2015 (January 15 Filing) by the California Independent System Operator Corporation (CAISO) under section 205 of the Federal Power Act (FPA).[1] The January 15 Filing would revise section 29.27 of the CAISO tariff to provide a 12-month transition period for each new entity joining the Energy Imbalance Market (EIM), during which CAISO would (1) waive the pricing parameters in sections 27.4.3.2 and 27.4.3.4 of its tariff; and (2) set the flexible ramping constraint relaxation parameter specified in tariff section 27.10 for the new EIM entity's balancing authority area (BAA) between $0 and $0.01. As discussed below, we reject the proposed revisions and institute a proceeding under section 206 of the FPA[2] to investigate the justness and reasonableness of the EIM provisions in CAISO's existing tariff related to the imbalance energy price spikes in PacifiCorp's BAAs and establish a refund effective date. As further discussed below, the Commission directs staff to hold a technical conference to explore the issues discussed herein. We also grant a limited extension of the waiver granted in the February 12, 2015 order in this proceeding (February 12 Order),[3] to extend the waiver from the date of this order until the refund effective date (90 days from the date of publication of notice of initiation of this proceeding in the *Federal Register*).

[1] 16 U.S.C. § 824d (2012).

[2] 16 U.S.C. § 824e (2012).

[3] *Cal. Indep. Sys. Operator Corp.*, 150 FERC ¶ 61,086 (2015).

I. Background

2. The EIM enables entities with BAAs outside of CAISO to voluntarily take part in the imbalance energy portion of the CAISO locational marginal price-based real-time electricity market alongside participants from within the CAISO BAA.[4] PacifiCorp's two BAAs—PacifiCorp East and PacifiCorp West—are the initial participants in the EIM.[5]

3. The EIM was fully activated on November 1, 2014, following a one-month test period, during which CAISO ran a real-time representation of the EIM in a parallel but non-binding production environment. On November 13, 2014, CAISO filed in Docket No. ER15-402-000 a petition (Initial Waiver Petition) seeking limited waiver of the pricing parameters in sections 27.4.3.2 and 27.4.3.4 of its tariff for the 90-day period from November 14, 2014 to February 12, 2015. In the Initial Waiver Petition, CAISO explained that transitional conditions in the EIM caused the transmission and system energy-balance constraints described in these tariff sections to bind more frequently than expected since the EIM began operation on November 1, 2014, resulting in high prices that were not always indicative of actual physical conditions on the system.[6] CAISO asserted that these high prices reflected challenges in PacifiCorp's providing timely and complete data to ensure system visibility under the new procedures, exacerbated by limitations on the resources available to PacifiCorp for use in the EIM and several forced outages of large EIM participating resources.[7]

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[4] *Cal. Indep. Sys. Operator Corp*., 147 FERC ¶ 61,231, *order on reh'g, clarification, and compliance*, 149 FERC ¶ 61,058 (2014) (conditionally accepting proposed tariff revisions to implement the EIM).

[5] *PacifiCorp*, 147 FERC ¶ 61,227, *order on reh'g, clarification, and compliance*, 149 FERC ¶ 61,057 (2014), *reh'g denied*, 150 FERC ¶ 61,084 (2015) (conditionally accepting in part and rejecting in part revisions to PacifiCorp's open access transmission tariff to enable participation in the EIM).

[6] Initial Waiver Petition at 3, 11.

[7] *Id*. at 8-11.

4. On December 1, 2014, the Commission issued an order in Docket No. ER15-402-000 (December 1 Order)[8] granting the limited waiver for the 90-day period from November 14, 2014 through February 12, 2015.[9] The Commission also directed CAISO to file informational reports at 30-day intervals during the waiver period, to monitor progress towards identifying and eliminating the problems giving rise to the Initial Waiver Petition.[10] CAISO submitted these informational reports on December 15, 2014 (December 15 Report), January 15, 2015 (January 15 Report), and February 19, 2015 (February 19 Report).[11]

5. On February 12, 2015, the Commission granted CAISO's request in the January 15 Filing for a limited extension of the waiver of the pricing parameters granted in the December 1 Order, effective February 13, 2015, and ending on the earlier of March 16, 2015 or the date the Commission issues a subsequent order in this proceeding.[12]

II. CAISO's January 15 Filing

6. In the January 15 Filing, CAISO proposes EIM pricing provisions in the CAISO tariff which would apply to each new entity joining the EIM (EIM Entity)[13] during such EIM Entity's initial year of EIM participation. First, proposed tariff section 29.27(b)(1) provides that CAISO will determine prices for intervals that experience transmission or system balance constraints within the new EIM Entity's BAA by using the last economic bid to establish the market clearing price, rather than using the existing tariff's $1,000/MWh penalty price.[14] Second, proposed tariff section 29.27(b)(2) states that, for

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[8] *Cal. Indep. Sys. Operator Corp.*, 149 FERC ¶ 61,194 (2014).

[9] On December 31, 2014, CAISO filed an additional waiver petition, which seeks to apply the same relief granted in the December 1 Order to the period from November 1, 2014 through November 13, 2014. This petition is currently pending in Docket No. ER15-817-000.

[10] December 1 Order, 149 FERC ¶ 61,194 at PP 22-23, 25-26.

[11] The December 15 and January 15 Reports are included as Attachments E and F to the January 15 Filing.

[12] February 12 Order, 150 FERC ¶ 61,086.

[13] An EIM Entity is a balancing authority that represents one or more EIM transmission service providers and that enters into an agreement with CAISO to enable the operation of the real-time market in its BAA.

[14] January 15 Filing at 15.

a 12-month transition period after a new EIM Entity commences operations in the EIM, CAISO will set the flexible ramping constraint relaxation parameter specified in tariff section 27.10 for the new EIM Entity's BAA between $0 and $0.01 (instead of $60).[15] CAISO notes that proposed revisions would also apply to PacifiCorp for the remainder of its first 12 months of participation in the EIM.[16]

7. CAISO asserts that it has learned from PacifiCorp's experience with EIM implementation that integration into the EIM is a "major paradigm shift" for new entrants and therefore warrants a learning period to ensure that information flows accurately and in a timely manner.[17] CAISO cautions that "anomalous results," like the price spikes experienced in the PacifiCorp BAAs, may result if such a transitional period is not implemented. CAISO provides figures, based on the data in the December 15 and January 15 Reports, which it claims demonstrate that, while the frequency of the issues causing the price spikes in PacifiCorp's BAAs has lessened over time, these issues have not been fully resolved.[18] CAISO also contends that the communications issues, limitations on resources available for use in the EIM, and forced outages that contributed to the price spikes experienced during the initial weeks of PacifiCorp's participation in the EIM may recur during the course of the year due to seasonal and system condition changes. According to CAISO, the findings in the December 15 and January 15 Reports further demonstrate that the prices resulting from the waiver granted in the December 1 Order are closely aligned with average prices in the Western bilateral markets, whereas the prices resulting from the EIM pricing parameters would have deviated materially from prices elsewhere in the West.[19] CAISO states that it and PacifiCorp have made progress in addressing the circumstances causing the price spikes, but asserts that a longer transition period is necessary to adjust practices and procedures based on lessons learned and seasonal challenges.[20]

8. CAISO submits that the proposed tariff revisions in the January 15 Filing relies on existing tariff-based mechanisms to permit new EIM Entities to gain operational experience with the EIM while still allowing prices to be based on economic price signals

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

[16] *Id*. at 2.

[17] *Id*. at 9.

[18] *Id*. at 9-12.

[19] *Id*. at 12-14.

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

reflected in market participants' bids, instead of administratively set tariff parameters.[21] CAISO asserts that the proposed 12-month transition period is preferable to requesting additional waivers and extensions on an *ad hoc* basis, and suggests that potential modifications to this transition period could be explored in the EIM enhancements stakeholder initiative.[22]

9. CAISO indicates that it held an expedited stakeholder process in December 2014.[23] While "stakeholders generally supported providing PacifiCorp with additional time beyond the current 90-day waiver period" to resolve the issues causing the price spikes, CAISO reports that some stakeholders raised concerns with various aspects of the proposed tariff amendment, including the length of the transition period and its applicability to all new entrants to the EIM.[24] CAISO states that it intends to provide additional transparency to market participants by voluntarily continuing the reporting requirements in the December 1 Order through the entire 12-month transition period on a quarterly basis.[25] CAISO notes that its proposal to stakeholders initially included an energy bid cap for EIM participating resources that would gradually increase during the 12-month transition period, but states that it tabled this proposal for further discussion in the EIM enhancements stakeholder initiative based on concerns from stakeholders and its own Department of Market Monitoring.

10. CAISO requests a waiver of the Commission's 60-day prior notice requirements[26] to accept the proposed tariff revisions in the January 15 Filing effective February 13, 2015.[27]

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[21] *Id*. at 16.

[22] *Id*. at 17.

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

[24] *Id*. at 16-17.

[25] *Id*. at 17.

[26] 18 C.F.R. § 35.11 (2014).

[27] January 15 Filing at 18-19.

III. Notice and Responsive Pleadings

11. Notice of the January 15 Filing was published in the *Federal Register*, 80 Fed. Reg. 3961 (2015), with interventions and protests due on or before January 26, 2015. Timely motions to intervene were filed by the California Municipal Utilities Association; the Modesto Irrigation District; the Cities of Anaheim, Azusa, Banning, Colton, Pasadena, and Riverside, California; the Sacramento Municipal Utility District; the Cities of Santa Clara, California and Redding, California, and the M-S-R Public Power Agency; Truckee Donner Public Utility District; and Pacific Gas and Electric Company. NV Energy, Inc. on behalf of its utility subsidiaries Nevada Power Company d/b/a NV Energy and Sierra Pacific Power Company d/b/a NV Energy (collectively, NV Energy), PacifiCorp, and Puget Sound Energy, Inc. (Puget) each filed a timely motion to intervene and comments. Western Power Trading Forum (WPTF) and Powerex Corporation (Powerex) each filed a timely motion to intervene and protest.[28] On January 27, 2015, the Alliance for Retail Energy Markets filed a motion for leave to intervene out-of-time. The Public Utilities Commission of Nevada and Exelon Corporation each submitted a motion to intervene out-of-time on January 28, 2015. On February 4, 2015, Powerex filed a motion to supplement and a supplement to its initial protest. WPTF filed a motion to supplement and a supplement to its initial protest on February 5, 2015. CAISO, PacifiCorp, and NV Energy each filed an answer to comments and protests on February 5, 2015, February 6, 2015, and February 9, 2015, respectively. CAISO filed a response to the supplemental protests on February 20, 2015. Powerex filed a response to CAISO's February 20, 2015 answer on February 25, 2015.

12. PacifiCorp and NV Energy each support the proposed transition period as an appropriate mechanism to provide actual operational experience to new entrants without subjecting their customers to potential pricing anomalies.[29] NV Energy asserts that 12 months is appropriate duration for this transition period because it will allow each new EIM Entity to gain experience with seasonal shifts.[30] PacifiCorp states that it also supports the proposal as applied to PacifiCorp's BAAs because the proposal will protect

[28] Comments submitted by Powerex, WPTF, PacifiCorp, and NV Energy regarding CAISO's alternative request for an extension of the waiver granted in the December 1 Order were addressed in the February 12 Order. February 12 Order, 150 FERC ¶ 61,086 at P 10.

[29] PacifiCorp Comments at 3; NV Energy Comments at 4.

[30] NV Energy Comments at 4.

its transmission customers for the balance of PacifiCorp's first year of participation in the EIM.[31]

13. Puget states that it supports the waiver granted in the December 1 Order, but asserts that CAISO's proposed transition period should last for a maximum of 12 months, based on performance metrics, as opposed to a fixed 12 month period.[32] Alternatively, Puget requests that the Commission grant CAISO's proposed transition period for six months and require CAISO to file a revised tariff with performance metrics at a later date.[33] Puget argues that shortening the transition period based on performance metrics will minimize the adverse reliability or pricing impacts caused by the tariff amendments. Puget also states that CAISO needs to provide more information in support of reducing the flexible ramping constraint relaxation parameter from $60 to between $0.00 and $0.01, as it is uncertain what effect that will have on the market.[34]

14. According to Powerex, the January 15 Filing seeks, in effect, to extend the temporary, case-specific waiver granted in the December 1 Order for a full year following PacifiCorp's entry into the EIM, with the addition of the proposed reduction in the flexible ramping constraint relaxation parameter, and to make this 12-month waiver a standard part of EIM implementation for any new EIM Entity.[35] Powerex suggests that the issues giving rise to the price spikes go well beyond transitional data, software, and coordination problems associated with the implementation of a new market.[36] Based on data in the January 15 Report, Powerex argues that the EIM has been persistently operating without sufficient participating resources to meet the intra-hour capacity and flexibility needs of the PacifiCorp BAAs, and that CAISO's proposal will mask this issue by eliminating tariff-based market outcomes.[37] Specifically, Powerex alleges that, as a result of CAISO setting the flexible ramping capacity requirement too low for the PacifiCorp BAAs and PacifiCorp repeatedly failing to meet this requirement, insufficient resources have been made available to the EIM to meet the full range of actual imbalance

[31] PacifiCorp Comments at 3-4.

[32] Puget Comments at 4-5.

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

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

[35] Powerex Protest at 6-7.

[36] *Id*. at 9-11.

[37] *Id*. at 13-16.

energy needs.[38] Powerex argues that CAISO's proposal will mask the symptoms of the lack of resources participating in the EIM, but will not address the root causes of the problem.[39] If CAISO and PacifiCorp do not believe that current conditions warrant suspending the EIM, Powerex urges the Commission to direct CAISO to apply the pricing provisions in its current tariff and take steps to address the lack of safeguards to ensure resource sufficiency in the EIM.[40]

15. Powerex argues that setting prices based on the marginal economic bid during periods with insufficient bids may not reflect actual costs because the market would not reflect the cost of imbalance energy that was procured outside the market to supplement the needs that could not be met through the market.[41] This would, Powerex contends, send suppressed price signals that would mute incentives for participation by third party resources and eliminate the incentives for an EIM Entity to ensure sufficient resources to meet system needs. Powerex asserts that this result would be inconsistent with Commission policy disfavoring leaning by EIM participants and encouraging market operators to take necessary steps to procure sufficient resources in advance of real-time to meet system needs, and could have reliability implications.[42] In addition, Powerex claims that the number of hours with emergency e-Tags has increased dramatically since the EIM commenced full operation, indicating that imbalance energy needs that cannot be met through the EIM due to lack of resource participation are triggering out-of-market purchases.[43] Powerex requests that the Commission reject CAISO's proposal and direct CAISO and PacifiCorp to commence a stakeholder process to develop market solutions to address resource insufficiency issues, such as increasing the flexible ramping requirement so that it more adequately meets system needs.[44] Finally, Powerex argues that PacifiCorp should be held responsible for ensuring that prices for imbalance energy remain just and reasonable, and suggests that PacifiCorp could cap the price of its

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[38] *Id*. at 12.

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

[40] *Id*. at 12.

[41] *Id*. at 16-21.

[42] *Id*. at 20-21 (citing *Southwest Power Pool, Inc.*, 112 FERC ¶ 61,303, at P 26 (2005)).

[43] *Id*. at 20-21.

[44] *Id*. at 21-24.

imbalance energy charges at 150 percent of the prices that would have prevailed based on the tariff rates in place prior to EIM implementation.[45]

16. WPTF asserts that allowing all future EIM Entities a 12-month "safety net" encourages a rush to unprepared entry.[46] WPTF states that it supports a robust and deliberate market simulation, in conjunction with a significant period of parallel, non-binding operation, with go-live predicated on success metrics, even if this approach delays entry into the EIM. WPTF argues that CAISO errs in its claim that the current tariff waiver brings EIM prices in the PacifiCorp BAAs more closely in line with prices in the bilateral market in the West.[47] Specifically, WPTF asserts that CAISO's comparison of EIM pricing under the waiver to InterContinental Exchange (ICE) average Day Ahead prices indicates that the waiver provisions are suppressing prices in the EIM.[48] WPTF states that a day-ahead average of geographically dispersed western trading hubs should be less volatile than real-time prices within a single BAA. According to WPTF, CAISO's characterization that prices in the PacifiCorp EIM BAA are similarly free of volatility compared to ICE averages shows that the waiver is not producing valid market results but artificially suppressing prices.

17. Like Powerex, WPTF argues that CAISO should use market mechanisms, rather than continued price suppression, to ensure that there are sufficient resources available to meet capacity and flexibility needs in the EIM.[49] WPTF argues that CAISO should increase the quantity of ramping resources in the EIM, and recommends that PacifiCorp open its borders for third-party participation in the EIM, which would increase the number of resources and bids within the EIM. WPTF also asserts that PacifiCorp is the proper entity to address issues related to the impact of EIM prices on PacifiCorp customers.[50]

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[45] *Id*. at 23-24.

[46] WPTF Protest at 3-4.

[47] *Id*. at 5-7.

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

[49] *Id*. at 7-9.

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

18. WPTF also argues that CAISO has not provided adequate support for extending the current waiver of pricing parameters in PacifiCorp's BAAs for an additional nine months.[51] WPTF notes that CAISO did not foresee the need for an extended waiver period in the Initial Waiver Petition, and points to indications in the December 15 and January 15 Reports that "significant progress" has been made in correcting the issues that resulted in the initial need for the waiver request.[52] WPTF thus concludes that the current drivers of constraint relaxation are not data and communication issues, but are supply and demand fundamentals.[53] WPTF argues that it is inappropriate for CAISO to suppress prices when there are insufficient resources available to meet the needs of the EIM. WPTF opposes the relaxation of the flexible ramping constraint relaxation parameter from $60 to between $0.00 and $0.01 because CAISO has not provided an explanation for why it is not appropriate to reflect the flexible ramping constraint shortage in energy prices when the flexible ramping constraint is violated.[54] Finally, WPTF asserts that CAISO has not supported its claim that changing conditions over the course of a year necessitate a year-long transition period, given that the bulk of price excursions in the EIM do not appear to have been driven by the types of seasonal problems CAISO describes.[55]

19. In their supplemental protests, Powerex and WPTF state that they have recently learned that CAISO has been engaged in unilateral action since November 1, 2014 to set prices in the PacifiCorp BAAs at the same marginal economic bid price that CAISO has here petitioned for Commission authority to impose.[56] Specifically, they allege that CAISO revised its EIM business practice manual, just prior to commencement of the EIM to provide that CAISO would not apply the pricing parameters in section 27 of its tariff during intervals in which PacifiCorp failed the flexible ramping capacity test. Powerex therefore requests that the Commission institute a separate proceeding under section 206 of the FPA to direct CAISO to show cause why it should not be found to have violated its tariff.[57]

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[51] *Id*. at 9-12.

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

[53] *Id*. at 10-11.

[54] *Id*. at 11.

[55] *Id*. at 11-12.

[56] Powerex Supplemental Protest at 4-16; WPTF Supplemental Protest at 3-4.

[57] Powerex Supplemental Protest at 14-16.

20. In their answers, CAISO, PacifiCorp, and NV Energy each deny Powerex's and WPTF's suggestions that the price spikes experienced in the EIM reflect inadequate resource sufficiency, and maintain instead that the anomalous prices do not reflect actual market conditions in most circumstances and are primarily due to transitional conditions.[58] CAISO cites statements from the informational reports submitted by its Department of Market Monitoring in Docket No. ER15-402-000 to maintain that EIM prices have been highly competitive during most intervals, and that the EIM is performing well overall.[59] CAISO notes that even under the transitional pricing mechanism, if a market participant submits a bid as high as $1,000/MWh and that bid is selected as economic because system and market conditions warrant its selection, that bid will still set prices in the EIM.[60] CAISO acknowledges that locational marginal pricing provides a better indicator of the actual use of energy at a geographic location, but notes that there are no existing indices to reflect such prices other than CAISO's own prices, and defends its use of the ICE index as an illustration that the waiver is not producing extreme and unreasonable prices.[61] CAISO argues that the proposed transition period will not mute incentives to increase participation because PacifiCorp has increased its participation in the EIM even during the 90-day waiver period.[62]

21. CAISO maintains that a year-long transition period is necessary given differences in operational challenges between seasons, using the example of issues caused by changes in personnel during the holiday season.[63] CAISO states that the Commission previously approved a similar 12-month period for a transitional price cap and price floor to provide sufficient time to evaluate market outcomes under both peak and non-peak conditions.[64]

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[58] CAISO Answer at 2-3, 5-7, 10-14; PacifiCorp Answer at 4-8; NV Energy Answer at 4-5.

[59] CAISO Answer at 3, 11-12.

[60] *Id*. at 7.

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

[62] *Id*. at 13.

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

[64] *Id*. (citing *Cal. Indep. Sys. Operator Corp.*, 126 FERC ¶ 61,082, at P 20 (2009)).

22. According to CAISO, Puget misunderstands the proposal to reduce the flexible ramping constraint relaxation parameter.[65] CAISO explains that it will apply the existing flexible ramping constraint relaxation parameter ($60) in the scheduling run and will set the flexible ramping constraint relaxation parameter to an amount between $0 and $0.01 only in the pricing run.[66] According to CAISO, this will allow the market software to continue to ensure that the market has sufficient flexibility and the parameter does not serve as a price floor. CAISO also states that the flexible ramp sufficiency test is performed prior to the scheduling run and pricing run, and that CAISO will freeze transfers to other areas if CAISO determines at that time that the EIM Entity has not bid sufficient flexible capacity. As with the pricing anomalies, CAISO asserts that the incidences of ramping inflexibility indicated in the December 15 and January 15 Reports is related to PacifiCorp's learning curve and do not reflect actual market conditions.[67]

23. In addition, CAISO asserts that Powerex's and WPTF's supplemental protests have nothing to do with whether the proposed tariff revisions are just and reasonable and should therefore be rejected as beyond the scope of this proceeding.[68]

24. PacifiCorp asserts that it has at all times maintained reliability in its BAAs and that there is no evidence to suggest that it has failed to maintain adequate reserves, including sufficient flexible ramping capacity, or suffered area control error violations since the EIM commenced operation.[69] PacifiCorp asserts that the pricing issues were caused primarily by the fact that CAISO's model did not reflect the full measure of flexible reserves available to the PacifiCorp BAAs due to a number of factors, none of which involved an actual shortage of flexible ramping capacity or PacifiCorp failing to take actions required by its OATT. PacifiCorp asserts that the EIM is currently providing benefits to customers of both CAISO and PacifiCorp, explaining that power has flowed bi-directionally both from PacifiCorp to CAISO and from CAISO to PacifiCorp.[70] PacifiCorp states that the adjusted EIM prices have been consistent with or below the proxy prices utilized by PacifiCorp to settle imbalances under Schedules 4 and 9 of its OATT.[71] PacifiCorp contests Powerex's allegations that there has been an increase in

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[65] *Id*. at 20-23.

[66] *Id*. at 20-21.

[67] *Id*. at 22-23.

[68] *Id*. at 3, 16-17.

[69] PacifiCorp Answer at 6.

[70] *Id*. at 9.

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

utilization of emergency e-Tags necessitated by EIM operations.[72] To the contrary, PacifiCorp contends that emergency e-Tags associated with capacity needs in the EIM have actually decreased in volume since the EIM commenced operations, and suggests that the need for emergency e-Tags will decrease even further as CAISO and PacifiCorp improve EIM performance and continue to calibrate operations with the new systems.

25. PacifiCorp asserts that a 12-month transition period would be warranted even with extensive testing and parallel operation prior to commencement, as no amount of testing can substitute for experience during actual operation.[73] PacifiCorp argues that the alternative remedies suggested by WPTF and Powerex will not provide sufficient protection to customers.[74] In particular, Pacificorp asserts that carrying additional reserves would be unnecessary, as its current levels of reserves are adequate. PacifiCorp notes that it is currently exploring its ability to facilitate economic participation at interties, but maintains that not being able to do so at this time does not render CAISO's proposal unjust and unreasonable. Finally, PacifiCorp asserts that capping its imbalance energy charges or engaging in "price smoothing" would create the risk of a mismatch between PacifiCorp's payments to and receipts from CAISO and its sub-allocation of charges and payments to its transmission customers. PacifiCorp acknowledges that Puget's alternative proposals might be reasonable, but states that Puget has not provided sufficient information regarding the specific performance metrics, and that accepting the proposal for only a six-month period would not afford CAISO sufficient time to file for acceptance of the second six-month period, which it would need to do at least 60 days prior to expiration of the first six-month period (which would end on May 1, 2015, since PacifiCorp commenced EIM operations on November 1, 2015).[75]

26. NV Energy opposes WPTF's request for a longer testing and parallel operation period, asserting that it has allotted an appropriate period for end-to-end testing followed by a month of market simulation and then a month of parallel operation, and that prolonging the parallel operation period would delay benefits to NV Energy customers and impose significant costs on NV Energy and CAISO.[76] NV Energy contends that the proposed tariff revisions ensure that new entities joining the EIM can transition into the market with assurance that transmission customers within their BAAs will not be exposed

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[72] *Id*. at 10-13.

[73] *Id*. at 14-15, 17-18.

[74] *Id*. at 15-17.

[75] *Id*. at 18-20.

[76] NV Energy Answer at 3-4.

to unrepresentative prices, while also permitting suppliers to participate with confidence that their bids will not be mitigated unless any of the previously-existing locational market power mitigation measures apply.[77] NV Energy asserts that none of the alternatives proposed by protestors to this proceeding support a finding that CAISO's proposed tariff amendment is not just and reasonable.[78]

IV. Discussion

A. Procedural Matters

27. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2014), prohibits an answer to a protest or answer unless otherwise ordered by the decisional authority. We will accept the answers submitted by PacifiCorp and NV Energy, and the answer filed by CAISO on February 5, 2015, because they have provided information that assisted us in our decision-making process.[79]

28. We reject the additional pleadings filed by Powerex and WPTF on February 4, 2015 and February 5, 2015, respectively. Although characterized as "supplements" filed pursuant to Rule 215 of the Commission's Rules of Practice and Procedure,[80] we find that Powerex's and WPTF's additional pleadings are not amendments to the initial protests filed by these parties but are, in fact, new protests filed out of time. Because we reject the supplemental protests filed by Powerex and WPTF, we are not persuaded to accept the additional answer filed by CAISO on February 20, 2015 in response to these pleadings, as well as Powerex's February 25, 2015 answer to that answer.

B. Commission Determination

29. The Commission rejects CAISO's proposed tariff revisions. We find that CAISO has not supported as just and reasonable its proposal to waive pricing parameters and reduce the flexible ramping constraint relaxation parameter to $0 for all new entrants to the EIM. CAISO has also failed to show that it is just and reasonable to apply this same

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

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

[79] The timely and out-of-time motions to intervene were previously accepted by the Commission in the February 12 Order. February 12 Order, 150 FERC ¶ 1,086 at P 12.

[80] 18 C.F.R. § 385.215 (2014). Rule 215(a) permits participants to a proceeding to modify their pleadings by filing an amendment that conforms to the requirements applicable to the pleading to be amended.

treatment in PacifiCorp's BAAs for the remainder of the first full 12-months of PacifiCorp's participation in the EIM.

30. In the Initial Waiver Petition, CAISO characterized the transitional conditions giving rise to the price anomalies as limited and identifiable, and expressed confidence that CAISO and PacifiCorp would be able to resolve these issues within the 90-day waiver period.[81] Now, CAISO seeks to extend the duration of such waiver to PacifiCorp's entire first year of operation with tariff provisions proposed in the January 15 Filing, and further seeks to codify this treatment in its tariff, expand the treatment to include the flexible ramping constraint relaxation parameter, and apply this treatment to any new entity joining the EIM. CAISO's reversal of position suggests that it misjudged the gravity of the issues underlying the initial price anomalies, and we are not persuaded that simply granting all new EIM Entities a year-long waiver of the pricing and flexible ramping constraint relaxation parameter will appropriately address the circumstances giving rise to these issues. In particular, CAISO has failed to establish that the imbalance energy price spikes are continuing to occur primarily as a result of the transitional issues it identifies, and therefore has not shown that waiving the scarcity pricing provisions for a full year is responsive to the issues causing the price spikes. We share protestors' concerns that waiving parameters intended to send price signals to the market to increase supply during shortage conditions could have the ultimate effect of masking the effects of the issues underlying the price anomalies. In addition, CAISO's proposal does not contain any measures to ensure that new entrants joining the EIM are able to confirm market readiness and identify operational issues prior to full activation. In light of these concerns, we reject CAISO's proposed tariff revisions.

31. Further, we find that concerns regarding the imbalance energy price spikes experienced during PacifiCorp's initial months of participation in the EIM merit further consideration. Based upon developments to this point, including CAISO's continued requests for waiver and the circumstances leading to the instant filing, as summarized above, we find it necessary to address the underlying issues affecting imbalance energy prices in PacifiCorp's BAAs, and to identify and resolve issues affecting new entrants to the EIM prior to the start of market operations for new EIM Entities. We are concerned that CAISO's tariff does not address those issues and because it does not contain measures to ensure that new entrants joining the EIM are able to confirm market readiness and identify operational issues prior to full activation. Accordingly, pursuant to our authority under section 206 of the FPA, we find that the existing EIM provisions in CAISO's tariff related to the imbalance energy price spikes in PacifiCorp's BAAs are unjust and reasonable, and we will institute an investigation under section 206 of the FPA

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[81] Initial Waiver Petition at 11; Answer to Comments of the California Independent System Operator Corporation, Docket No. ER15-402-000, at 6 (filed Nov. 19, 2014).

in Docket No. EL15-53-000 to develop a record upon which the Commission may address issues related to the imbalance energy price spikes in PacifiCorp's BAAs. We will direct staff to convene a technical conference to facilitate the development of a just and reasonable solution. The details of the technical conference will follow in a subsequent notice.

32. We note that protestors in this proceeding have expressed concern that the price anomalies may reflect a lack of sufficient resources participating in the EIM and other issues that do not fall within the transitional issues (such as PacifiCorp's learning curve with communicating timely and accurate information, and the need to make metering upgrades to bring additional resources online). CAISO acknowledges that, in addition to the communications issues, the price anomalies also have been caused by limitations on the resources available to PacifiCorp for use in the EIM and temporary supply deficiencies caused by several forced outages of large EIM participating resources.[82] While CAISO and the protestors differ significantly in their respective assessments of the extent to which supply and resource insufficiency issues may be contributing to the price anomalies, we are concerned that CAISO's proposed tariff revisions do not include long-term measures to ensure robust participation and economically-driven price signals in the EIM. We believe that the technical conference directed in this proceeding will help identify the underlying issues and thereby help ensure development of an appropriate solution.

33. In cases where, as here, the Commission institutes an investigation on its own motion under section 206 of the FPA, section 206(b) requires that the Commission establish a refund effective date that is no earlier than the date of publication by the Commission of notice of its intention to initiate such proceeding nor later than five months after the publication date.[83] We will establish a refund effective date of 90 days from the date that notice of initiation of this section 206 proceeding is published in the *Federal Register*.

34. Further, although we are directing a technical conference to further explore certain EIM pricing issues, given the challenges experienced during PacifiCorp's implementation into the EIM, as discussed above, we conclude that readiness safeguards are immediately necessary prior to full activation of any new EIM Entity in the EIM. As CAISO acknowledges, integration into the EIM represents "a major paradigm shift" for new EIM Entities.[84] We therefore direct CAISO to submit a compliance filing within 60 days of

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[82] January 15 Filing at 6-7.

[83] 16 U.S.C. § 824e(b) (2012).

[84] January 15 Filing at 9.

issuance of this order, to revise the EIM provisions in its tariff to include requirements to ensure readiness prior to new EIM Entities commencing EIM operations. Such revisions should include: (1) a robust market simulation and appropriate period of parallel operation to ensure that new entities joining the EIM have adequate opportunity to identify and resolve operational issues prior to full activation; and (2) a requirement that CAISO and the new entrant each submit a market readiness certificate at least 30 days prior to full activation in the EIM, certifying the readiness of the new EIM Entity's processes and systems.[85] CAISO should develop measurable readiness criteria through a collaborative process with its stakeholders, upon which effectiveness of the new EIM Entity's entry into the EIM can be predicated.[86]

35. The Commission understands that, even with more rigorous testing and parallel operation period, CAISO and the new EIM Entity may not be able to identify all operational issues prior to actual operation. However, we expect that potential new entrants to the EIM are currently monitoring and learning from PacifiCorp's experience. Accordingly, should CAISO propose to include in its tariff a transitional period similar to its proposal in the January 15 Filing, it must be able to demonstrate that any such proposal is commensurate with the need to address a new entrant's post-operation "learning curve."

36. We will also grant a limited extension of the waiver previously extended in the February 12 Order. Specifically, the Commissions grants limited waiver of section 27.4.3.2 and the second sentence of section 27.4.3.4 of CAISO's tariff for constraints that are within PacifiCorp's BAAs or affect EIM transfers between PacifiCorp's BAAs. This limited waiver is effective from the date of this order (when the waiver would have otherwise expired), until the refund effective date established pursuant to section 206(b) of the FPA in this proceeding (i.e., 90 days from the date of publication of notice of initiation of this proceeding in the *Federal Register*).[87]

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[85] The Commission will require that others that are in the process of joining the EIM must certify their market readiness by filing a sworn affidavit from an officer of the company 30 days prior to the company joining the EIM attesting that the new EIM members' system is ready, including all communication systems and transparency to CAISO of unit status.

[86] *See Cal. Indep. Sys. Operator Corp.*, 116 FERC ¶ 61,274, at PP 1414-1415 (2006), *reh'g and clarification*, 119 FERC ¶ 61,076, at P 188 (2007) (requiring CAISO to submit a readiness certification and address stakeholder concerns about readiness prior to commencing its Market Redesign and Technology Upgrade, and accepting CAISO's proposal to develop measurable readiness criteria through a collaborative process).

[87] The waiver granted in this order is limited to an extension of the same waiver of *(continued ...)*

37. The Commission has previously granted waivers of tariff provisions in situations where, as relevant here: (1) the waiver is of limited scope; (2) a concrete problem needed to be remedied; and (3) the waiver did not have undesirable consequences, such as harming third parties.[88] We find that a further extension of the waiver requested in the January 15 Filing meets these criteria. Specifically, we continue to find, for the same reasons enumerated in the February 12 Order, that CAISO's requested waiver is of limited scope, addresses a concrete problem, and will not have undesirable consequences, such as harming third parties.[89] The requested waiver pertains only to the PacifiCorp BAAs and will apply only for the period of time between the date of this order and the refund effective date. The December 15, January 15, and February 19 Reports demonstrate that the circumstances underlying the price spikes have not been fully resolved, and suggest that EIM participants in PacifiCorp's BAAs would be at risk of experiencing similar anomalous pricing were the waiver to expire prior to the refund effective date. Extending the waiver for this limited period will provide CAISO and PacifiCorp additional time to continue to address the issues giving rise to the price spikes pending the development of a longer-term solution pursuant to the FPA section 206 proceeding instituted in this order. Finally, we conclude that extending the waiver will not lead to undesirable consequences. While WPTF and Powerex raise concerns with CAISO's proposal to extend the waiver for an additional nine months under the proposed tariff amendment, Powerex acknowledges, and we agree, that a limited extension of the waiver is appropriate to avoid exposing customers to further price spikes while developing solutions to address the issues underlying these price spikes.

38. We further accept CAISO's offer to continue submitting informational reports on the performance of the EIM, as directed in the December 1 Order.[90] Accordingly, we will direct CAISO to continue submitting these reports at 30-day intervals until the issuance of a Commission order concluding the FPA section 206 investigation initiated in this proceeding, or a directive from the Commission that CAISO may cease submitting the informational reports, whichever is earlier.[91] Given the discrepancies between

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pricing parameters in these tariff sections granted in the December 1 Order. As discussed above, we do not grant CAISO's request to revise its tariff to set the flexible ramping constraint relaxation parameter specified in tariff section 27.10 between $0 and $0.01.

[88] *See, e.g.*, December 1 Order, 149 FERC ¶ 61,194 at PP 22-23; *PJM Interconnection, L.L.C.*, 146 FERC ¶ 61,078, at P 38 (2014); *Cal. Indep. Sys. Operator Corp.*, 146 FERC ¶ 61,218, at P 22 (2014).

[89] February 12 Order, 150 FERC ¶ 61,086 at PP 13-14.

[90] December 1 Order, 149 FERC ¶ 61,194 at PP 25-26.

[91] These reports will not be noticed for comment or require Commission action.

CAISO's and protestors' assessments of the nature and gravity of the issues giving rise to the price anomalies discussed herein, we direct CAISO to refine the information in these reports to assist the Commission and the parties in determining the extent to which the price spikes continue to be caused by transitional issues, and the extent to which they may be triggered by lack of adequate supply in the EIM. Specifically, in addition to identifying the magnitude and frequency of events where the $1,000/MWh price would have occurred but for the waiver, including the time, duration, cause, and affected node(s) and load aggregation points, we direct CAISO to expressly identify, for each such event, whether the cause was due to transitional issues or was due to insufficient supply of resources bid into the EIM. Furthermore, we direct CAISO to clarify the information presented in the tables included in Attachment A, Section 2 of the future reports. At a minimum, the clarifications should: (1) differentiate supply deficiencies from transitional issues; (2) provide concise information on required remedial measures, execution responsibility, completion time frame and status; and (3) provide transparent identification of the frequency and market impact of each root cause issue. Finally, we note CAISO's assertion that "[o]perational challenges differ between seasons and may require different operational or business process revisions that cannot be identified until actual system conditions occur."[92] We direct CAISO to identify any such seasonal challenges that occur during the reporting period, and describe the operational or business process revisions planned or implemented, as applicable, to address such issues.

The Commission orders:

(A) CAISO's proposed tariff revisions are hereby rejected, as discussed in the body of this order.

(B) CAISO is hereby directed to submit a compliance filing within 60 days of the date of this order, as discussed in the body of this order.

(C) Pursuant to the authority contained in and subject to the jurisdiction conferred upon the Federal Energy Regulatory 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 I), the Commission hereby institutes a proceeding in Docket No. EL15-53-000, as discussed in the body of this order.

(D) Commission staff is hereby directed to convene a technical conference to be held at a date specified in a subsequent notice, as discussed in the body of this order.

[92] January 15 Filing at 17; CAISO Answer at 18.

(E) The Secretary shall promptly publish in the *Federal Register* a notice of the Commission's initiation of section 206 proceedings in Docket No. EL15-53-000.

(F) The refund effective date established pursuant to section 206(b) of the FPA will be 90 days from the date of publication in the *Federal Register* of the notice discussed in Ordering Paragraph (E) above.

(G) CAISO's request for an extension of the limited waiver of sections 27.4.3.2 and 27.4.3.4 of its tariff is hereby granted, as discussed in the body of this order.

(H) CAISO is hereby directed to file informational reports, as discussed in the body of this order

By the Commission.

(S E A L)

Kimberly D. Bose,
Secretary.