

153 FERC ¶ 61,104
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 No. ER15-2565-000

ORDER ON TARIFF REVISIONS

(Issued October 29, 2015)

1. On August 28, 2015, pursuant to section 205 of the Federal Power Act (FPA),¹ the California Independent System Operator Corporation (CAISO) submitted proposed tariff amendments (August 28 Filing) to provisions in the CAISO tariff regarding the Energy Imbalance Market (EIM) to allow a transition period for new EIM Entities during the first six months of EIM participation. In this order, we accept the proposed tariff revisions, subject to condition, to become effective November 1, 2015, as requested.

I. Background

2. Since its implementation in 2014, the EIM has enabled entities with balancing authority areas (BAAs) outside of CAISO to voluntarily take part in the imbalance energy portion of the CAISO locational marginal price (LMP)-based real-time market alongside participants from within the CAISO BAA.² PacifiCorp's two BAAs were the initial participants in the EIM, commencing financially-binding operations on

¹ 16 U.S.C. § 824d (2012).

² *Cal. Indep. Sys. Operator Corp.*, 147 FERC ¶ 61,231, *order on reh'g*, 149 FERC ¶ 61,058 (2014).

November 1, 2014.³ NV Energy is currently undertaking preparations to join the EIM,⁴ and Puget Sound Energy, Inc. (Puget) and the Arizona Public Service Company (APS) have stated their intentions to join the EIM on October 1, 2016. Both Puget and APS have executed implementation agreements with CAISO.⁵ In addition, Portland General Electric⁶ and Idaho Power Company⁷ have announced plans to pursue EIM participation.

3. Following the implementation of the EIM in November 2014, CAISO reported that certain conditions arose that caused the transmission and power balance constraints described in sections 27.4.3.2 and 27.4.3.4 of the CAISO tariff to bind more frequently than expected. CAISO asserted that the binding of these constraints resulted in atypically high prices in the fifteen minute and five-minute markets in the PacifiCorp BAAs, which did not reflect actual physical conditions on the system.⁸ As a result, on November 13, 2014, CAISO filed in Docket No. ER15-402-000 a petition seeking limited waiver of the pricing parameters in sections 27.4.3.2 and 27.4.3.4 of its tariff for a 90-day period from

³ *PacifiCorp*, 147 FERC ¶ 61,227 (conditionally accepting in part and rejecting in part revisions to PacifiCorp's open access transmission tariff to enable participation in the EIM), *order on reh'g*, 149 FERC ¶ 61,057 (2014), *reh'g rejected*, 150 FERC ¶ 61,084 (2015).

⁴ *Nevada Power Co.*, 151 FERC ¶ 61,131 (2015) (conditionally accepting revisions to NV Energy's open access transmission tariff to enable participation in the EIM).

⁵ *See Cal. Indep. Sys. Operator Corp.*, 151 FERC ¶ 61,158 (2015) (accepting EIM implementation agreement between CAISO and Puget); *Cal. Indep. Sys. Operator Corp.*, 152 FERC ¶ 61,090 (2015) (accepting EIM implementation agreement between CAISO and APS).

⁶ CAISO September 18, 2015 Market Notice: ISO Welcomes Portland General Electric Plans to Pursue EIM, available at: <https://www.caiso.com/Documents/ISOWelcomesPortlandGeneralElectricPlanstoPursueEIM.htm>.

⁷ CAISO September 25, 2015 Market Notice: ISO Welcomes Idaho Power Plan to Explore EIM, available at: <https://www.caiso.com/Documents/ISOWelcomesIdahoPowerPlanToExploreEIM.htm>.

⁸ CAISO August 28 Filing at 6.

November 14, 2014 to February 12, 2015. In several subsequent orders, the Commission granted limited extensions of the waiver of the pricing parameters.⁹

4. On January 15, 2015, in Docket No. ER15-861-000, CAISO filed a proposed tariff amendment to provide a 12-month transition period to apply to each new entity joining the EIM (EIM Entity) during its initial year of EIM participation. During this transition period, CAISO proposed that prices for intervals that experience transmission or system balance constraints within the new EIM Entity's BAA would be determined using the last economic bid to establish the market clearing price, rather than using the tariff's \$1,000/MWh penalty price. CAISO also proposed setting 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).

5. On March 16, 2015, the Commission issued an order rejecting CAISO's proposal for a 12-month transition period for new EIM Entities (March 16 Order).¹⁰ In addition, the Commission found that the EIM provisions in CAISO's tariff related to the imbalance energy price spikes in PacifiCorp's BAAs were unjust and unreasonable and instituted a proceeding under section 206 of the FPA¹¹ to address issues related to the imbalance energy price spikes in PacifiCorp's BAAs.¹² The Commission also directed CAISO to revise the EIM provisions in its tariff to include requirements to ensure readiness prior to new EIM Entities commencing EIM operations. On April 9, 2015, Commission staff held a technical conference to discuss issues related to the underlying causes of the price spikes.

6. Following the April 9 technical conference, CAISO submitted two proposals to the Commission to address several challenges that contributed to the anomalous price spikes in the PacifiCorp BAAs. On May 6, 2015, CAISO submitted proposed tariff revisions in compliance with the March 16 Order to set forth readiness criteria for new EIM Entities.

⁹ On December 1, 2014, the Commission issued an order in Docket No. ER15-402-000 granting CAISO's request for limited waiver for the 90-day period from November 14, 2014 through February 12, 2015. *Cal. Indep. Sys. Operator Corp.*, 149 FERC ¶ 61,194 (2014). Additionally, on February 12, 2015, the Commission granted CAISO's request for a limited extension of the waiver of the pricing parameters granted in the December 1 Order, effective February 13, 2015. *Cal. Indep. Sys. Operator Corp.*, 150 FERC ¶ 61,086 (2015).

¹⁰ *Cal. Indep. Sys. Operator Corp.*, 150 FERC ¶ 61,191 (2015) (March 16 Order).

¹¹ 16 U.S.C. § 824e (2012).

¹² March 16 Order, 150 FERC ¶ 61,191.

On July 21, 2015, the Commission accepted in part and rejected in part CAISO's readiness proposal and directed CAISO to, among other things, include the readiness criteria developed through the stakeholder process in its tariff.¹³ On August 28, 2015, CAISO submitted additional readiness measures in compliance with the Commission's directives.¹⁴ Separately, on August 19, 2015, CAISO submitted proposed tariff revisions to enable the EIM to recognize and account for capacity available to EIM Entities to resolve power balance infeasibilities in their own BAAs (EIM Available Balancing Capacity).¹⁵ Both proposals are currently pending before the Commission.¹⁶

II. CAISO's Filing

7. In the instant filing, CAISO submits revisions to section 29.7 of its tariff to provide a six-month transition period during which the pricing of energy in the BAA of a new EIM Entity is not subject to the pricing parameters that normally apply when the market optimization relaxes a transmission constraint or the power balance constraint in clearing the real-time market. Instead, during the proposed six-month transition period, CAISO will clear the market based on the marginal economic energy bid.¹⁷

8. In addition, CAISO proposes to set the Flexible Ramping Constraint relaxation parameter for the new EIM Entity's BAA between \$0 and \$0.01 during the transition period to allow its market software to determine the marginal energy bid price. CAISO states that its proposed revisions are intended to provide new EIM Entities a six-month period of the same waiver treatment that the Commission had previously granted for the PacifiCorp BAAs. That waiver is set to expire upon CAISO's implementation of the

¹³ *Cal. Indep. Sys. Operator Corp.*, 152 FERC ¶ 61,063 (2015).

¹⁴ CAISO, Compliance Filing, Docket No. ER15-861-004 (filed Aug. 28, 2015).

¹⁵ CAISO, Compliance Filing, Docket No. ER15-861-003 (filed Aug. 19, 2015). On September 24, 2015, the Commission issued a deficiency letter seeking additional information regarding the revisions proposed in CAISO's August 19, 2015 compliance filing.

¹⁶ While CAISO has filed a certificate attesting that CAISO and NV Energy have met all readiness criteria necessary to begin EIM operations in Docket No. ER15-861-005, the Commission has not issued an order on CAISO's proposed readiness criteria or proposed effective date in Docket No. ER15-861-004. *Nevada Power Co.*, 151 FERC ¶ 61,131, at PP 100, 196 (2015).

¹⁷ CAISO August 28 Filing at 3.

proposed EIM Available Balancing Capacity proposal currently pending before the Commission in Docket No. ER15-861-003.¹⁸

9. CAISO asserts that it has developed robust and rigorous readiness criteria that will ensure readiness to the extent possible of people, processes, and systems prior to the time a new EIM Entity commences financially-binding operations. According to CAISO, the improved readiness requirements and criteria will require CAISO and prospective EIM Entities to undertake rigorous simulations, testing, training, and other activities to identify and resolve any issues prior to the commencement of financially-binding operations. CAISO also states that it has proposed another important enhancement to the EIM, which it believes will serve to prevent many of the issues PacifiCorp encountered. According to CAISO, its proposed EIM Available Balancing Capacity market enhancement is intended to ensure that CAISO's systems can account for capacity that EIM Entities retain outside of the EIM for reliability purposes, and will reduce instances of false scarcity triggering shortage pricing.

10. CAISO contends that, even taking into account these two major improvements it has proposed to minimize the potential for unwarranted market outcomes after EIM implementation, additional protection for customers is necessary as a new EIM Entity transitions into the new market environment. According to CAISO, its proposed six-month transition period is consistent with the Commission's guidance that any new transition period CAISO proposes must be shown to be commensurate with the need to address new entrants' post-operation learning curves.¹⁹

11. CAISO explains that a six-month transition period is a reasonable duration to account for transitional issues experienced by new EIM Entities as they acclimate to the new market. CAISO asserts that data from PacifiCorp's implementation process suggests that the majority of learning curve issues can be identified and addressed within the first six months of implementation. Further, CAISO states that most of the instances during which CAISO's pricing parameters were triggered (or would have been triggered absent the waiver) happened during the first six months of implementation. However, CAISO explains that some instances of certain issues did persist past the six months, but the nature of those issues did not differ from those already experienced during the first six months. Accordingly, CAISO indicates that six months is the minimum amount of time that would be prudent for a transition period. CAISO contends that any shorter amount of time would not provide CAISO and a new EIM Entity sufficient time to identify, analyze, and address any transition issues that do arise.

¹⁸ *Id.* at 21.

¹⁹ *Id.* at 3.

12. In the event a new EIM Entity and CAISO are unable to resolve transitional issues during the first six months of operations, CAISO states that it would file a request for an extension of the transition period pricing with the Commission. CAISO has proposed revisions to section 29.27(b)(3) of its tariff to provide that CAISO will post on its website an assessment of whether an extension of the transition period is needed for a specific EIM Entity 60 days prior to the expiration of the transition period.²⁰

13. Finally, CAISO commits to continuing to prepare and file reports during the transition period similar to the monthly reports that it has filed with the Commission reporting on the types, frequency and nature of the issues experienced by PacifiCorp.²¹

III. Notice and Responsive Pleadings

14. Notice of CAISO's filing was published in the *Federal Register*, 80 Fed. Reg. 56,979 (2015), with interventions and protests due on or before September 18, 2015. Timely motions to intervene were filed by Transmission Agency of Northern California; NRG Power Marketing LLC and GenOn Energy Management, LLC; the Cities of Anaheim, Azusa, Banning, Colton, Pasadena, and Riverside, California; the Cities of Santa Clara, California and Redding, California and the M-S-R Public Power Agency; Modesto Irrigation District; Northern California Power Agency; and Alliance for Retail Energy Markets. Timely motions to intervene and comments were filed by Bonneville Power Administration (BPA); Southern California Edison Company (SoCal Edison); Puget; Pacific Gas and Electric Company (PG&E); Truckee Donner Public Utility District (Truckee Donner); PacifiCorp; and Nevada Power Company and Sierra Pacific Power Company (collectively, NV Energy). Timely motions to intervene and protests were filed by Powerex Corporation (Powerex) and Western Power Trading Forum (WPTF). CAISO filed an answer to comments and protests on October 5, 2015.

A. Comments and Protests

15. The majority of commenters support CAISO's proposed six-month transition period. SoCal Edison supports CAISO's filing for a six-month transition period, given its limited duration and scope.²² SoCal Edison states that CAISO's request is reasonable, because the EIM is a new construct, and because the next EIM Entity, NV Energy, is a new participant in CAISO's markets and retains its balancing authority function.²³

²⁰ *Id.* at 16-17.

²¹ *Id.* at 20.

²² SoCal Edison Comments at 2.

²³ *Id.* at 2.

PG&E also supports the proposal and asserts that a transition period will provide an extra layer of protection on top of the EIM readiness criteria developed through CAISO's stakeholder process.²⁴ Similarly, Truckee Donner supports CAISO's proposal for a six-month transition period as a necessary provision to protect customers from operational issues.²⁵

16. PG&E and PacifiCorp assert that CAISO's proposal is a reasonable backstop to avoid subjecting market participants to unrepresentatively high prices that are not reflective of actual physical conditions. PacifiCorp explains that as the first EIM Entity, it experienced a significant paradigm shift in its system operations and functionality, which resulted in a steep learning curve for PacifiCorp personnel. PacifiCorp contends that it is not until full financially-binding operations commence that a new EIM Entity can truly understand how operator inputs affect the market processes.²⁶ Likewise, Puget states that it supports the transitional period due to the unavoidable difficulty of implementing a new market. Puget contends that a learning curve for new EIM Entity BAAs is inevitable and does not believe that penalty prices should be applied for learning curve-related issues.²⁷ Truckee Donner argues that there may be other operational challenges beside those that the six-month transition period attempts to protect against, such as the potential for inefficient dispatch caused by NV Energy's lack of experience with the EIM. Truckee Donner requests that the Commission be prepared to swiftly act to protect customers.²⁸

17. NV Energy states that it is engaged in market simulations and non-binding parallel operations consistent with the readiness criteria vetted by stakeholders and pending before the Commission. NV Energy also states that it has incorporated lessons learned from the experiences of CAISO and PacifiCorp. However, NV Energy contends that these efforts are no substitution for experience operating in an actual production environment, especially since some issues may not be known until after the entry of an EIM Entity.²⁹ NV Energy states that challenges include the sophistication and tuning of modeling techniques to account for the larger market footprint, the maturation of each

²⁴ PG&E Comments at 3.

²⁵ Truckee Donner Comments at 1.

²⁶ PacifiCorp Comments at 4.

²⁷ Puget Comments at 4.

²⁸ Truckee Donner Comments at 3-4.

²⁹ NV Energy Comments at 7.

new market participant's operational process, and challenges dictated by seasonal operating conditions that have not yet been realized.³⁰ In light of these challenges—and in recognition that preparation is no substitute for experience—NV Energy contends that a transition period is warranted.

18. NV Energy also supports the proposed six-month period based on the additional safeguards CAISO has included in section 29.27(b)(3) of its tariff, which provides that “sixty days prior to the expiration of the transition period, CAISO will post on its website an assessment of whether an extension of the transition period is needed.” NV Energy states that this provision is critical because it provides an opportunity for the Commission to grant extension of the pricing waivers if needed to allow for the deployment of any changes to the EIM Entity's systems and processes that may be necessary.³¹ Puget also supports the ability to extend the transition period for up to an additional six months to allow a new EIM Entity to address learning curve issues occurring during financially-binding operations, in order to avoid inequitable financial impacts to the EIM Entity or its customers. Truckee Donner notes that it may be appropriate for CAISO to request waiver of the 60-day prior notice period if CAISO intends to extend the transition period so that CAISO may have an opportunity to evaluate more operational data.³²

19. PG&E, Puget, and BPA support CAISO's commitment to continue reporting on a monthly basis the frequency, magnitude, and root causes of infeasibilities in the EIM, and the use of available balancing capacity to address any such infeasibilities.³³ Puget further states that CAISO's commitment to ongoing analysis and regular reports regarding the frequency and nature of any market issues will assist in the identification and resolution of any issues. However, Puget requests that CAISO make clear the schedule and the quarterly reports it intends to provide in connection with its EIM Available Balancing Capacity proposal.³⁴

20. While BPA expresses support for the transition period, it mentions several areas of concern. First, BPA advocates for a clear statement in the CAISO tariff that contingency reserves cannot be included in the EIM Available Balancing Capacity. Second, BPA asserts that EIM Entities should not be allowed to pass through the \$1,000 penalty pricing

³⁰ *Id.* at 8.

³¹ *Id.* at 9.

³² Truckee Donner Comments at 3.

³³ PG&E Comments at 3; BPA Comments at 3.

³⁴ Puget Comments at 7.

associated with infeasibilities to transmission customers. Finally, BPA argues that the EIM Entity and CAISO need to provide a reasonable showing that the infeasibilities that give rise to the \$1,000 penalty pricing are truly anomalies benchmarked against CAISO's own system.³⁵

21. Powerex and WPTF request that the Commission reject CAISO's proposal for a six-month transition period. Powerex argues that the proposal will only temporarily mask the weaknesses of an EIM structure that gives an EIM Entity unlimited discretion over the quantity and quality of resources bid into the EIM.³⁶ In addition, Powerex contends that CAISO has refused to propose meaningful measures to avoid the infeasibilities, and that CAISO allows EIM Entities to be short on flexible capacity, leaving captive transmission customers exposed to the resulting prices.³⁷ According to Powerex, temporarily suppressing EIM prices by waiving the application of the standard pricing rules may give the appearance of a well-functioning market, but it does not address the underlying factors driving the application of penalty prices and does not represent a long-term solution to the EIM's issues. Furthermore, Powerex argues, suppressing EIM prices is likely to have the effect of reinforcing the resource sufficiency challenges that lie at the root of the problem.³⁸

22. WPTF argues that the Commission should require that new EIM Entities only commence operations after the market design has been rigorously tested. WPTF argues that "go-live" for a new EIM Entity should be predicated on measured success metrics and not simply on calendar dates.³⁹ Powerex argues that CAISO needs to establish robust readiness safeguards that reduce the likelihood of problems. Powerex contends that CAISO's readiness proposal in Docket No. ER15-861-004 requires only minimal demonstration of resource sufficiency and no assurance that the infeasibilities will not occur in BAAs of new EIM entrants.⁴⁰ Powerex argues that the extra effort and delays to the entry of new EIM Entities caused by additional simulation and testing would be

³⁵ BPA Comments at 3-4.

³⁶ Powerex Comments at 10.

³⁷ *Id.* at 10-11.

³⁸ *Id.* at 10.

³⁹ WPTF Comments at 4-5.

⁴⁰ Powerex Comments at 11.

justified, because EIM prices depend on the EIM having sufficient resources to meet the needs of customers in a full range of operational conditions.⁴¹

23. WPTF reiterates a number of the arguments it raised during the proceeding in which CAISO proposed a 12-month transition period. For instance, WPTF claims that the use of a regional forward index price is not an appropriate metric to compare to the EIM's prices to justify whether the EIM has resulted in the "right" prices.⁴² WPTF also argues that CAISO should be required to ensure a robust flexible ramping requirement is established for each EIM BAA, arguing that the apparent reduction in flexible ramping requirements has resulted in more price volatility.⁴³ WPTF also requests that the Commission require that CAISO allow participation in the EIM at EIM boundaries.⁴⁴ WPTF notes that it is inconsistent that CAISO has proposed readiness criteria that will ensure new EIM Entities are ready to begin operations in the EIM, yet also claim a need for a six-month transition to protect against unknown or unspecified problems that may arise.⁴⁵

24. As an alternative to CAISO's proposal, Powerex proposes a transition period during which each EIM Entity's ability to settle imbalance services under its OATT using EIM prices would be limited. Powerex offers that, instead, the EIM Entity would only be permitted to settle OATT Schedules 4 and 9 imbalance services at the regional pricing proxy. Powerex argues that such a solution would protect customers in a transparent way based on economically driven price signals, while new EIM Entities gain experience.⁴⁶

B. CAISO's Answer

25. With respect to Powerex's argument that CAISO should require each EIM Entity to ensure that it has sufficient resources in the EIM, CAISO asserts that there is no need for a drastic market redesign of the EIM. CAISO contends that Powerex's alternative proposals provide no basis for rejecting or modifying the transition period proposal. Specifically, CAISO asserts that Powerex fails to refute CAISO's explanation of the root

⁴¹ *Id.* at 11-12.

⁴² WPTF Comments at 4.

⁴³ *Id.* at 4.

⁴⁴ *Id.* at 5.

⁴⁵ *Id.*

⁴⁶ Powerex Comments at 14.

causes of the price excursions in the first few months of operations in the PacifiCorp BAAs. CAISO states that, contrary to Powerex's assertions, the EIM price excursions were not the result of actual capacity insufficiencies in the PacifiCorp BAAs. Because Powerex has not shown that actual scarcity triggered the price excursions, CAISO states that Powerex has failed to demonstrate a need for the "must offer" type requirements it wants CAISO to impose or a drastic redesign of the EIM.⁴⁷

26. Furthermore, CAISO claims that Powerex ignores several of CAISO's existing tests to ensure the sufficiency of available EIM resources to meet minimum requirements in a given hour and the consequences of failing to meet the requirements. For instance, CAISO asserts, each EIM Entity must have sufficient bids to meet the difference between balanced demand and the load forecast and the EIM resource plan must meet ramping requirements. CAISO also refutes Powerex's assertion that implementing the transition period could mean that EIM Entities are going live prematurely or that CAISO is masking the consequences for prices after a new EIM Entity joins. CAISO states that it has never suggested an EIM Entity should go live before it is ready to participate and contends that no EIM Entity will be allowed to participate in the EIM unless and until it has satisfied the readiness criteria.⁴⁸

27. CAISO contends that the proposed pricing mechanism will not mask pricing issues. Specifically, CAISO asserts that CAISO's Department of Market Monitoring demonstrates that the pricing mechanism that has been in effect under the existing EIM waivers has mitigated price spikes that would have occurred due to learning curve issues, and that the resulting prices closely track overall electricity prices in the West.⁴⁹ In addition, CAISO asserts that the Commission should disregard WPTF's alarmism that the integrity of CAISO's markets will be compromised. CAISO states the six-month transition period is a very limited measure applicable to a small portion of CAISO's markets.⁵⁰

⁴⁷ CAISO Answer at 6-7.

⁴⁸ *Id.* at 10.

⁴⁹ *Id.* at 11.

⁵⁰ *Id.* at 14. CAISO notes that the Commission has previously approved transition periods. *Id.* (citing *Midwest Indep. Transmission Sys. Operator, Inc.*, 139 FERC ¶ 61,056, at PP 67-81 (2012); *PJM Interconnection, L.L.C.*, 119 FERC ¶ 61,318, at PP 73-87 (2007); *Midwest Indep. Transmission Sys. Operator, Inc.*, 109 FERC ¶ 61,157, at PP 75-80 (2004)).

28. Instead, CAISO argues that the three-pronged solution is needed, which includes the proposed transition period in this proceeding, as well as the EIM Available Balancing Capacity proposal and the rigorous EIM Entity readiness criteria.⁵¹ CAISO asserts that a market redesign is not needed, given that the price excursions and infeasibilities declined significantly after six months of operations in the PacifiCorp BAAs, and the early price excursions experienced were due to learning curve issues that led to artificial scarcity in the market runs. If CAISO determines that a market design issue needs to be addressed, it states that it will take the necessary steps to address that issue rather than requesting an extension of the transition period pricing.⁵²

29. CAISO argues that WPTF's request to change the flexible ramping requirements for each EIM Entity is beyond the scope of this proceeding, but states that it has determined that additional specificity may be needed in its proposed tariff provisions pertaining to the circumstances under which the Flexible Ramping Constraint relaxation parameter may be set at a value between \$0 and \$0.01 during the transition period. CAISO clarifies that, under the proposal, the Flexible Ramping Constraint relaxation parameter will be set between \$0 and \$0.01 only when the transmission constraint set forth in tariff section 27.4.3.2 or the power balance constraint set forth in the second sentence of tariff section 27.4.3.4 is relaxed, as is the case under the currently applicable waiver of tariff section 27.10.⁵³ If the Commission finds that the tariff should include this tariff clarification, CAISO proposes to make this clarification to the tariff on compliance.

30. In response to Puget, CAISO clarifies the features of the monthly transition period reports CAISO has committed to filing in this proceeding and the quarterly market reports CAISO has committed to file in the EIM Available Balancing Capacity proceeding. CAISO states that it will provide information in the monthly transition period reports similar to that contained in the reports filed in Docket No. ER15-402-000, to include, among other things, information such as the frequency and magnitude of all power balance constraint and transmission constraint infeasibilities and measures taken by CAISO and the EIM Entity to resolve any identified issues.⁵⁴ In the separate pending EIM Available Balancing Capacity proceeding, CAISO commits to providing quarterly reports containing information such as the price at which the market cleared with the EIM

⁵¹ *Id.* at 2-3.

⁵² *Id.* at 11.

⁵³ *Id.* at 14-15 (citing *Cal. Indep. Sys. Operator Corp.*, 152 FERC ¶ 61,127, at PP 16-19 (2015)).

⁵⁴ *Id.* at 15-16.

Available Balancing Capacity and the amount of megawatts of EIM Available Balancing Capacity used to clear the market for each EIM Entity. CAISO asserts that there may be some overlap between the two reports, but that the purposes of the two reports are different.⁵⁵

31. In response to BPA's assertion that new EIM Entities should be required to meet certain metrics before they move from the transition period pricing to full implementation of the normal EIM pricing parameters, CAISO states that the Commission should not direct CAISO to establish such metrics. CAISO claims that the transition period filing is not intended to address readiness issues, which will be addressed prior to an EIM Entity's participation in the EIM through the readiness criteria. CAISO believes that six months is a sufficient amount of time to work through any issues that arise following the EIM Entity's entry into the EIM, but that it would request an extension of transition period pricing from the Commission if necessary. CAISO contends that, without knowing the specific learning curve issues that may arise for each individual EIM Entity, it is difficult for CAISO to envision what metrics it could adopt to allow it to assess whether the transition period pricing should be discontinued for an EIM Entity.⁵⁶

32. While it is not specifically an issue in the transition period proceeding, CAISO agrees to provide clarification to BPA that capacity designated as contingency reserves (i.e., spinning and non-spinning reserves) will not be considered EIM Available Balancing Capacity. CAISO further states that it will provide this clarification in the proceeding in which the Commission is considering the EIM Available Balancing Capacity proposal.⁵⁷

IV. Discussion

A. Procedural Matters

33. 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.

34. 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

⁵⁵ *Id.* at 16-17.

⁵⁶ *Id.* at 18.

⁵⁷ *Id.* at 19-20.

decisional authority. We will accept the answer submitted by CAISO because it has provided information that assisted us in our decision-making process.

B. Commission Determination

35. In the March 16 Order, the Commission recognized that even with rigorous testing and a parallel operations period, it may not be possible to identify all operational issues prior to the commencement of operations.⁵⁸ The Commission also provided that, in the event CAISO made a subsequent transition period proposal for EIM Entities, the proposal must be “commensurate with the need to address a new entrant’s post-operation ‘learning curve.’”⁵⁹ We find that the proposal to include a six-month transition period for new EIM Entities is consistent with this guidance, and therefore accept it subject to condition, effective November 1, 2015, as discussed below.

36. As different EIM Entities transition into the EIM, different integration challenges may arise because of the unique operational and system characteristics of distinct BAAs. For instance, the resource mix and seasonal differences of BAAs could contribute to disparate transitional integration challenges requiring adjustments tailored to suit the needs of each BAA.⁶⁰ Thus, even if robust readiness measures, market simulation, and a thorough parallel testing period are in place, it may not be possible for an EIM Entity to predict all of the adjustments it may need to make to balance its load and resources and manage its contingency reserves prior to operating its system pursuant to CAISO’s dispatches. While the Commission has accepted transition periods reasonably calibrated to the challenges posed by a new market, we encourage parties to avoid over-reliance on such periods and to address integration issues via market-based solutions and readiness requirements to the greatest extent feasible. We thus find that a six-month transition mechanism, while not ideal, is nevertheless a reasonable mechanism to help address challenges associated with integrating a new EIM Entity that could not have been anticipated or prevented prior to the new EIM Entity’s participation into financially-binding EIM operations.

37. Moreover, based on the record, we find that six months is a reasonable amount of time to provide CAISO and new EIM Entities with the opportunity to analyze transitional

⁵⁸ March 16 Order, 150 FERC ¶ 61,191 at P 35.

⁵⁹ *Id.*

⁶⁰ For example, different BAAs participating in the EIM may have system peaks at different times of the year that affect the regional dispatch of necessary resources, penetration levels of differing variable resources requiring unique balancing area requirements, and the necessity for reliable operation for these differing balancing areas.

issues and make all necessary adjustments and refinements. Deferring for six months the application of the pricing parameters that normally apply when CAISO's market software relaxes a power balance or transmission constraint, set forth in tariff sections 27.4.3.2 and 27.4.3.4, is a reasonable accommodation, particularly given the novel features of and approach to the EIM.

38. We also accept, subject to condition, CAISO's proposed provisions allowing it to set the Flexible Ramping Constraint relaxation parameter at an amount between \$0 and \$0.01 for the new EIM Entity's BAA, as this is necessary for CAISO's market software to determine the marginal energy bid price. Specifically, in order to establish pricing based on the last economic bid when constraints are relaxed in the scheduling run, CAISO must set the Flexible Ramping Constraint relaxation parameter to \$0, or a value close to zero, for the new EIM Entity BAA in the pricing run. Otherwise, the pricing run will establish prices based on the value of the Flexible Ramping Constraint relaxation parameter. Therefore, we find that this aspect of CAISO's proposal is necessary to effectuate the pricing mechanism proposed during the six-month period. However, as CAISO acknowledges in its answer, proposed tariff section 29.7(b)(2) does not specify that the Flexible Ramping Constraint relaxation parameter will be set between \$0 and \$0.01 only when the transmission constraint set forth in tariff section 27.4.3.2 or the power balance constraint set forth in the second sentence of tariff section 27.4.3.4 is relaxed.⁶¹ Based on the provisions that CAISO has proposed, transmission constraints and/or power balance constraints will still bind as system conditions warrant. However, during the proposed transition period, when those constraints bind, CAISO will not utilize the parameter pricing set out in its tariff, but rather utilize the last marginal bid to clear the market. To that end, the only intervals when the Flexible Ramping Constraint relaxation parameter would be set between \$0 and \$0.01 are those in which a transmission constraint and/or power balance constraint must be relaxed. Therefore, we accept CAISO's proposed tariff provision, subject to a further compliance filing within 30 days of the date of this order specifying in proposed tariff section 29.7(b)(2) that the Flexible Ramping Constraint relaxation parameter will be set between \$0 and \$0.01 only when the transmission and/or power balance constraints are relaxed during the transition period.

39. In addition, we find that CAISO's proposed tariff revisions appropriately reflect that CAISO would be required to demonstrate to the Commission, and timely communicate to stakeholders, a need for an extension of the transition period if integration challenges remained unresolved at the end of the six-month period. We find that this provision will ensure that market participants are informed in advance of CAISO's plan to request an extension of the transition period pricing and have an

⁶¹ CAISO Answer at 14-15.

opportunity to comment on the proposed extension. This should also facilitate the timely filing of CAISO's requests to extend the transition period pricing for a new EIM Entity if necessary.

40. Powerex characterizes the proposed transition period as an attempt to mask the underlying problems that contributed to the price spikes in PacifiCorp's BAAs and states that CAISO has proposed no meaningful solutions to avoid infeasibilities. We understand that in the months following the March 16 Order, CAISO undertook efforts to find solutions that address the root causes of the price spikes, worked with stakeholders to develop proposals to mitigate learning curve issues for future EIM Entities, and addressed the structural market issue that limited CAISO's visibility into the capacity available to an EIM Entity to meet load in its BAA. The result of these efforts is reflected in CAISO's proposals pending before the Commission regarding readiness and EIM Available Balancing Capacity. As such, it appears that CAISO has taken tangible steps to resolve the underlying problems that contributed to the price spikes in PacifiCorp's BAAs. Consequently, while the six-month transition proposal is not ideal, we do not view it as an attempt to mask the problems that contributed to the price spikes. Rather, we find that the proposed transition period is an additional safeguard as new EIM Entities transition into the EIM. The pending readiness measures and pending EIM Available Balancing Capacity proposal are intended to resolve the underlying issues that contributed to the price spikes.

41. With respect to Powerex's suggestion that the EIM Entity only be permitted to settle OATT Schedules 4 and 9 imbalance services at the regional proxy price during the six-month transition, we find that CAISO has supported its proposal as just and reasonable and that the Commission need not proceed to evaluate alternative proposals.⁶² CAISO's proposed pricing mechanism, which will establish the market-clearing price based on the last marginal bid, reflects the available economic price signals and avoids administratively set prices, which, as discussed above, may not be reflective of actual system conditions. Furthermore, as discussed above, CAISO's proposed six-month transition period will apply the same treatment to new EIM Entities that the Commission has previously accepted through several waiver requests, and that has successfully prevented anomalous price spikes in PacifiCorp's BAAs. Accordingly, we find CAISO's proposed transitional pricing mechanism an appropriate means of ensuring just and reasonable rates for customers while new EIM Entities gain experience operating in the EIM.

42. Commenters raised several issues that fall beyond the scope of this proceeding and are more appropriately addressed in the pending proceedings on CAISO's proposed

⁶² See, e.g., *City of Bethany v. FERC*, 727 F.2d 1131, 1136 (D.C. Cir. 1984); *Cal. Indep. Sys. Operator Corp.*, 128 FERC ¶ 61,265, at P 21 (2009).

readiness criteria and Available Balancing Capacity proposal. This proceeding is limited to CAISO's proposed six-month transition period. Regarding WPTF's argument that CAISO must be required to ensure a robust flexible ramping requirement for each BAA, we find that this issue is not before the Commission in this proceeding. Similarly, Powerex's contention that CAISO's readiness proposal in Docket No. ER15-861-004 requires minimal demonstration of resource sufficiency and assurance that infeasibilities will not occur in new EIM Entity BAAs is outside the scope of this proceeding. Likewise, WPTF's assertion that "go-live" should be predicated on success metrics rather than an artificial calendar date is not before the Commission here. These issues are appropriately addressed in the proceeding on CAISO's proposed readiness measures in Docket No. ER15-861-004. For the avoidance of doubt, we note that NV Energy cannot commence full commercial operations in the EIM until the Commission has acted on the proposed readiness criteria in that proceeding.⁶³

43. Additionally, we find that Powerex and WPTF's comments regarding the sufficiency of resources bid into the EIM, including WPTF's request that the Commission require that CAISO allow participation in the EIM at EIM boundaries, are beyond the scope of this proceeding. Issues related to the sufficiency of capacity available to the EIM as it relates to the occurrence of infeasibilities are more appropriately addressed in the section 206 proceeding instituted in the March 16 Order.

44. As for WPTF's comment that the use of a regional forward index price is not an appropriate metric to compare to the EIM's prices in order to justify whether the EIM has resulted in the "right prices," we find that WPTF has not adequately explained its concern as it relates to CAISO's proposed tariff amendments. We note that the part of CAISO's transmittal letter to which WPTF appears to object merely states that with the waiver of penalty parameters, EIM prices have been "closely aligned with the average prices for the bilateral market in the West for most of the period."⁶⁴ While WPTF may believe that the average price of bilateral markets in the West is not the right benchmark price for EIM, that question is not before us and we are not making any determinations on that basis. Therefore, WPTF's concern is irrelevant to our decision regarding the proposed six-month transition period.

45. We also accept CAISO's commitment to continue reporting to the Commission on a monthly basis during a new EIM Entity's transition period.⁶⁵ However, to ensure that

⁶³ As meeting the readiness requirements is a prerequisite to joining the EIM, NV Energy cannot have met this condition until the requirements have been accepted by the Commission and put into place.

⁶⁴ CAISO August 28 Filing at 18.

⁶⁵ These reports will not be noticed for comment or require Commission action.

the Commission and stakeholders are fully apprised of the issues prompting CAISO's proposal of this tariff amendment, we find that additional information is necessary beyond what CAISO has proposed to include. Specifically, since the tariff provisions providing the six-month transition period we are accepting here are similar to the waiver of the pricing parameters we accepted with regard to the PacifiCorp BAAs,⁶⁶ we will continue to apply the same reporting requirement for CAISO and the CAISO Department of Market Monitoring as we required in those proceedings.⁶⁷ We find that these reports will provide transparency to market participants and the Commission regarding any implementation challenges a new EIM Entity is experiencing and the progress of CAISO and the EIM Entity in resolving such challenges. Accordingly, we direct CAISO to file informational reports, consistent with its previous reporting requirements associated with the waiver of the pricing parameters, at 30 day intervals during the six-month transition period for any new EIM Entity. The first report should be filed 30 days from the commencement of financially binding operations for any new EIM Entity.

46. With respect to Puget's comment seeking clarification of the scope and content of CAISO's potential reporting requirements in the pending EIM Available Balancing Capacity proposal, the Commission will address and distinguish any reporting requirements associated with that proposal in the EIM Available Balancing Capacity proceeding in Docket No. ER15-861-003.

47. Finally, with regard to BPA's request that CAISO revise its tariff to state that contingency reserves cannot be included in the EIM Available Balancing Capacity, we note that the proper proceeding in which to raise this issue is Docket No. ER15-861-003 where the Commission is considering CAISO's EIM Available Balancing Capacity proposal. With regard to BPA's assertion that EIM Entities should not be allowed to pass through the \$1,000 penalty pricing associated with infeasibilities to transmission customers and that the EIM Entity and CAISO need to provide a reasonable showing that the infeasibilities that give rise to the \$1,000 penalty pricing are true anomalies, we note that here we are accepting CAISO's proposal to waive the applicability of the penalty parameters for a six-month transition period. Therefore, as relevant to this proceeding, \$1,000 prices that may result from application of the penalty parameters will not apply during the transition period. To the extent that BPA has broader concerns about the application of penalty parameters, its concerns are outside the scope of this proceeding.

⁶⁶ See *supra* P 3, (citing *Cal. Indep. Sys. Operator Corp.*, 149 FERC ¶ 61,194; *Cal. Indep. Sys. Operator Corp.*, 150 FERC ¶ 61,086).

⁶⁷ See *Cal. Indep. Sys. Operator Corp.*, 149 FERC ¶ 61,194 at PP 25-26.

The Commission orders:

(A) CAISO's proposed tariff revisions are hereby accepted for filing, subject to condition, effective November 1, 2015, as discussed in the body of this order.

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

(C) 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.