UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

California Independent System Operator Corporation	))	**Docket No. ER15-861-000**

ANSWER OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION TO COMMENTS AND PROTESTS

The California Independent System Operator Corporation ("CAISO")[1] files this answer to the comments and protests submitted[2] in response to the CAISO's January 15, 2015, tariff amendment to implement transition period pricing for 12 months for each new Energy Imbalance Market ("EIM") entity taking part in the Energy Imbalance Market ("January 15 Tariff Filing").[3] The protests and

[1] Capitalized terms not otherwise defined herein have the meanings set forth in appendix A to the CAISO tariff.

[2] The following entities filed motions to intervene in the proceeding: the Alliance for Retail Energy Markets; California Municipal Utilities Association; Cities of Anaheim, Azusa, Banning, Colton, Pasadena, and Riverside, California; Cities of Santa Clara and Redding, California, and the M-S-R Public Power Agency; Exelon Corporation; Modesto Irrigation District; NV Energy, Inc. ("NV Energy"); Pacific Gas and Electric Company; PacifiCorp; Powerex Corp. ("Powerex"); Puget Sound Energy, Inc. ("Puget"); Sacramento Municipal Utility District; Truckee Donner Public Utility District; and Western Power Trading Forum ("WPTF"). In addition, the Public Utilities Commission of Nevada filed a notice of intervention, NV Energy and PacifiCorp filed comments in support, Puget filed comments, and Powerex and WPTF filed protests. Although the Notice of Filing for the January 15 Tariff Filing specified that motions to intervene and comments were due by January 26, 2015, Powerex and WPTF also submitted filings styled as supplemental protests on February 4 and 5, 2015, respectively.

[3] The CAISO files this answer pursuant to Rules 212 and 213 of the Commission's Rules of Practice and Procedure, 18 C.F.R. §§ 385.212, 385.213. The CAISO requests waiver of Rule 213(a)(2), 18 C.F.R. § 385.213(a)(2), to permit it to make an answer to Powerex's and WPTF's protests. Good cause for this waiver exists here because the answer will aid the Commission in understanding the issues in the proceeding, provide additional information to assist the Commission in the decision-making process, and help to ensure a complete and accurate record in the case. *See, e.g.*, *Equitrans, L.P.*, 134 FERC ¶ 61,250, at P 6 (2011); *Cal. Indep. Sys. Operator Corp.*, 132 FERC ¶ 61,023, at P 16 (2010); *Xcel Energy Services, Inc.*, 124 FERC ¶ 61,011, at P 20 (2008).

comments provide no valid reason why the Commission should not accept the tariff revisions as filed in the January 15 Tariff Filing.

Powerex and WPTF argue that the CAISO's proposal disguises fundamental flaws with the Energy Imbalance Market design and flexibility deficiencies in the EIM areas. These claims are unsupported. Contrary to their claims, the CAISO simply proposes to provide a 12-month term during which an EIM entity can integrate into a new market environment without erroneously triggering scarcity pricing through mistakes in processing and managing information in the new market environment, when in reality no true scarcity exists. The CAISO has demonstrated in two informational reports filed with the Commission that when a new entity takes part in the Energy Imbalance Market, it will face a steep learning curve as it transitions and responds to the demands of operating in the context of that centralized market. The CAISO operates all of its markets, including the Energy Imbalance Market, using a range of sophisticated systems that respond accurately to the information submitted to them. But if the market systems are misinformed due to operator errors, the market systems will dispatch and price resources as if scarcity exists when in actuality it does not. It is just and reasonable to put measures in place for a 12-month period in order to avoid mistakenly triggering scarcity pricing when the scarcity does not truly exist due to these transitional issues.

Powerex's suggestion that the CAISO suspend the Energy Imbalance Market would be an extreme and unwarranted step. There is no reason to halt the Energy Imbalance Market. In fact, the CAISO and its Department of Market

Monitoring have demonstrated that the Energy Imbalance Market is functioning competitively and efficiently, absent the learning curve issues it has experienced, as reported in their December 2014 and January 2015 reports filed in Docket No. ER15-402. Powerex is also incorrect in arguing that the conditions the Energy Imbalance Market has experienced indicate extensive problems due to resource insufficiency. All the evidence, including but not limited to the independent assessment of the Department of Market Monitoring, indicates that the Energy Imbalance Market has been robust. Powerex's suggestion that the CAISO use only the existing price correction provisions in its tariff does not sufficiently address the transitional issues the CAISO seeks to address with this amendment and subjects the market to greater pricing uncertainty.

Powerex's and WPTF's February 4 and 5 filings, which are styled as supplemental protests, in fact have nothing to do with whether the tariff revisions in this proceeding proposing a transition period for all new EIM entities are just and reasonable. Those late filings are therefore beyond the scope of this proceeding and should be rejected. Moreover, because the filings have no bearing on the tariff revisions, they should not delay the Commission's issuance of an order by February 12, 2015, that accepts the tariff revisions effective February 13, 2015, as requested in the January 15 Tariff Filing.

Puget contends that the Commission should approve a transition period based on performance benchmarks rather than the 12-month transition period, and WPTF requests that the changes not apply to all future new EIM entities. The CAISO disagrees. First, the Commission should reject proposals for alternatives to the tariff revisions proposed by the CAISO in this proceeding because the CAISO has shown that the revisions are just and reasonable, and it is not required to demonstrate that its proposal is superior to alternative proposals. Second, a 12-month transition period for all new EIM entities is appropriate to address informational and operational challenges that may arise over different seasons under different conditions. Puget's alternative proposal, in contrast, could subject the market to unnecessarily extreme prices if the performance benchmarks are incorrect.

Lastly, there is no merit to Puget's concerns regarding the revision of the flexible ramping constraint relaxation parameter. The parameter setting as proposed in the January 15 Tariff Filing does not limit the amount of flexibility procured but only ensures that the parameter does not serve as a floor for the energy price.

I. Background

In the January 15 Tariff Filing, the CAISO proposed to revise section 29.27 of the CAISO tariff to provide a 12-month transition period during which the pricing of energy in the balancing authority area of a new EIM entity is not subject to the pricing parameters, currently pegged to the $1,000 per megawatt-hour (MWh) price cap, that normally applies under the CAISO tariff when the market optimization relaxes a transmission constraint or the power balance constraint in clearing the real-time market. The CAISO also proposed to revise tariff section 29.27 to state that during the 12-month transition period the flexible ramping constraint relaxation parameter specified in tariff section 27.10 will be set in a range between $0 and $0.01 for each new EIM entity's balancing authority area.

The proposed tariff revisions will authorize the CAISO to employ the same transitional protection provided by the limited tariff waiver the Commission granted on December 1, 2014, effective from November 14, 2014, through February 12, 2015.[4] The CAISO requested that the Commission issue an order by February 12, 2015, that accepts the tariff revisions effective February 13, 2015. This will enable the CAISO to provide the same 12-month transitional period to the existing EIM entity that it would provide to all new EIM entities for the first twelve months of their participation in the Energy Imbalance Market.

II. Answer

A. The Tariff Revisions Are Necessary to Provide Just and Reasonable Prices for Customers Due to Transitional Issues with the Energy Imbalance Market.

The January 15 Tariff Filing demonstrates that transitional issues with the Energy Imbalance Market are misinforming the CAISO's market systems regarding the actual extent of constraints in the relevant areas. This results in parameter-based prices required by the current tariff that deviate significantly from the West-wide average hub prices.[5] These inappropriately high prices do not reflect actual scarcity of energy but instead reflect artificial scarcity.[6] The purpose of the tariff revisions is to price energy based on the last economic

4 *Cal. Indep. Sys. Operator Corp.*, 149 FERC ¶ 61,194 (2014) ("December 1 Order").

5 Transmittal letter for January 15 Tariff Filing at 9-15.

6 *Id.* at 1-2, 15-16.

signal in such situations. Thus, the tariff revisions compensate for transitional issues that are masking the true market conditions and Energy Imbalance Market prices.

Powerex and WPTF oppose Commission acceptance of the January 15 Tariff Filing to address the inappropriately high prices. They assert instead that the proposed tariff revisions will artificially suppress Energy Imbalance Market prices, which will not reflect market conditions.[7] Powerex and WPTF are incorrect. It is the anomalous prices that do not reflect market conditions in most circumstances. In the December 15, 2014, and January 15, 2015, informational reports filed with the Commission and attached to the January 15 Tariff Filing, the CAISO demonstrated that the EIM entity has experienced transitional issues that have caused the market software to receive incorrect information and thus mistakenly to price energy based on artificial scarcity. The reports demonstrate that the EIM entity's performance is improving but also that over time, as the EIM entity transitions to different seasons and changed conditions, it is susceptible to new process errors that again cause the market systems to be misinformed as to actual system and market conditions.[8] The tariff revisions will ensure just and reasonable prices for customers who would otherwise have to pay inappropriately high prices due to artificial scarcity created by these transitional issues.

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[7] Powerex at 16-21; WPTF at 5-7.

[8] *See, e.g.*, December 15 Report at 6-26; January 15 Report at 6-35.

Claims that the CAISO is suppressing prices through the proposed transitional measures are unfounded. First, it is important to note that in the absence of the mistakes and errors in informing the market, prices in the CAISO system would be based on the last economic bid price. The transitional measures ensure that the mistakes and errors do not set prices erroneously based on the scarcity pricing mechanism. Instead, the transitional measures protect ratepayers from the "learning curve" types of errors and allow the CAISO to establish prices based on the last economic bid, which is where the prices would be absent such errors. Second, even under the transitional pricing mechanism, if a market participant submits a bid as high as $1,000/MWh, if that bid is marginal, the bid will set prices in the Energy Imbalance Market areas. Therefore, the transitional pricing mechanism does not discourage parties from submitting their economic bids as high as $1,000/MWh, and if their bids are selected as economic because system and market conditions warrant their selection, prices will rise as high as $1,000/MWh. Moreover, the market will remain protected from the exercise or market power in such conditions because if that bid is mitigated, the bid as mitigated will set the price under the existing tariff-based rules.

Contrary to Powerex's argument that the tariff revisions will send inappropriate price signals,[9] the tariff revisions will allow the CAISO to establish prices that send accurate price signals. Without the tariff revisions in place, the price signals are likely to reflect artificial scarcity caused by the transitional issues

[9] Powerex at 16-17.

and not true market conditions during the 12-month transition period. As each new EIM entity gains experience and proficiency with the Energy Imbalance Market, the transitional issues will dissipate and cease to create artificial scarcity that undermines the market results.

WPTF challenges the CAISO's use of the index of Western bilateral index prices prepared by the Department of Market Monitoring ("DMM").[10] In addition to arguing that the CAISO did not provide sufficient information regarding the index, WPTF argues that the use of the index to evaluate pricing under the waiver mechanism is not appropriate because: (1) the sales into the CAISO have accompanying risks and potential charges result in CAISO prices clearing at a premium over InterContinental Exchange ("ICE") prices; (2) western hub prices do not reflect the tighter PacifiCorp East or PacifiCorp West geographic areas; and (3) ICE prices are based on day-ahead block sales, whereas the Energy Imbalance Market clears prices every five minutes, which WPTF asserts are more volatile prices.

The CAISO confirms that it used the information regarding the bilateral price index contained in the most recent informational report filed by the Department of Market Monitoring to provide the index information reflected in the January 15 Tariff Filing.[11] WPTF mischaracterizes the CAISO's use of that index. The CAISO used that index to show that the prices under the transitional

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[10] WPTF at 6-7.

[11] *Compare* Department of Market Monitoring, Report on Energy Imbalance Market Issues and Performance, Docket No. ER15-402-000, at 7-8 (Figures 2.2 and 2.4) (version with minor corrections filed Jan. 27, 2015) ("January 27 DMM Report"), *with* transmittal letter for January 15 Tariff Filing at 13 (Figures 3 and 4).

pricing mechanism do not produce extreme and unreasonable prices. In its assertions, WPTF does not provide any facts or evidence to show that PacifiCorp East or PacifiCorp West is much more constrained geographic areas than others in the West. The CAISO understands that locational marginal pricing provides a far better indicator of the actual price of energy at a given geographic location, but there are no existing indices to reflect such prices other than the CAISO's own prices. WPTF fails to acknowledge that the CAISO has been pricing energy based on locational marginal prices under the 90-day waiver period pricing and is reflecting local conditions present in the real-time. The CAISO is not setting the prices at the index – it is letting bids in the Energy Imbalance Market set the prices. WPTF's concerns would be valid if the CAISO were suggesting the use of the index prices to settle energy. But the CAISO is not doing so.

The Commission should reject Powerex's argument that the CAISO is proposing to deviate from its filed rate. The Commission has explained that "the courts and this Commission have recognized that there is not a single just and reasonable rate. Instead, we evaluate [proposals submitted under section 205 of the Federal Power Act] to determine whether they fall into a zone of reasonableness. So long as the end result is just and reasonable, the [proposal] will satisfy the statutory standard."[12] There is no merit to Powerex's argument that it would be inconsistent with Commission precedent to apply the proposed

[12] *Calpine Corp. v. Cal. Indep. Sys. Operator Corp.*, 128 FERC ¶ 61,271, at P 41 (2009) (citations omitted). *See also New England Power Co.*, 52 FERC ¶ 61,090, at 61,336 (1990), *aff'd sub nom. Town of Norwood v. FERC*, 962 F.2d 20 (D.C. Cir. 1992), citing *City of Bethany v. FERC*, 727 F.2d 1131, 1136 (D.C. Cir. 1984) (rate design proposed need not be perfect, it merely needs to be just and reasonable).

tariff revisions rather than the existing tariff in the transitional circumstances.[13] The CAISO proposing to amend its tariff and has demonstrated that its proposal is just and reasonable. Powerex erroneously asserts that application of the tariff revisions would be a departure from the filed rate, by which Powerex means just the existing tariff. In fact, however, the filed rate consists of whichever tariff provisions the Commission accepts. Therefore, Commission acceptance of the tariff revisions contained in the January 15 Tariff Filing will make those revisions the filed rate. By Powerex's standard, the CAISO would never be permitted to amend its tariff.

B. The Energy Imbalance Market Is Experiencing Transitional Challenges, Not More Extensive Problems.

Powerex argues that the conditions the Energy Imbalance Market is experiencing are not transitional challenges but rather more far-reaching problems attributable to persistent resource insufficiency in the PacifiCorp balancing authority areas.[14] Powerex is again incorrect. Based on operational data there is evidence that the vast majority of MW infeasibilities are the direct result of the market not being accurately and timely informed about system conditions outside of the market and within the EIM entity balancing authority area. These are only occasional transitional issues that PacifiCorp and the CAISO are addressing.

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13 Powerex at 12-13.

14 *Id.* at 13-16.

Aside from the occasional transitional issues that prompted the January 15 Tariff Filing, given its few months of operations the Energy Imbalance Market is performing well and generating significant mutual benefits for both CAISO and PacifiCorp. In the independent assessments that the December 1 Order directed the CAISO to file,[15] the Department of Market Monitoring has provided substantial data showing the overall robust performance of the Energy Imbalance Market. For example, the most recent DMM informational report includes the following findings:

- "During most intervals, prices in the EIM have been highly competitive and have been set by bids closely reflective of the marginal operating cost of the highest cost resource dispatched to balance loads and generation. However, *during a relatively small portion of intervals*, energy or flexible ramping constraints have had to be relaxed for the market software to balance modeled supply and demand."[16]

- "Bidding in the EIM has been highly competitive, with bids for most capacity slightly below or above default energy bids (DEBs) used in market power mitigation. Thus, when relatively high EIM prices have occurred, these prices reflect penalty prices for software constraints rather than bid prices. In addition, when bids are mitigated due to market power mitigation provisions, these procedures generally result in modest reductions in bid prices."[17]

- "Prices in the 5-minute market since the price discovery mechanism has been in effect have been lower than these bilateral market price indices by about 17 percent in PacifiCorp East and about 12 percent in PacifiCorp West. Without price discovery, prices in PacifiCorp East would be about 80 percent higher than bilateral market price indices in the 15-minute and about 70 percent higher in the 5-minute market. In PacifiCorp West,

[15] December 1 Order at P 25.

[16] January 27 DMM Report at 5 (emphasis added). These Department of Market Monitoring findings accord with the January 15 Tariff Filing, in which the CAISO showed that the transitional issues experienced by PacifiCorp since the start of the Energy Imbalance Market have become less frequent over time. Transmittal letter for January 15 Tariff Filing at 9-12.

[17] January 27 DMM Report at 31.

prices without price discovery would be about 15 percent higher than bilateral market prices in the 15-minute market and more than twice as high in the 5-minute market."[18]

- "The amount of capacity participating in the EIM increased significantly over the second half of November, and most available capacity from EIM participating resources is being offered into the market. On average, over 85 percent of the nameplate capacity registered to participate in EIM has been bid into the market during peak hours. Almost all capacity that is not bid into the market appears to be unavailable due to outages and other unit limitations."[19]

- "The total capacity offered into the EIM appears to be more than sufficient to meet demand during most hours. Overall, about 45 percent of all bids submitted in the EIM have been dispatched to meet demand. However, the portion of this supply available for dispatch on a 15-minute and 5-minute basis is still sometimes insufficient to meet the demand for imbalance energy as projected by the market software. In many cases, these insufficiencies appear to be largely attributable to the various factors cited in the ISO's December 15 and January 15 reports rather than more fundamental market or system conditions."[20]

The information provided by the Department of Market Monitoring independently supports the conclusion that the Energy Imbalance Market is functioning reasonably well even in its first few months of operation.

The CAISO also has reported significant transfers occurring between the EIM areas and the CAISO.[21] Further, the CAISO will soon release its first report on the benefits of Energy Imbalance Market, which will demonstrate its benefits for ratepayers even in these early days of the market.

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18 *Id.* at 9.

19 *Id.* at 1.

20 *Id.*

21 The CAISO has reported the volume of daily energy transfer from the fifteen minute market in its market performance forum meetings; a daily average of 2,700 MWh and 3,220 MWh of transfers occurred during November and December, respectively, between the PacifiCorp and CAISO balancing authority areas.

Powerex argues that the tariff revisions will eliminate the incentive for a new EIM entity to ensure that it has sufficient EIM participating resources available to meet system needs.[22] The facts are to the contrary. Even with the 90-day tariff waiver (which includes the same measures as the tariff revisions) in place, PacifiCorp has increased its participation in the Energy Imbalance Market in just the three months since that market began, a period that has also for the most part coincided with the effectiveness of the 90-day waiver. Powerex provides no evidence that PacifiCorp has failed to procure sufficient capacity and reserves.

Powerex also argues that the reliability implications of persistent resource insufficiency are apparent from a dramatic increase in the number of hours with emergency e-tags since the Energy Imbalance Market commenced full operation.[23] PacifiCorp's emergency tag changes are completely unrelated to the issue before the Commission in this proceeding, namely, whether or not the CAISO should adopt the proposed 12-month transitional pricing mechanism for all new EIM entities. In any case, Powerex erroneously attempts to use this information to cast judgment on the performance of the Energy Imbalance Market in its continued efforts convince the Commission to halt the Energy Imbalance Market. PacifiCorp's emergency tag changes also demonstrated an increased ability for the EIM entity to respond quickly to market conditions and make use of internal and external resources to balance its system optimally. The increase in

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[22] Powerex at 19-20.

[23] *Id.* at 20.

frequency may be due to the EIM entity's ability to now see and address real-time issues more efficiently in light of the substantial technology enhancements the EIM entity adopted with its participation in the Energy Imbalance Market. While the EIM entity has experienced learning curve issues with the new tools available to it, the EIM entity now has substantially enhanced systems that allow it to view, anticipate, and react to system conditions more effectively.

Further, in order to provide additional transparency to market participants, the CAISO has made a commitment to voluntarily continue the reporting requirements, as ordered by the Commission in the December 1 Order for the 90-day waiver period, through the entire 12-month transition period on a quarterly basis.[24] The reports will show the performance of the new Energy Imbalance Market under the transitional pricing measures. The CAISO also provides the public with regular reports on all of its markets, as does the Department of Market Monitoring. The performance and validity of the markets should be evaluated based on the metrics and data provided therein.

C. The Commission Should Accept the January 15 Tariff Filing Rather than Require any Suggested Alternative Approach.

Powerex suggests alternatives to the tariff revisions. As discussed above, because the tariff revisions are just and reasonable, the Commission should not entertain its alternative suggestions.[25] Moreover, the alternative suggestions are problematic in a number of respects.

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24 Transmittal letter for January 15 Tariff Filing at 12, 17.

25 *See Cal. Indep. Sys. Operator Corp.*, 141 FERC ¶ 61,135, at P 44 (2012) ("Upon finding that CAISO's Proposal is just and reasonable, we need not consider the merits of alternative proposals.").

Powerex argues that if the CAISO and PacifiCorp believe the issues the Energy Imbalance Market has experienced are severe, they should take steps to suspend operation of the Energy Imbalance Market until those issues are addressed.[26] As discussed above, there is no evidence of extensive flaws with implementation of the Energy Imbalance Market, but only transitional issues that will diminish over time as new EIM entities gain experience with the implementation. Therefore, it would be inappropriate to take the extreme step of suspending the Energy Imbalance Market. If the Commission were to require suspension of an energy market rather than allow it to work through limited transition issues, development of the energy markets in the United States would be greatly slowed or would come to a standstill.

Powerex argues that the tariff already authorizes the CAISO to correct prices to the extent an error prevented its software from reflecting system conditions.[27] However, price correction is not a sufficient mechanism to address transitional issues that a new EIM entity may experience. As the CAISO has explained, the three primary types of transitional issues that the CAISO and PacifiCorp identified after implementation of the Energy Imbalance Market are less likely to be subject to the CAISO's normal price correction procedures than some of the data or software concerns identified in other instances.[28] The CAISO has no way of validating that the input error was legitimately an error and

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[26] Powerex at 12.

[27] *Id.* at 18.

[28] Transmittal letter for January 15 Tariff Filing at 5-6.

not an attempt to influence the market in an otherwise impermissible way and avoid certain market requirements. For this reason, the current tariff does not authorize the CAISO to correct prices when the EIM entity makes an error in the data it submits to the market systems.[29]

Even if the CAISO could use price correction to address transitional issues, it would not be preferable to applying the tariff revisions contained in the January 15 Tariff Filing. Having to rely on price corrections would create a degree of uncertainty for market participants not present with the tariff revisions, because the tariff revisions will better enable market participants to rely on posted prices.

D. Powerex's and WPTF's Supplemental Protests Are Beyond the Scope of This Proceeding.

On February 4, and 5, 2015 (*i.e.*, over a week after comments on the January 15 Tariff Filing were due), Powerex and WPTF submitted filings in this proceeding styled as supplemental protests. Despite that description, however, Powerex's and WPTF's filings do not address any of the tariff revisions contained in the January 15 Tariff Filing. Instead, Powerex and WPTF argue that the CAISO is calculating prices inconsistent with existing tariff requirements pursuant to revisions to the Business Practice Manual for the Energy Imbalance Market.

Powerex's and WPTF's late filings have nothing to do with whether the tariff revisions are just and reasonable. Those late filings are therefore beyond

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29 *See* tariff section 35.

the scope of this proceeding and should be rejected.[30] Nevertheless, the CAISO may decide to separately file an answer to the filings within the 15-day period normally permitted for answers. In any event, because the filings have no bearing on the tariff revisions, they should not delay the Commission's issuance of an order by February 12 that accepts the tariff revisions effective February 13, as requested in the January 15 Tariff Filing.

E. The Tariff Revisions Should Apply to All New EIM Entities.

WPTF requests that, even if the Commission accepts the tariff revisions, they should not apply to all future new EIM entities.[31] The Commission should deny WTPF's request.

As the CAISO explained when this issue was raised in the stakeholder process, implementing the tariff revisions for all future new EIM entities is preferable to requesting additional waivers for new EIM entities in the future on an ad hoc basis.[32] The tariff revisions will provide certainty that each future new EIM entity and its customers, rather than just the existing new EIM entities and their customers, will enjoy the relief from anomalous prices that the tariff revisions will provide during the 12-month transition period.

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[30] *See, e.g.*, *PJM Interconnection, L.L.C.*, 116 FERC ¶ 61,038, at P 35 (2006) ("Protestors who seek changes regarding the independence of the MMU and its reporting obligations are making recommendations that are not raised in this filing and are therefore beyond the scope of this proceeding. We see no reason to institute a section 206 proceeding to address matters that are more global than the issues properly before us."); *Sithe Edgar LLC*, 95 FERC ¶ 61,230, at 61,795 (2001) (denying request for rehearing and upholding Commission's decision to summarily reject a "protest on the grounds that the protest was not related to the change in status that [was] the subject of [the] proceeding.").

[31] WPTF at 3-5.

[32] Transmittal letter for January 15 Tariff Filing at 17.

F. The Transition Period Should Be a Full 12 Months.

Puget requests that the Commission approve a transition period based on performance benchmarks rather than the 12-month transition period proposed in the January 15 Tariff Filing.[33] The Commission should reject this alternative proposal.

The CAISO addressed this very issue in the stakeholder process for the January 15 Tariff Filing. Operational challenges differ between seasons and may require different operational or business process revisions that cannot be identified until actual system conditions occur. Accordingly, the 12-month transition period is necessary to give each new EIM entity sufficient operational experience to address seasonal and other changes in system conditions over the course of a full year.

The CAISO has proposed the 12-month transition period based on its many years of experience with implementing new and substantive market enhancements. This has led the CAISO to seek Commission approval of similar transition periods in the past. For example, the Commission approved the CAISO's proposal to establish a price cap and price floor for the first year of operations under the CAISO's new market design that the CAISO explained were needed as "market participants transition[ed] into a new market design and gain[ed] experience under" it.[34] The Commission also directed that the transitional price cap and price floor be in place for 12 months, because

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[33] Puget at 4-6.

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

> expiration of the tariff provision [after] three months or 180 days may not provide the CAISO sufficient time to evaluate actual market outcomes due to the *seasonal variations* that might occur outside [those] time periods. Instead, we find that a twelve month period will provide the CAISO with sufficient time to evaluate market outcomes under both peak and non-peak conditions.[35]

Similarly, the transition period under the January 15 Tariff Filing needs to address differing system conditions as new EIM entities gain experience with seasonal and other changes in system conditions over the course of a full 12 months. Therefore, the Commission should accept the CAISO's proposed 12-month transition period rather than Puget's alternative proposal.[36]

The CAISO's December 15 January 15 informational reports illustrate the need for a 12-month transition period. The reports show that PacifiCorp is addressing the transitional issues and its practices are improving. However, the data also shows that addition transitional issues that the EIM entity has not previously faced may arise and require resolution. For example, with the holiday period, it is the CAISO's understanding that changes in personnel resulted in additional issues that caused more infeasible market-clearing solutions due to a lack of effective economic bids to clear the 15-minute and 5-minute markets (a circumstance that this answer refers to as "infeasibilities" for short).

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35 *Id.* (emphasis added).

36 *See Cal. Indep. Sys. Operator Corp.*, 141 FERC ¶ 61,135, at P 44 ("Upon finding that CAISO's Proposal is just and reasonable, we need not consider the merits of alternative proposals.").

G. The Revision of the Flexible Ramping Constraint Relaxation Parameter Is Appropriate and Does Not Require Additional Analysis.

Puget states that the tariff revision to reduce the flexible ramping constraint relaxation parameter from an amount of $60 to an amount between $0 and $0.01 will allow the CAISO's market optimization to ignore the flexible ramping constraint by applying no penalty value to a failure to meet the flexible ramping requirement.[37] Puget misunderstands how the revised flexible ramping constraint relaxation parameter will operate. The CAISO explained in the January 15 Tariff Filing that the CAISO will apply the existing tariff rules regarding relaxation of the transmission constraint in the scheduling run of the market software and will apply the proposed tariff revisions only in the pricing run.[38] Similarly, the CAISO will apply the existing flexible ramping constraint relaxation parameter amount of $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. Otherwise the existing $60 parameter would serve as a floor in the pricing run and would prevent an economic bid lower than $60 from setting the price. Making this change in the pricing run 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. Thus, the tariff revisions will not cause the CAISO to ignore the flexible ramping constraint.

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[37] Puget at 6.

[38] Transmittal letter for January 15 Tariff Filing at 15.

In addition, neither the scheduling run nor the pricing run for the flexible ramping constraint relaxation parameter has an effect on the flexible ramp sufficiency test that occurs before the Energy Imbalance Market optimization starts. The determination of whether if the EIM entity has bid sufficient flexible capacity is determined at T-40. If the CAISO determines at that time that the EIM entity has not bid sufficient flexible capacity, then the CAISO freezes transfers to other areas to avoid the EIM entity "leaning" on the Energy Imbalance Market. Only after the sufficiency test is performed, and only if the EIM entity has issues that make it appear that the EIM entity is subject to conditions that are exhausting the flexible ramping capacity, do the scheduling and pricing parameters become relevant. However, if these conditions do not reflect the actual system conditions, as has been the case when the shortages in flexible ramping capacity arise due to lack or misalignment of information, then it would be inappropriate to set the energy price based on such an administrative parameter.

If an artificial energy shortage occurs in the 15-minute market run, the market will allow all flexible ramping capacity to convert to energy regardless of the amount of the scheduling run parameter. This occurs because, in the scheduling run, energy infeasibilities have a higher priority (or penalty parameter) than the flexible ramping constraint. Therefore, if energy is infeasible, all flexible ramping capability has already been used to meet energy, and the same ramping capability is maintained in the pricing run regardless of the amount of the parameter (*e.g.*, $60 or $0). Rather, the ramping capability only affects the energy price. The flexible ramping constraint ensures that ramping capability is maintained in cases when the energy constraint is not infeasible. This helps to position ramping capability and to commit resources to maintain ramping capability.

Puget also states that the counterfactual prices shown in the CAISO's January 15 informational report indicate that the proposed revision of the flexible ramping constraint relaxation parameter may cause increased volatility in 5-minute market prices. Puget requests that the CAISO perform further analysis of market data to address this matter.[39]

There is no need for the CAISO to perform any such additional analysis. The CAISO has been evaluating and reporting the causes of ramping inflexibility in some market intervals since the start of the Energy Imbalance Market. As discussed in the December 15 and January 15 informational reports, the ramping inflexibility observed by the market software is substantially related to PacifiCorp's transition to the new market environment and to the power balance infeasibilities given the combined procurement of energy and flexible ramping capacity in the fifteen minute market. PacifiCorp has had to modify its business and operational practices substantially. While PacifiCorp has taken significant steps in that regard, it has nevertheless had a tight margin for error when operating in the real-time market before the market software has received incorrect information and produced a market solution that reflects those tight market characteristics. The CAISO will continue to evaluate and report on the

[39] Puget at 6-7.

causes of power balance infeasibilities and ramping inflexibility in the market in the future.

Puget also misinterprets the meaning of the counterfactual cases described in the December 15 and January 15 informational reports. The counterfactual cases do not reflect actual market conditions. Rather, they reflect the pricing in the relevant market intervals that would have resulted if the CAISO had applied the maximum energy bid price of $1,000/MWh under the existing tariff when a constraint was relaxed. The counterfactual cases do not indicate whether the market and operational conditions are actually as constrained as the market clearing software believes it is. It is also important to note that whether the EIM entity triggers the constraint relaxation under the tariff depends on the information provided to the market systems. If the information going to the market systems does not reflect actual conditions due to processing issues, the EIM entity's triggering the relaxation of constraints is not necessarily an indication of actual inflexible ramping conditions.

III. Conclusion

The Commission should accept the tariff revisions contained in the January 15 Tariff Filing as submitted.

Respectfully submitted,

/s/ Anna McKenna
Anna McKenna

Roger E. Collanton
General Counsel
Anna McKenna
Assistant General Counsel
John C. Anders
Lead Counsel
California Independent System
Operator Corporation
250 Outcropping Way
Folsom, CA 95630
Tel: (916) 351-4400
Fax: (916) 608-7222
E-mail: amckenna@caiso.com
janders@caiso.com

Michael E. Ward
Bradley R. Miliauskas
Alston & Bird LLP
The Atlantic Building
950 F Street, NW
Washington, DC 20004
Tel: (202) 239-3300
Fax: (202) 654-4875
E-mail: michael.ward@alston.com
bradley.miliauskas@alston.com

Counsel for the California Independent System Operator Corporation

Dated: February 5, 2015

CERTIFICATE OF SERVICE

I hereby certify that I have served the foregoing document upon all of the parties listed on the official service list for the above-referenced proceeding, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2010).

Dated at Washington, DC this 5th day of February, 2015.

/s/ Bradley R. Miliauskas
Bradley R. Miliauskas