

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

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

**PETITION FOR LIMITED TARIFF WAIVER**

The California Independent System Operator Corporation (“CAISO”) respectfully requests that the Commission grant a limited waiver of section 27.10 of the CAISO tariff to allow the CAISO to set the flexible ramping constraint relaxation parameter applicable to the balancing authority area of an Energy Imbalance Market (“EIM”) entity between \$0 and \$0.01 whenever the CAISO implements the existing, Commission-authorized waiver of pricing parameters set forth in tariff sections 27.4.3.2 and 27.4.3.4.<sup>1</sup> The CAISO submits this request in response to the directives in the Commission’s June 19, 2015, order extending the existing waiver of sections 27.4.3.2 and 27.4.3.4.<sup>2</sup>

Waiver of tariff section 27.10 is a necessary complement to the existing Commission-authorized waiver of tariff sections 27.4.3.2 and 27.4.3.4, as part of the CAISO’s energy market optimization that includes both a scheduling run and a pricing run.<sup>3</sup> Under the existing waiver, when the CAISO relaxes the transmission and power

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<sup>1</sup> The CAISO submits this petition for waiver pursuant to Rule 207 of the Commission’s Rules of Practice and Procedure, 18 C.F.R. § 385.207 (2104).

<sup>2</sup> *Cal. Indep. Sys. Operator Corp.*, 151 FERC ¶ 61,247 (2015) (“June 19 Order”).

<sup>3</sup> The CAISO uses binding awards from the scheduling run and binding prices from the pricing run. In principle and under normal conditions, the CAISO expects the outcomes between the scheduling and pricing runs to be consistent.

balance constraints as part of the pricing run, it will set the price in the Energy Imbalance Market based on the last effective economic bid, instead of using the relaxation parameter price. In order to effectively implement this waiver mechanism, the CAISO must set the flexible ramping constraint to \$0, or a value close to zero, for the individual PacifiCorp East and PacifiCorp West balancing authority areas in the CAISO's pricing run. Otherwise, the pricing run could establish Energy Imbalance Market prices based on the value of the flexible ramping constraint relaxation parameter and not on the last economic bid unless it was greater than the parameter price. This would be contrary to the purpose of the existing waiver.

Like the existing Commission-approved waiver of tariff sections 27.4.3.2 and 27.4.3.4, the requested waiver of tariff section 27.10 will only apply to constraints that are within the PacifiCorp balancing authority areas (PacifiCorp East and PacifiCorp West) or affect EIM transfers between PacifiCorp's balancing authority areas. The CAISO requests that the Commission permit the waiver of tariff section 27.10 to go into effect as of June 19, 2015, and last until the existing waiver of tariff sections 27.4.3.2 and 27.4.3.4 expires.

## **I. Background**

### **A. Relevant CAISO Tariff Provisions**

The CAISO operates its day-ahead market and real-time market, and their component CAISO markets processes, using a set of integrated optimization programs. These programs include security constrained unit commitment and security constrained economic dispatch.<sup>4</sup> In instances where effective economic bids are sufficient to allow a

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<sup>4</sup> Tariff section 27.4.

feasible market solution, CAISO market participants pay or receive the applicable fifteen-minute market or real-time dispatch locational marginal price (“LMP”).<sup>5</sup>

In some cases, however, there is a lack of effective economic bids to allow a feasible market clearing solution or modeled imbalance energy needs do not reflect actual conditions due to timeliness of receipt of accurate data from the EIM Entity balancing authority area regarding manual actions they have taken. In such circumstances, the optimization software must relax non-priced constraints, such as identified transmission constraints or system energy-balance constraints (sometimes called power balance constraints) to enable the market to reach a feasible solution in the pricing run, the price for relaxing the constraint reflects the constraint relaxation pricing parameter.<sup>6</sup> Therefore, during such intervals, market clearing prices are not based on submitted bids, but are instead are driven by the parameter price. The CAISO tariff specifies the pricing parameters that will be the basis for pricing energy in instances where the market clearing software adjusts one or more non-priced quantities.<sup>7</sup>

Tariff section 27.4.3.2 states that, for the purpose of determining how the relaxation of a transmission constraint will affect the determination of prices in the real-

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<sup>5</sup> Tariff section 34.20.1. Real-time market transactions are settled at the dispatch interval LMPs in accordance with tariff section 11.5. Tariff section 34.20.2.2. *See also generally* tariff sections 27 and 34 and tariff appendix C.

<sup>6</sup> Tariff section 27.4.3.

<sup>7</sup> *Id.* The pricing parameters are specified in tariff sections 27.1.2.3, 27.4.3.2, 27.4.3.3, and 27.4.3.4. The complete set of pricing parameters used in all CAISO markets is maintained in the Business Practice Manuals. *Id.* These parameters only apply to the pricing run. It is also possible that the software may need to relax the constraints in the scheduling run to clear the market, but that the pricing run does not price based on the parameters if the applicable constraints are not relaxed in the pricing run. In such cases, the pricing run does not produce prices based on the relaxation of the constraint because there was no such relaxation in the pricing run.

time market, the CAISO will set the pricing parameter at the maximum energy bid price specified in tariff section 39.6.1.1, which is \$1,000 per megawatt-hour, or in the case of oversupply conditions, the minimum energy bid price of negative \$150 per MWh. When the market works as expected, this parameter appropriately reflects the cost to the market of the lack of economic energy supply bids that would have been necessary to avoid relaxing the transmission constraint. Similarly, tariff section 27.4.3.4 states that, in the real-time market in instances where energy offers are insufficient to meet the CAISO forecast of CAISO demand, the market software will relax the system energy-balance constraint using the same pricing parameter that applies to the relaxation of the transmission constraints, *i.e.*, the maximum energy bid price specified in tariff section 39.6.1.1.

The CAISO tariff also permits the CAISO to enforce a flexible ramping constraint in the optimization of the real-time market to ensure the availability of requisite capacity for unit commitment or dispatch of resources for real-time dispatch intervals between the applicable commitment or dispatch period.<sup>8</sup> Tariff section 27.10 includes a flexible ramping constraint relaxation parameter set at \$60.

#### **B. Effects of the Pricing Parameters During the Implementation of the Energy Imbalance Market**

The Energy Imbalance Market provides other balancing authority areas the opportunity to participate in the real-time market for imbalance energy that the CAISO operates in its own balancing authority area.<sup>9</sup> PacifiCorp's balancing authority areas

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<sup>8</sup> Tariff section 27.10; tariff appendix A, definition of "Flexible Ramping Constraint".

<sup>9</sup> See *Cal. Indep. Sys. Operator Corp.*, 147 FERC ¶ 61,231, *order on reh'g, clarification, and compliance*, 149 FERC ¶ 61,058 (2014) (conditionally accepting proposed CAISO tariff revisions to implement the Energy Imbalance Market).

(PacifiCorp East and PacifiCorp West) were the first two to join the Energy Imbalance Market.<sup>10</sup>

As the CAISO has described in prior filings, after PacifiCorp began participating in the Energy Imbalance Market on November 1, 2014, certain transitional conditions arose that restricted the timing and amount of capacity available through the market clearing process.<sup>11</sup> These conditions caused the transmission and system energy-balance constraints described in tariff sections 27.4.3.2 and 27.4.3.4 to bind more frequently than expected, producing atypically anomalous prices in the fifteen-minute and five-minute markets in the PacifiCorp balancing authority areas.<sup>12</sup>

### **C. Waiver Requests**

The CAISO filed the November 13 Waiver Petition to address the anomalous effect on prices resulting from the transitional conditions described above and in prior filings with the Commission. Therein, the CAISO requested that the Commission grant limited waiver of tariff section 27.4.3.2 and the second sentence of tariff section 27.4.3.4 so that the CAISO would retain the ability to relax the transmission and power balance constraints but not apply the pricing parameter that establishes the price at the maximum energy bid price of \$1,000 per megawatt-hour. Instead, the CAISO proposed to use the pricing mechanism that applies when effective economic bids are sufficient to

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<sup>10</sup> See *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 Energy Imbalance Market).

<sup>11</sup> See, e.g., *Cal. Indep. Sys. Operator Corp.*, 150 FERC ¶ 61,191 at PP 3, 7; June 19 Order at PP 2, 7.

<sup>12</sup> Further details regarding the conditions discussed above are provided in the CAISO's Petition for Limited Tariff Waiver and Request for Expedited Consideration, Docket No. ER15-402-000, at 7-11 (Nov. 13, 2014) ("November 13 Waiver Petition").

allow a feasible market solution, *i.e.*, market participants would pay or receive the applicable fifteen-minute market or real-time dispatch LMPs based on the last economic bid prior to infeasibility, consistent with tariff sections 27 and 34 and tariff appendix C. The CAISO requested that the waiver apply solely to constraints within the PacifiCorp East and PacifiCorp West balancing authority areas and to constraints that affect EIM transfers between those two EIM balancing authority areas. The CAISO asked the Commission to act expeditiously and make the limited waiver effective for the 90-day period from November 14, 2014, through February 12, 2015.<sup>13</sup>

On December 1, 2014, the Commission granted the November 13 Waiver Petition, effective from November 14, 2014, through February 12, 2015, as requested by the CAISO.<sup>14</sup>

On December 31, 2014, the CAISO filed a further petition in Docket No. ER15-817-000 to extend the waiver of tariff section 27.4.3.2 and the second sentence of tariff section 27.4.3.4 to the period from November 1 through November 13, 2014. Commission action on that further waiver request is pending.

#### **D. Tariff Amendment Filing and Extensions of Waiver**

To prevent the transitional conditions referenced above from causing anomalous prices after the integration of a new EIM entity, the CAISO filed a tariff amendment in Docket No. ER15-861-000 on January 15, 2015 in which it proposed to apply the pricing

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<sup>13</sup> *Id.* at 12-17. The CAISO also explained that it would perform a review and consider, in the planned stakeholder process for enhancements to the Energy Imbalance Market, whether it should propose a similar approach beyond the 90-day period for other EIM entities besides PacifiCorp East and PacifiCorp West. The CAISO stated that it would file a tariff amendment rather than request additional waivers of its current tariff authority if it concluded that relief from similar conditions was necessary in the future. *Id.* at 12, 14.

<sup>14</sup> *Cal. Indep. Sys. Operator Corp.*, 149 FERC ¶ 61,294 (2014) (“December 1 Order”).

parameter waiver treatment to all new EIM entities, for a 12-month transition period. The tariff amendment filing also included a tariff revision to state that during the 12-month transition period, the CAISO would set the flexible ramping constraint relaxation parameter specified in tariff section 27.10 in a range between \$0 and \$0.01 for each EIM entity's balancing authority area. The CAISO explained that this tariff revision would allow the market software to effectuate the use of the last economic bid mechanism.<sup>15</sup>

On February 12, 2015, the Commission issued an order extending the waiver granted in the December 1 Order until the earlier of March 16, 2015, or the date the Commission issued a subsequent order in the proceeding.<sup>16</sup>

On March 16, 2015, the Commission issued an order that, *inter alia*, (1) rejected the CAISO's proposed tariff revisions; (2) "institute[d] an investigation [and associated technical conference] under section 206 of the FPA [Federal Power Act] 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 [balancing authority areas]"; and (3) granted a further extension of the waiver authorized in the December 1 Order from March 16, 2015, until the refund effective date established in the FPA section 206 investigatory proceeding, *i.e.*, June 22, 2015.<sup>17</sup>

On April 15, 2015, the CAISO filed a motion for relief or, in the alternative, a request for rehearing of the March 16 Order, in which the CAISO sought (1) to revise

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<sup>15</sup> Transmittal letter for Tariff Amendment to Implement Transition Period Pricing for Energy Imbalance Market, Docket No. ER15-861-000, at 2, 15-16 (Jan. 15, 2015).

<sup>16</sup> *Cal. Indep. Sys. Operator Corp.*, 150 FERC ¶ 61,086 (2015).

<sup>17</sup> *Cal. Indep. Sys. Operator Corp.*, 150 FERC ¶ 61,191, at PP 29-34, 36-37 (2015); 80 Fed. Reg. 15594 (Mar. 24, 2015) (establishing refund effective date).

the refund effective date established pursuant to the March 16 Order to the latest refund effective date permitted under FPA section 206, *i.e.*, August 24, 2015; and (2) to further extend the waiver originally granted in the December 1 Order to the date of the CAISO's compliance with an order resolving the investigatory proceeding.<sup>18</sup> The CAISO also explained that, to effectuate the price discovery resulting from the waiver of tariff sections 27.4.3.2 and 27.4.3.4, it was "necessary to adjust the penalty price for the flexible ramping constraint parameter [set forth in tariff section 27.10] for the EIM balancing authority area in order to allow the market software to discover the marginal energy bid price that would set the locational marginal price, to avoid otherwise setting the price at the constraints parameter."<sup>19</sup> Similarly, the CAISO explained in an answer it filed subsequently in the proceeding that the adjustment of the penalty price set forth in tariff section 27.10 is an integral part of the existing waiver of tariff sections 27.4.3.2 and 27.4.3.4.<sup>20</sup>

In the June 19 Order, the Commission granted the CAISO's request for a limited extension of the waiver of the pricing parameters in tariff sections 27.4.3.2 and 27.4.3.4, effective June 23, 2015, and ending on the date of the CAISO's compliance with an order resolving the investigatory proceeding.<sup>21</sup> The Commission "acknowledge[d] CAISO's assertion that setting the flexible ramping constraint to \$0, or a value close to zero, for the PacifiCorp East and PacifiCorp West BAAs appears to be a necessary

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<sup>18</sup> Motion for Relief Pending Order on Section 206 Proceeding or, in the Alternative, Request for Rehearing, Docket Nos. ER15-861-000 and EL15-53-000, at 5-9 (Apr. 15, 2015) ("April 15 Motion").

<sup>19</sup> *Id.* at 3 n.2.

<sup>20</sup> Motion for Leave to File Answer and Answer to the Answer of Powerex Corp., Docket Nos. ER15-861-000 and EL15-53-000, at 4-6 (May 13, 2015).

<sup>21</sup> *Cal. Indep. Sys. Operator Corp.*, 151 FERC ¶ 61,247 (2015).

action to effectuate the existing waiver granted for the Energy Imbalance Market pricing parameters.”<sup>22</sup> After noting that the CAISO had not yet requested, and the Commission had not yet granted, a request for waiver of tariff section 27.10, the Commission directed that

to the extent that CAISO intends to continue setting the flexible ramping constraint to \$0, or a value close to zero, when CAISO waives the applicability of section 27.4.3.2 and the second sentence of section 27.4.3.4 of its tariff for constraints that are within PacifiCorp’s BAAs or affect EIM transfers between PacifiCorp’s BAAs, we direct CAISO to file, no later than 10 days from the date of this order [*i.e.*, by June 29, 2015], a request to waive the penalty price for the flexible ramping constraint relaxation parameter in section 27.10 of its tariff on a prospective basis.<sup>23</sup>

## II. Request for Limited Waiver

The CAISO submits this request for limited waiver of tariff section 27.10 in accordance with the June 19 Order. This waiver is necessary in order to effectuate the existing waiver of tariff sections 27.4.3.2 and 27.4.3.4.

The Commission has previously granted requests for tariff waivers in situations where (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.<sup>24</sup> This request satisfies all three elements. Therefore, good cause exists to grant the CAISO’s request for waiver.

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<sup>22</sup> *Id.* at P 20.

<sup>23</sup> *Id.* With respect to the period prior to the prospective period described above, the Commission noted that it “has broad discretion with respect to remedies and has, as a general matter, declined to require resettlement of the market, in circumstances like this one, when doing so would create uncertainty and undermine confidence in the markets, and when customers cannot revisit their past economic decisions.” *Id.* at P 20 n.46 (citing Commission and court precedent). Also, because the Commission granted the CAISO’s request to revise the refund effective date, as well as its request to extend the limited waiver of tariff sections 27.4.3.2 and 27.4.3.4, the Commission dismissed the CAISO’s alternative request for rehearing as moot. *Id.* at P 21.

<sup>24</sup> See, e.g., *N.Y. Indep. Sys. Operator, Inc.*, 146 FERC ¶¶ 61,061, at P 19 (2014); *PJM Interconnection, L.L.C.*, 146 FERC ¶¶ 61,041, at P 5 (2014); *PJM Interconnection, L.L.C.*, 141 FERC ¶¶ 61,103, at P 8 (2012); *N.Y. Indep. Sys. Operator, Inc.*, 139 FERC ¶¶ 61,108, at P 14 (2012); *ISO New*

First, the waiver will be of limited scope. It will only apply when the CAISO relaxes a transmission constraint or system energy-balance constraint in or between the PacifiCorp balancing authority areas pursuant to the existing waiver of tariff sections 27.4.3.2 and 27.4.3.4. Further, the waiver of the flexible ramping constraint parameter will only last as long as the existing waiver.

Second, the waiver will address a concrete problem that needs to be remedied and is a necessary complement to the existing waiver of tariff sections 27.4.3.2 and 27.4.3.4. As explained above, the purpose of the existing waiver is to allow the CAISO to retain the ability to relax the constraints described in those sections while also using the pricing mechanism that applies when effective economic bids are sufficient to allow a feasible market solution (*i.e.*, market participants pay or receive the applicable fifteen-minute market or real-time dispatch LMPs), instead of having to set the price at the applicable relaxation parameter. In order to implement the existing waiver, however, and to enable the CAISO to establish pricing based on the last economic bid when the constraints are relaxed in the scheduling run, the CAISO must set the flexible ramping constraint to \$0, or a value close to zero, in the pricing run for the individual PacifiCorp East and PacifiCorp West balancing authority areas.<sup>25</sup> Otherwise, the pricing run could establish prices based on the value of the flexible ramping constraint relaxation parameter rather than the last economic bid, which would be contrary to the purpose of the existing waiver.

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

<sup>25</sup> The flexible ramping constraint relaxation parameter has been set to \$0 only for PacifiCorp East and PacifiCorp West because the existing waiver only applies for purposes of addressing transmission and power balance constraints in the Energy Imbalance Market balancing authority areas.

Third, the waiver will have no undesirable consequences, such as harming third parties. The waiver will affect prices in EIM entity balancing authority areas only and will not apply to prices in the CAISO balancing authority area. To date, the price excursions described above have resulted in Energy Imbalance Market transfers of energy to or from PacifiCorp's balancing authority areas, as intended by the design, but the EIM transfers have not propagated price excursions in other balancing authority areas. The CAISO does not anticipate there to be a material impact on prices outside of the EIM entity balancing authority areas. The waiver would benefit customers that would otherwise be subject to unwarranted price excursions not supported by actual economic conditions on the system.

For the same reasons that the Commission granted a waiver of tariff sections 27.4.3.2 and 27.4.3.4, the Commission should grant the limited waiver of section 27.10 requested herein that is necessary to fully effectuate the existing waiver.

### **III. Request for June 19, 2015, Effective Date**

The CAISO respectfully requests that the Commission make the limited waiver of tariff section 27.10 effective on June 19, 2015, *i.e.*, prospectively from the date of the Commission's order directing the CAISO to file a waiver request if it wished to continue to set the flexible ramping constraint relaxation parameter applicable to the balancing authority area of an EIM entity between \$0 and \$0.01 whenever the CAISO implements the existing waiver of pricing parameters set forth in tariff sections 27.4.3.2 and 27.4.3.4.

The requested effective date will not conflict with the filed rate doctrine or the rule against retroactive ratemaking. The filed rate doctrine "does not extend to cases in

which the buyers are on adequate notice that resolution of some specific issue may cause a later adjustment to the rate being collected at the time of service.”<sup>26</sup> Such notice exists here based on the CAISO’s statements that it has, and must, set the flexible ramping constraint relaxation parameter between \$0 and \$0.01 in order to effectuate the Commission’s waiver of the transmission and system energy-balance constraint pricing parameters, and the Commission’s acknowledgement thereof in the June 19 Order along with its directive that the CAISO make the instant waiver filing. As the Commission stated in the June 19 Order:

to the extent that CAISO intends to continue setting the flexible ramping constraint to \$0, or a value close to zero, when CAISO waives the applicability of section 27.4.3.2 and the second sentence of section 27.4.3.4 of its tariff for constraints that are within PacifiCorp’s BAAs or affect EIM transfers between PacifiCorp’s BAAs, we direct CAISO to file, no later than 10 days from the date of this order, a request to waive the penalty price for the flexible ramping constraint relaxation parameter in section 27.10 of its tariff on a prospective basis.<sup>27</sup>

#### **IV. Service**

The CAISO has served copies of this filing upon the California Public Utilities Commission and all parties with effective scheduling coordinator service agreements under the CAISO tariff. In addition, the CAISO has posted this filing on its website.

#### **V. Correspondence**

The CAISO requests that all correspondence, pleadings, and other communications concerning this filing be served upon the following:

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<sup>26</sup> *Natural Gas Clearinghouse v. FERC*, 965 F.2d 1066, 1075 (D.C. Cir. 1992).

<sup>27</sup> June 19 Order at P 20.

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## **VI. Conclusion**

For the foregoing reasons, the CAISO requests that the Commission grant a limited waiver of CAISO tariff section 27.10 as discussed above effective from June 19, 2015, through the end of the existing waiver period applicable to CAISO tariff sections 27.4.3.2 and 27.4.3.4.

Respectfully submitted,

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