# UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

California Independent System	)	Docket No. ER21-955	
Operator Corporation	)		
	)	Docket No. ER23	000

FILING FOR WITHDRAWAL OF PREVIOUSLY ACCEPTED TARIFF REVISIONS OR, IN THE ALTERNATIVE, LIMITED AMENDMENT TO REMOVE THE TARIFF REVISIONS, OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

The California Independent System Operator Corporation (CAISO)<sup>1</sup> submits this filing to withdraw or, in the alternative, amend its Tariff to remove certain revisions previously accepted by the Commission in Docket No. ER21-955 that are currently scheduled to go into effect by October 1, 2023 (collectively, the Submission Deadline Revisions).<sup>2</sup> The Submission Deadline Revisions consist of revisions to the CAISO Tariff that would move the final submission deadline for Western Energy Imbalance Market (WEIM) base schedules from 40 minutes to 30 minutes before the start of each operating hour and would

Capitalized terms not otherwise defined herein have the meanings set forth in the CAISO Tariff.

The CAISO submits this filing pursuant to Section 35.17(c) of the Commission's regulations (18 C.F.R. § 35.17(c)), which states that where tariff revisions have been suspended by the Commission, they may be withdrawn during the period of suspension "by special permission of the Commission granted upon application therefor and for good cause shown." In the alternative, the CAISO submits this filing pursuant to Section 205 of the Federal Power Act (16 U.S.C. § 824d) and Part 35 of the Commission's regulations (18 C.F.R. Part 35), which allow the removal of revisions from a tariff upon a Commission finding their removal is just and reasonable.

introduce an additional WEIM resource sufficiency evaluation at that 30-minute point.<sup>3</sup>

The CAISO's testing and market simulation shows the Submission

Deadline Revisions cannot be implemented in a manner that is reliable and efficient for customers. The requested withdrawal or amendment will allow the CAISO to retain its existing just and reasonable deadline for WEIM base schedules and resource sufficiency evaluations. In these circumstances, good cause exists and it is just and reasonable not to implement the Submission

Deadline Revisions. The CAISO respectfully requests that the Commission issue an order by September 29, 2023 accepting the withdrawal or removal of the Submission Deadline Revisions effective October 1, 2023.

### I. Background

## A. The Current Timeline for WEIM Base Schedule Submissions and Resource Sufficiency Evaluations

From the time the WEIM began operations in November 2014,<sup>4</sup> the final submission deadline for WEIM base schedules has been 40 minutes before the start of the operating hour (also called T-40).<sup>5</sup> No party commented on or

Specifically, the Submission Deadline Revisions consist of the revisions to CAISO Tariff sections 29.34(f)(1)(C), 29.34(f)(1)(D), 29.34(k), 29.34(l)(4)(A), 29.34(l)(4)(B), 29.34(m)(6)(i), 29.34(m)(6)(ii), 29.34(n)(1), 29.34(n)(2), 30.5.7.1, 30.5.7.2, 30.5.7.3, 30.5.7.4, 30.5.7.5, 34.1.6.1, 34.1.6.2, 34.3.1, and 34.4 shown in red-line format in Attachment D to the tariff amendment the CAISO submitted in Docket No. ER21-955 on January 27, 2021. All of these tariff revisions are currently listed as accepted with an effective date of 12/31/9998 in the Commission's eTariff system.

The WEIM is generally addressed in CAISO Tariff section 29, *et seq.* and was formerly called the energy imbalance market (EIM). That former name is still used in some WEIM-related provisions and defined terms in the existing Tariff and in some other documents.

See transmittal letter for CAISO Tariff Amendments to Implement an Energy Imbalance Market, Docket No. ER14-1386-000, at 24 (Feb. 28, 2014); *id.* at Attachment B (Marked Tariff), at new tariff section 29.34(f)(1)(C); *id.* at Attachment C (Declaration of Donald G. Tretheway), at

protested this deadline when the CAISO proposed it as part of the initial set of CAISO Tariff revisions to implement the WEIM design. The Commission, in its order conditionally accepting those Tariff revisions, found the final submission deadline of T-40 to be just and reasonable.<sup>6</sup>

Also, since the beginning of WEIM operations in 2014, the CAISO has performed a series of WEIM resource sufficiency evaluations for each operating hour to determine if each balancing authority area in the WEIM has sufficient capacity and flexibility to meet the forecasted demand and that the WEIM base schedules as submitted are feasible and balanced. The CAISO performs advisory (*i.e.*, non-binding) resource sufficiency evaluations at 75 minutes and 55 minutes before the operating hour (T-75 and T-55, respectively), and a final (*i.e.*, binding) resource sufficiency evaluation at T-40.<sup>7</sup> The final WEIM resource sufficiency evaluation takes place immediately after the final submission deadline for WEIM base schedules.

The results of the WEIM revenue sufficiency evaluation serve as an input determining both potential WEIM entity transfer limits and flexible ramping product requirements in the subsequent fifteen-minute market. Specifically, the results of the final WEIM revenue sufficiency evaluation serve as an input of the fifteen-minute market run for the first fifteen-minute interval of the operating hour. Generation of these final WEIM resource sufficiency evaluation results does not

paragraphs 19 and 28.

See Cal. Indep. Sys. Operator Corp., 147 FERC ¶ 61,231, at PP 38-39, 77, 84 (2014).

<sup>&</sup>lt;sup>7</sup> See Cal. Indep. Sys. Operator Corp., 175 FERC ¶ 61,096, at P 17 (2021).

change the time by which the market run needs to be completed; rather, it determines how much time the market optimization has to complete.

#### B. The Submission Deadline Revisions

On January 27, 2021, as amended on March 25, 2021, the CAISO filed a number of revisions to its Tariff in Docket No. ER21-955 to enhance real-time settlement and base schedule submission in the WEIM (2021 Tariff Amendment). The revisions in the 2021 Tariff Amendment included the Submission Deadline Revisions, which had two related components. First, the CAISO proposed to move the final hourly submission deadline for WEIM base schedules from T-40 to T-30. Second, the CAISO proposed to perform an additional WEIM resource sufficiency evaluation at T-30, which would be the final WEIM resource sufficiency evaluation for the operating hour, and to make the existing WEIM resource sufficiency evaluation performed at T-40 the last advisory WEIM resource sufficiency evaluation for the operating hour (rather than the final resource sufficiency evaluation as it is now).

On April 30, 2021, the Commission issued an order accepting the Submission Deadline Revisions effective October 1, 2021, subject to the CAISO submitting a subsequent filing within five business days after the actual implementation date to specify the effective date associated with the tariff records for the Submission Deadline Revisions.<sup>9</sup> The Commission found that the

Transmittal letter for 2021 Tariff Amendment at 3, 13-14.

<sup>&</sup>lt;sup>9</sup> Cal. Indep. Sys. Operator Corp., 175 FERC ¶ 61,096, at PP 16-19, 24, 27. The Commission also accepted in part and rejected in part other revisions to the CAISO Tariff revisions proposed in the 2021 Tariff Amendment not relevant to this filing. See id. at PP 4-15, 24-26, 27-28.

Submission Deadline Revisions were just and reasonable because they would allow WEIM participants to submit more timely and accurate WEIM base schedules closer to the operating hour, *e.g.*, a T-30 deadline for submitting WEIM base schedules would better align with the Bonneville Power Administration's (BPA) timeline for designating its customers' hourly energy scheduled based on its hydroelectric production forecast.<sup>10</sup>

On September 30, 2021, the CAISO filed a petition for limited tariff waiver to postpone the effective date of the Submission Deadline Revisions to October 1, 2022, subject to the same requirement to submit a subsequent filing within five business days after the actual implementation date to specify their effective date. The Commission issued an order granting the petition on October 29, 2021. 11

On August 30, 2022, the CAISO filed another petition for limited tariff waiver to postpone the effective date of the Submission Deadline Revisions to October 1, 2023, subject to the same requirement to submit a subsequent filing within five business days after the actual implementation date to specify their effective date (August 2022 Petition). The CAISO explained in the August 2022 Petition that it was unable to implement the Submission Deadline Revisions by October 1, 2022 because its testing and market simulation, which would need to be successfully completed before the Submission Deadline Revisions could go

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o Id. at P 27 & n.36.

Cal. Indep. Sys. Operator Corp., 177 FERC ¶ 61,072, at PP 1, 6-7 (2021). The Commission also granted the CAISO's request in the same petition for limited tariff waiver to postpone, until November 1, 2022, the effective date of other tariff revisions proposed in the 2021 Tariff Amendment that would allow a WEIM entity the option to not settle unaccounted for energy in its balancing authority area (UFE Settlement Revisions). *Id.* The UFE Settlement Revisions went into effect on November 1, 2022.

into effect, were not yielding results showing they could be implemented in a manner that is reliable and efficient for customers by the fall of 2022. 12

Specifically, the CAISO explained that its evaluation of its market software performance to date indicated that the real-time market pre-dispatch process (RTPD) would not have sufficient time to run if the Submission Deadline Revisions were to go into effect. Implementing a final WEIM resource sufficiency evaluation at T-30 would shorten the time available to solve the subsequent fifteen-minute market by approximately 10 minutes – instead of having about 16 minutes to solve the fifteen-minute market, the CAISO would only have about six minutes.

In particular, shortening the available solution time would require the RTPD run for intervals 4 and 5 to be completed in approximately six minutes or less, including at least 90 seconds for review. Test results in 2022 indicated this timeframe could not be accommodated without the risk of the RTPD not completing in time, unless and until the CAISO was able to improve performance and shave off approximately one minute of market run time. In the August 2022 Petition, the CAISO also expressed concern that other key market enhancements planned for the fall of 2022 could bear on the overall performance of the applicable software and the timing of results in the production environment. The CAISO explained this functionality should be in production prior to further software testing associated with the Submission Deadline Revisions in order to

<sup>&</sup>lt;sup>12</sup> August 2022 Petition at 3.

confirm whether those revisions can be implemented in a reliable and efficient manner.<sup>13</sup>

Due to these unexpected challenges, the CAISO stated in its August 2022

Petition it had suspended testing and market simulation of the Submission

Deadline Revisions in order to complete the work necessary to implement a key market enhancement completed through another stakeholder initiative, collectively called the Flexible Ramping Product Refinements. The

Commission later issued an order accepting the Flexible Ramping Product Refinements effective as their actual implementation date, which the Commission directed the CAISO to specify in a subsequent informational filing. The CAISO implemented the Flexible Ramping Product Refinements on February 1, 2023.

The CAISO indicated in the August 2022 Petition that it anticipated resuming testing and market simulation of the Submission Deadline Revisions after the Flexible Ramping Product Refinements were implemented.<sup>17</sup> As the

<sup>13</sup> *Id.* at 3-4.

Id. at 4-5. This sequencing was consistent with a commitment the CAISO made to stakeholders, which was included in a memorandum attached to the 2021 Tariff Amendment, to "not implement the new final base schedule submission deadline of 30 minutes prior to the operating hour until after it has implemented the nodal flexible ramping product [i.e., the Flexible Ramping Product Refinements] and testing shows the shortened fifteen-minute market run time is still feasible." 2021 Tariff Amendment, Attachment E, Memorandum from Anna McKenna, Interim Head of Market Policy and Performance, to WEIM Governing Body, at 4 (Nov. 25, 2020). The CAISO Board of Governors had authorized the filing of the Flexible Ramping Product Refinements in October 2020, but due to interdependencies with other software projects and reprioritization of various initiatives, their filing was subsequently postponed until mid-August 2022. See transmittal letter for Tariff Amendment to Refine Flexible Ramping Product, Docket No. ER22-2661-000, at 5 (Aug. 15, 2022).

Cal. Indep. Sys. Operator Corp., 181 FERC ¶ 61,034, at P 14 (2022) (Flexible Ramping Product Refinements Order).

See CAISO informational filing, Docket No. ER22-2661-000 (Feb. 2, 2023).

August 2022 Petition at 4-5.

CAISO explained, resumption of the testing could be crucial to determining whether the Submission Deadline Revisions are viable:

it will remain unclear until further testing following implementation of the Flexible Ramping Product Refinements has been conducted whether the software performance issues associated with the Submission Deadline Revisions can be resolved. It is possible the software performance issues will prove intractable, in which case the CAISO would evaluate the circumstances and follow up with the Commission as appropriate. <sup>18</sup>

On November 3, 2022, the Commission issued an order granting the August 2022 Petition and noting the CAISO would follow up with the Commission as appropriate based on its evaluation of the software performance issues.<sup>19</sup>

### II. Reasons for Withdrawal or Amendment to Remove the Submission Deadline Revisions

Consistent with its plan as described in the August 2022 Petition, the CAISO resumed testing and market simulation of the Submission Deadline Revisions after the Flexible Ramping Product Refinements were implemented on February 1, 2023. The testing and market simulation has revealed that the RTPD run for intervals 4 and 5 still cannot be completed in approximately six minutes or less, including at least 90 seconds for review. Indeed, it now takes about two minutes longer (i.e., about seven and a half minutes) to complete the RTPD run for intervals 4 and 5 than it did before the Flexible Ramping Product

<sup>&</sup>lt;sup>18</sup> *Id.* at 5.

<sup>&</sup>lt;sup>19</sup> Cal. Indep. Sys. Operator Corp., 181 FERC ¶ 61,102, at PP 1, 7, 10-11 (2022) (November 2022 Order).

See the discussion of the RTPD testing in Section I.B of this filing.

Refinements were implemented, which means the expected solution time for the fifteen-minute market is now slightly longer.<sup>21</sup>

The CAISO has determined that the software performance challenges associated with the Submission Deadline Revisions are intractable due to the addition of the Flexible Ramping Product Refinements and all of the requirements put on the real-time market. The CAISO can have no reasonable confidence it would be able to regularly solve the subsequent fifteen-minute market in the approximately six minutes needed to support a WEIM base schedule submission deadline of T-30. As a result, the Submission Deadline Revisions cannot be implemented in a manner that is reliable and efficient for customers.

Although the CAISO anticipated that the Submission Deadline Revisions could have resulted in some improvements in the accuracy of information underlying the WEIM base schedules if those revisions could be reliably implemented, experience over more than eight years of WEIM operations – including experience over the past two years since the CAISO submitted the 2021 Tariff Amendment – consistently shows the existing hourly WEIM base schedule submission deadline and final WEIM resource sufficiency evaluation at T-40 continue to be reliable and efficient elements of the Commission-approved WEIM design. Furthermore, the CAISO believes it would not make sense to undo the Flexible Ramping Product Refinements in hopes of thereby making the

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Nomograms and contingency scenarios may also be implemented, which will further increase the time required for the market to solve.

Submission Deadline Revisions feasible. The Flexible Ramping Product Refinements are critical to ensuring both a more accurate calculation of net-load uncertainty and the ability to meet that uncertainty in the real-time market through deliverable flexible capacity. More accurately ensuring that uncertainty can be met provides broader reliability and market efficacy for the real-time market as a whole.

For these reasons, the CAISO determined it should submit a filing requesting the Commission accept the CAISO's proposal to not implement the Submission Deadline Revisions.

The CAISO held a call with stakeholders on June 15, 2023, to inform them of its proposal and provide a detailed rationale for its determination as well as to respond to stakeholder questions and concerns. Following the stakeholder call, only BPA and NV Energy submitted written comments. BPA in their comments expressed disappointment with the CAISO's decision, stating that the lack of an additional WEIM resource sufficiency evaluation performed at T-30 could reduce the accuracy of the evaluation. BPA acknowledged that the CAISO was unable to implement the proposed functionality and encouraged the CAISO to continue to improve the accuracy of its real-time markets. Further scheduling practices, such as mutually agreed-upon e-tagging deadlines between WEIM entities, have enabled BPA to successfully participate in the WEIM even without a final,

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See Flexible Ramping Product Refinements Order at PP 2-4, 9, 14.

Materials related to the June 15, 2023 stakeholder meeting are available on the CAISO website at <a href="https://stakeholdercenter.caiso.com/StakeholderInitiatives/Western-EIM-base-schedule-submission-deadline">https://stakeholdercenter.caiso.com/StakeholderInitiatives/Western-EIM-base-schedule-submission-deadline</a>.

financially binding WEIM resource sufficiency evaluation performed at T-30. NVE's comments highlighted that a withdrawal of a base schedule submission deadline effectively reduced their time available to meet the uncertainty requirement, whose variability has increased since the implementation of FRP refinements that is tested for in the WEIM RSE. In response, the CAISO is committing to review with stakeholders the new calculation of net-load uncertainty to ensure the increase in variability is correlated to a more accurate forecast of uncertainty. To the extent analysis highlights changes within the uncertainty requirements are warranted, the CAISO would look to make such changes through an open stakeholder process.<sup>24</sup>

In these circumstances, good cause exists and it is just and reasonable not to implement the Submission Deadline Revisions.<sup>25</sup> Therefore, the CAISO respectfully requests that the Commission issue an order by September 29, 2023

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See Memorandum from Anna McKenna, Vice President, Market Design and Analysis, to CAISO Board of Governors and WEIM Governing Body, at 3-4 (July 11, 2023), available at <a href="http://www.caiso.com/Documents/DecisiononWithdrawalofWEIMBaseScheduleSubmissionDeadline-Memo-Jul2023.pdf">http://www.caiso.com/Documents/DecisiononWithdrawalofWEIMBaseScheduleSubmissionDeadline-Memo-Jul2023.pdf</a>. The CAISO Board of Governors and WEIM Governing Body authorized the CAISO to submit this filing at their meeting held on July 19, 2023. See <a href="http://www.caiso.com/Documents/DecisiononWithdrawalofWEIMBaseScheduleSubmissionDeadline-JointMotion-Jul2023.pdf">http://www.caiso.com/Documents/DecisiononWithdrawalofWEIMBaseScheduleSubmissionDeadline-JointMotion-Jul2023.pdf</a>.

This would mean that the existing CAISO Tariff provisions previously accepted by the Commission as just and reasonable, which the Submission Deadline Revisions would have modified, will remain in effect. See November 2022 Order at PP 8, 11 (noting the CAISO's statement that it would continue to operate under the *status quo* absent implementation of the Submission Deadline Revisions).

accepting the withdrawal<sup>26</sup> or removal of the tariff records containing the Submission Deadline Revisions effective October 1, 2023.<sup>27</sup>

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As explained in footnote 2 above, Section 35.17(c) of the Commission's regulations allows the withdrawal of tariff revisions during a period of suspension by permission of the Commission granted upon application therefor and for good cause shown. Although the Commission did not specifically reference a period of suspension in the November 2022 Order, it has referenced periods of suspension in granting other petitions for limited tariff waiver. See, e.g., Cal. Indep. Sys. Operator Corp., 158 FERC ¶ 61,072, at P 5 (2017) ("We grant CAISO's unopposed petition to permit the tariff revisions the Commission previously accepted to be suspended until April 1, 2017."); Cal. Indep. Sys. Operator Corp., 153 FERC ¶ 61,089, at P 5 (2015) ("We will grant CAISO's unopposed petition to permit the tariff revisions the Commission previously accepted to be suspended until October 27, 2015.").

To account for the possibility that the Commission may adopt the CAISO's request in the alternative to remove the Submission Deadline Revisions from the CAISO Tariff, the CAISO is filing tariff records that reflect the removal of the Submission Deadline Revisions. Due to eTariff requirements and limitations, this limited tariff amendment is being filed in a separate new docket from the withdrawal filing, which is being made in Docket No. ER21-955; this pleading serves as the transmittal letter for both separate filings. Because, as explained in footnote 25 above, removing the Submission Deadline Revisions would mean that the existing CAISO Tariff provisions previously accepted by the Commission as just and reasonable, which the Submission Deadline Revisions would have modified, will remain in effect, the CAISO is not including clean or marked tariff sheet attachments in the tariff amendment filing. Commission acceptance of the tariff records in this filing in lieu of withdrawing the tariff records containing the Submission Deadline Revisions will have the same effect that the withdrawal would have, since the tariff records in this filing have a proposed effective date of October 1, 2023 and have been assigned Effective Priority Order values that will result in the Submission Deadline Revisions tariff records having a status of Overtaken by Events (OBE). If the Commission instead accepts the withdrawal of the Submission Deadline Revisions, it can simply reject the tariff records in this filing.

### III. Communications

Pursuant to Rule 203(b)(3) of the Commission's Rules of Practice and Procedure, <sup>28</sup> the CAISO respectfully requests that all correspondence and other communications concerning this filing be served upon:

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### IV. Service

The CAISO has served copies of this filing on the CPUC, the California Energy Commission, and all parties with scheduling coordinator agreements under the CAISO tariff. In addition, the CAISO has posted a copy of the filing on the CAISO website.

<sup>&</sup>lt;sup>28</sup> 18 C.F.R. § 385.203(b)(3). The CAISO respectfully requests that the Commission permit all of the persons listed above to be included on the service list.

### V. Conclusion

For the foregoing reasons, the Commission should issue an order by September 29, 2023 accepting the withdrawal or, in the alternative, amendment to remove the Submission Deadline Revisions effective October 1, 2023.

Respectfully submitted,

/s/ John C. Anders

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