



February 28, 2020

The Honorable Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C. 20426

INFORMATIONAL FILING-NO NOTICE REQUIRED

**Re: California Independent System Operator Corporation
Informational Readiness Certification for the City of Seattle, by and
through its City Light Department's Participation in the Energy
Imbalance Market
Docket No. ER15-861-000**

Dear Secretary Bose:

The California Independent System Operator Corporation (CAISO) submits this informational filing in compliance with section 29.2(b)(6) of the CAISO tariff.¹ The CAISO, in consultation with the City of Seattle, by and through its City Light Department (Seattle), has determined that, following market simulation and an adequate period of parallel operations, the CAISO and Seattle have met all readiness criteria specified in section 29.2(b)(7). In support of this determination the CAISO hereby submits the sworn CAISO affidavit of Petar Ristanovic, Vice President of Technology, and the sworn Seattle affidavit of Emeka Anyanwu, Energy Innovation and Resources Officer. This filing certifies the readiness of the CAISO and Seattle to proceed with Seattle's participation in the CAISO's Energy Imbalance Market (EIM) on April 1, 2020, without exception, consistent with the requirement to do so at least 30 days prior.

¹ The Commission has determined that readiness certifications are considered informational filings and will not be noticed for comment. See *Cal. Indep. Sys. Operator Corp.*, 153 FERC ¶ 61,205 at P 86 and n.173 (2015); see also *Cal. Indep. Sys. Operator Corp.*, 155 FERC ¶ 61,283 at P 8 (2016).

I. Background

The EIM 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. PacifiCorp's balancing authorities were the first two balancing authorities to join the EIM beyond the CAISO balancing authority area. The CAISO's EIM tariff provisions went into effect on October 24, 2014, in time for the first trading day of November 1, 2014.² In a March 16, 2015 order,³ the Commission concluded that certain readiness safeguards are necessary prior to activating a prospective EIM entity in production.⁴ Accordingly, the Commission directed the CAISO to include provisions in its tariff to ensure the readiness of any new EIM entity. The Commission further required that the certification of market readiness include a sworn affidavit from an officer of the CAISO and an officer of the prospective EIM entity attesting that both have prepared and made ready the systems and processes for the new EIM entity to commence financially binding participation in the EIM.⁵ Following two compliance filings, the Commission accepted the CAISO's proposed readiness criteria.⁶ These criteria appear in section 29.2(b)(7) of the CAISO Tariff.

II. Readiness Reporting, Determination, and Attestations

The CAISO and Seattle ran market simulation scenarios from December 9, 2019 to January 31, 2020. Parallel (*i.e.*, financially nonbinding) operations, which began on February 1, 2020, will run through at least February 28, 2020 and, in any event, will continue to be supported and available to Seattle until April 1, 2020. During market simulation and parallel operations the CAISO and Seattle have engaged in daily discussions to track progress and confirm the status of each readiness criterion, and the CAISO has regularly reported on readiness status in market forum discussions and publicly posted a table or

² See *Cal. Indep. Sys. Operator Corp.*, 147 FERC ¶ 61,231 (2014) (June 19 Order) (conditionally accepting tariff revisions to implement Energy Imbalance Market); *Cal. Indep. Sys. Operator Corp.*, 149 FERC ¶ 61,058 (2014) (order denying requests for rehearing, granting in part and denying in part requests for clarification, and conditionally accepting tariff revisions on compliance with regard to order listed above); Commission Letter Order, 149 FERC ¶ 61,005 (Oct. 2, 2014) (order granting CAISO request to extend effective date of Energy Imbalance Market tariff revisions from September 23, 2014, to October 24, 2014, for trading day November 1, 2014).

³ *Cal. Indep. Sys. Operator Corp.*, 150 FERC ¶ 61,191 (2015) (March 16 Order).

⁴ March 16 Order at P 30.

⁵ *Id.*, n.85.

⁶ *Cal. Indep. Sys. Operator Corp.*, 153 FERC ¶ 61,205 (2015).

“dashboard,” showing progress towards meeting the readiness criteria.⁷ The process of updating the readiness dashboard through this joint effort involved representatives from both organizations, including the senior officers who have attested that the parties’ processes and systems are ready for Seattle’s participation in the EIM.

The market simulation confirmed system functionality and connectivity by identifying issues and software variances in advance of implementation that have since been resolved. In addition, market simulation permitted the CAISO and Seattle to validate performance of the systems and processes under a variety of structured scenarios. The market simulation dashboard dated January 31, 2020 demonstrated that the CAISO and Seattle were ready to enter parallel operations. Having achieved the benefits from market simulation, the CAISO and Seattle transitioned to parallel operations on February 1, 2020.

The parallel operations phase is designed to test performance of the systems and processes in a financially non-binding environment using historical data and information from production systems to the maximum extent possible. The CAISO and Seattle have engaged in parallel operations to examine capabilities at different times and conditions (morning ramp, evening ramp, low load and peak load). Doing so has permitted Seattle to understand the interaction between resource plans, base schedules, outage management, manual dispatch, and the CAISO full network model. This period has also allowed the CAISO and Seattle to identify and resolve software issues. The dashboard dated February 14, 2020 showed the progress during initial parallel operations as additional readiness criteria were met. The final dashboard, dated February 24, 2020, is included as Attachment A. The dashboard sets forth each of the readiness criteria in the tariff, the metrics by which the CAISO measures satisfaction of the criteria, and the actions or status that demonstrate Seattle’s compliance with criteria. The dashboard shows that all readiness criteria have been satisfied or will be satisfied by April 1, 2020.

Section 29(b)(6) requires that a senior officer of the CAISO and a prospective EIM entity attest (1) that the processes and systems of the prospective EIM Entity have satisfied or will have satisfied the readiness criteria set forth in section 29.2(b)(7) as of the Implementation Date; (2) to any known issues requiring resolution prior to the Implementation Date in accordance with section 29.2(b)(8); (3) to any exceptions from the established thresholds specified in the Business Practice Manuals, and that despite such exceptions the criteria were met or will be met as specified in 29.2(b)(7); and (4) that the Implementation Date is conditional on the resolution of the known issues

⁷ More information on the status of these other reports consistent with CAISO tariff section 29.2(b)(8) is available on the CAISO website under the EIM Entities Seattle entry for 2019 at: <http://www.caiso.com/informed/Pages/ReleasePlanning/Default.aspx>.

identified in the certificates and any unforeseen issues that undermine the satisfaction of the readiness criteria. Attachments B and C, respectively, contain the sworn CAISO affidavit of Petar Ristanovic, Vice President of Technology and the sworn Seattle affidavit of Emeka Anyanwu, Energy Innovation and Resources Officer, in satisfaction of this requirement.

The affidavits are based upon the engagement by these senior officers in assessing the readiness criteria as reported in the dashboard, including supporting documentation. The CAISO believes that the market simulation and parallel operations to date demonstrate that Seattle is prepared to enter financially binding production EIM operations on April 1, 2020. As discussed in the Market Quality Report included as Attachment D, any issues identified in the parallel operations have been resolved or will be resolved. Neither the CAISO nor Seattle has identified any exception to any of the readiness criteria.

III. Market Quality Report on Parallel Operations

Parallel operations allowed the CAISO and Seattle to identify and resolve numerous input, process, and software issues prior to the commencement of financially binding operations.⁸ The CAISO and Seattle worked diligently during parallel operations to identify the cause of the infeasibilities that arose. The attached Market Quality Report demonstrates that the market solution produced is as expected and consistent with the market rules as designed, recognizing that the input data may be influenced by limitations inherent in the parallel operating environment and these limitations may affect the quality of the solution.

The CAISO validated both prices and schedules based on the data input to the market systems throughout the first 14 days of parallel operations. This validation demonstrates that the market solution produced is as expected and consistent with the market rules as designed based on the input data. The analysis conducted for the report accounts for the fact that input data may be influenced by limitations inherent in the parallel operations environment and these limitations may affect the quality of the solution. When factors affecting the input data are controlled for, the numerical quality of the market solution is good and indicates that the systems and processes of Seattle are ready to operate in production.

V. Attachments

Attachment A: Readiness Dashboard Report

⁸ The market quality report on parallel operations dated February 21, 2020 explains how each of these issues impacted the market results and how they were resolved by the CAISO and Seattle.

Attachment B: Affidavit of Petar Ristonavic
Attachment C: Affidavit of Emeka Anyanwu
Attachment D: Parallel Operations Market Quality Report

VI. Conclusion

The CAISO respectfully requests that the Commission accept this certification as consistent with section 29.2(b)(6) of the CAISO tariff. The CAISO will notify the Commission in the event of any subsequent determination that the implementation of Seattle into the EIM on April 1, 2020 should be delayed, the reason for the delay, the new implementation date if it can be determined, and whether a portion or all of this certification needs to be reissued.

Respectfully submitted,

By: /s/ John C. Anders

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CERTIFICATE OF SERVICE

I hereby certify that I have served the foregoing document upon the parties listed on the official service list in the captioned proceedings, 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 Folsom, CA this 28th day of February, 2020.

Ms Martha Sedgley

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