

May 29, 2015

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

**Re: California Independent System Operator Corporation
Docket No. ER14-1386-000
Energy Imbalance Market Structural Market Power Informational
Report**

Dear Secretary Bose:

The California Independent System Operator Corporation (CAISO) hereby submits its six-month informational status report following the launch of the Energy Imbalance Market (EIM) on the presence of structural market power in PacifiCorp's balancing authority areas due to limits on transmission interties into and between these balancing authority areas under the EIM structure.¹ As noted in the Commission's June 19 Order, the Commission may use the information to determine if any action is necessary to address structural market power in PacifiCorp's balancing authority areas under the EIM structure.

Consistent with the June 19 order, on July 23, 2014, the CAISO filed to amend its tariff to apply market power mitigation provisions to EIM transfer constraints into EIM balancing authority areas. In support of the July 23 tariff amendment, the Department of Market Monitoring provided a report on structural competitiveness of PacifiCorp's balancing authority areas.

The Commission approved the CAISO's July 23 tariff amendment agreeing "with CAISO and the Department of Market Monitoring's arguments that applying real-time local market power mitigation procedures on scheduling constraints limiting transfers of energy into and between PacifiCorp's balancing authority areas would be appropriate."

¹ See *California Indep. Sys. Operator Corp.*, 147 FERC ¶ 61,231 at P 216 (2014)(June 19 Order).

The DMM report concludes that circumstances warranting market power mitigation specified in its report accompanying the July 23 tariff amendment persist and that there is no new information that warrants changing the current application of market power mitigation on the EIM transfer constraints.

Please contact the undersigned with any questions.

Respectfully submitted

By: /s/ Anna A. McKenna

Roger E. Collanton
General Counsel
Anna A. McKenna
Assistant General Counsel
John Anders
Lead Counsel
California Independent System
Operator Corporation
250 Outcropping Way
Folsom, CA 95630
Tel: (916) 608-7182
Fax: (916) 608-7222
amckenna@caiso.com



California ISO

California ISO

Report on Energy Imbalance Market Competiveness

May 29, 2015

Department of Market Monitoring

Summary

In its June 19, 2014 Order the Commission directed the CAISO to provide the Commission with informational status reports every six months for two years following the launch of the Energy Imbalance Market (EIM) on the presence of structural market power in PacifiCorp's Balancing Authority Areas (BAAs) due to limits on transmission interties into and between these BAAs under the EIM structure. The Commission indicated it would use the information in these reports to determine if any action is necessary to address structural market power in PacifiCorp's BAAs under the EIM structure.¹

Following the June 19 Order, in July 2014 the ISO filed to amend its tariff to apply market power mitigation provisions to EIM transfer constraints into EIM balancing areas. In support of this filing, the Department of Market Monitoring (DMM) provided a report on structural competitiveness of the PacifiCorp BAAs. In addition, since implementation of the EIM in November 2014, DMM has submitted five reports pursuant to the Commission's December 1, 2014 Order. These already submitted reports provide additional analysis and metrics on the performance, competitiveness, and potential market power in PacifiCorp's BAAs under the EIM design

This report updates information in these prior submitted reports relating to the structural competitiveness and performance of the EIM in the first six months following implementation in November 2014. Since the date on which DMM's report was submitted accompanying the July 2014 tariff amendment, the fundamental market conditions contributing to structural market power have not changed and the degree of potential structural market power remains high and warrants continuation of market power provisions currently in effect. While bidding has been highly competitive, DMM believes the application of price mitigation to scheduling constraints into the PacifiCorp BAAs represents an important safeguard to protect against noncompetitively high prices in the EIM.

¹ See *California Indep. Sys. Operator Corp.*, 147 FERC ¶ 61,231 at P 216 (2014).

1 Background

In its June 19, 2014 Order the Commission declined to require that real-time local market power mitigation on transfer constraints between the CAISO and EIM areas at EIM start-up, as requested by some intervenors. The Commission based its decision on two factors:

First, CAISO has not proposed, and we are not persuaded, that market power mitigation on EIM interties is warranted on EIM start-up. Second, PacifiCorp currently has market-based rate authority, which includes authorization to sell energy and ancillary services at market-based rates within its two BAAs.² Therefore, implementing real-time local market power mitigation on EIM interties for PacifiCorp's BAAs at EIM start-up could result in unnecessary mitigation.

However, to help identify any potential for exercise of market power following implementation of EIM, the Commission also took the following two steps. As explained in the June 19 Order:

First, in the order issued contemporaneously with this order in Docket No. ER14-1578-000, we are directing PacifiCorp to make a market-based rate change of status filing within nine months of the launch of the EIM so that the Commission can assess whether PacifiCorp has structural market power in its BAAs under the EIM structure. Second, in order that the Commission may monitor for the existence of market power at the interties during the pendency of PacifiCorp making a change of status filing and the Commission's review of that filing, we direct CAISO to provide the Commission with informational status reports every six months for two years following the launch of the EIM on the presence of structural market power in PacifiCorp's BAAs due to limits on transmission interties into and between these BAAs under the EIM structure. The Commission will use the information in these reports to determine if any action is necessary to address structural market power in PacifiCorp's BAAs under the EIM structure.

The Commission also stated in the June 19 Order that:

... CAISO may file with the Commission to implement real-time local market power mitigation on EIM interties if it believes, and can demonstrate, that such mitigation is warranted after the Department of Market Monitoring completes its assessment of structural market power in PacifiCorp's BAAs. In that regard, CAISO may propose additional tariff detail regarding its proposed structural market power analysis and how decisions regarding activation/deactivation of market power mitigation on EIM interties will be made. The Commission will evaluate the extent to which the rules regarding real-time local market power mitigation on EIM interties are objective and clearly set forth in the tariff and, based on that, decide whether future determinations regarding market power mitigation on EIM interties should be filed with the Commission.

² See *PacifiCorp*, Docket No. ER97-2801-030, *et al.*, (June 29, 2011) (unpublished letter order accepting updated market power analysis and notice of change in status).

Following the June 19 Order, on July 23, 2014 the CAISO filed to amend its tariff to apply market power mitigation provisions to EIM transfer constraints into EIM BAAs. In support of tariff amendment, the DMM provided a report on structural competitiveness of PacifiCorp’s BAAs.³

In an order on September 22, 2014, the Commission “[agreed] with CAISO and the Department of Market Monitoring’s arguments that applying real-time local market power mitigation procedures on scheduling constraints limiting transfers of energy into and between PacifiCorp’s balancing authority areas would be appropriate,” and approved the proposed tariff revisions.⁴

Since implementation of EIM in November 2014, DMM has submitted five reports pursuant to the Commission’s December 1, 2014 Order which provide additional analysis and metrics on the performance, competitiveness and potential market power in PacifiCorp’s BAAs under the EIM design.⁵

As directed in the Commission’s June 19 Order, this report provides information on the presence of structural market power in PacifiCorp’s BAAs due to limits on transmission interties into and between these BAAs under the EIM structure. The report incorporates information provided to the Commission subsequent to the June 19 Order in DMM’s 2014 analysis of structural market power in the PacifiCorp BAAs and the four reports submitted by DMM after EIM implementation pursuant to the Commission’s December 1, 2014 Order. As noted in the Commission’s June 19 Order, the Commission may use the information to determine if any action is necessary to address structural market power in PacifiCorp’s BAAs under the EIM structure.

³ *Assessment of Potential Market Power in Energy Imbalance Market*, ISO Department of Market Monitoring, Updated June 30, 2014. http://www.caiso.com/Documents/Jul23_2014_TariffAmendment_EnergyImbalanceMarketEnhancements_ER14-2484.pdf

⁴ See *California Indep. Sys. Operator Corp.*, 148 FERC ¶ 61,222 at P 13 (2014).

⁵ http://www.caiso.com/Documents/Dec18_2014_DMMReport_EIMPerformance_November2014_ER15-402.pdf
http://www.caiso.com/Documents/Jan23_2015_DMMAssessment_December2014EIMPerformance.pdf
http://www.caiso.com/Documents/Mar4_2015_DMMAssessment_EIMInformationalReport_Jan-Feb2015_ER15-402.pdf
http://www.caiso.com/Documents/Apr2_2015_DMM_AssessmentPerformance_EIM-Feb13-Mar16_2015_ER15-402.pdf
http://www.caiso.com/Documents/May7_2015_DMM_Report_Performance_Issues_EIM_March2015_ER15-402.pdf

2 Potential market power

As indicated in DMM’s June 2014 report on the potential structural competitiveness of the PacifiCorp BAAs, the potential degree of structural market power in the two PacifiCorp EIM balancing authority areas depends on a number of factors. Three main factors examined in DMM’s June 2014 report include the following:

- The amount and ownership of generation participating in EIM.
- Scheduling constraints between EIM balancing authority areas and the ISO.
- Net demand for imbalance energy from other load serving entities and intermittent resources.

As summarized below, since the implementation of the EIM, no additional information regarding these factors has become available that indicates that the degree of potential structural market power has lowered. Therefore, continued market power mitigation on EIM transfer constraints into the PacifiCorp BAAs currently should continue to remain in effect.

Amount and ownership of supply

DMM’s June 2014 report noted that “based on information submitted by PacifiCorp to the ISO for generating resources being registered to be eligible to participate in the EIM, there may be a substantial amount of PacifiCorp generation within the PacifiCorp BAAs relative to the potential demand of imbalance energy,” and that “about 160 MW of additional gas-fired within the PacifiCorp East BAA owned or controlled by one or more other entities may also participate in the EIM upon implementation.”⁶

At this time, PacifiCorp continues to own or control all capacity participating in the EIM.

EIM transfer constraints

As noted in DMM’s June 2014 report, competition from transfers from the ISO or other EIM BAAs can limit the incentive for any entity to exercise market power within the two PacifiCorp BAAs. However, based on analysis in that report, DMM concluded that the amount of transfer capacity available in the EIM between the ISO and the two PacifiCorp BAAs also remains uncertain at this time and may be somewhat dynamic from hour to hour.

DMM continues to find that the amount of energy that Scheduling Coordinators can schedule from the ISO to the PacifiCorp BAAs in the EIM remains uncertain and is limited during many intervals, particularly in the 5-minute market. For example:

- The scheduling limit on the amount of energy that can be scheduled into the PacifiCorp East BAA in the EIM continues to 0 MW.
- As also noted in DMM’s June 2015 report, the amount of additional energy capacity that may be scheduled into the PacifiCorp BAAs can also be limited during periods when any of the PacifiCorp

⁶ *Assessment of Potential Market Power in Energy Imbalance Market*, ISO Department of Market Monitoring, Updated June 30, 2014, p. 10.

BAAAs fail the flexible ramping sufficiency test.⁷ As shown in the most recent reports on EIM market performance submitted by DMM and the ISO, while there is a downward trend in the frequency that the ramping sufficiency test is failed, transfers into the PacifiCorp from the ISO continue to be limited by failures of this test⁸.

- DMM’s June 2015 report also noted the amount of additional energy capacity that may be scheduled into the PacifiCorp BAAs will be limited by the fact that “PacifiCorp will also be required to abide by any additional transfer limitations for dynamic transfers imposed by BPA as the path operator.”⁹ As described in DMM’s most recent report on EIM to the Commission, current dynamic transfer limits restrict the additional energy that may be transferred into the PacifiCorp BAAs from the ISO in the 5-minute market to about +11 MW during peak hours and about +110 MW during off-peak hours.¹⁰

In addition, as shown in Tables 1 and 2, since the CAISO implemented EIM, EIM transfer constraints into the PacifiCorp areas have been binding a relatively high and growing percentage of intervals in both the 15-minute and 5-minute markets.

Table 1. Frequency of congestion on EIM scheduling constraint into PacifiCorp East area

	15-minute market	5-minute market
Nov-14	22%	13%
Dec-14	18%	16%
Jan-15	17%	15%
Feb-15	55%	37%
Mar-15	56%	47%
Apr-15	55%	50%

⁷ *Assessment of Potential Market Power in Energy Imbalance Market*, ISO Department of Market Monitoring, Updated June 30, 2014, p. 9.

⁸ *Report on Energy Imbalance Market Issues and Performance*, Department of Market Monitoring, April 2, 2015, pp. 14-15. *Energy Imbalance Market Pricing Waiver Report, March 1 – March 31, 2015*, CAISO Department of Market Quality and Renewable Integration, April 24, 2015, Attachment B, pp. 63-68.

http://www.caiso.com/Documents/Apr24_2015_March2015_EnergyImbalanceMarket_PriceWaiverReport_ER15-402.pdf

⁹ *Assessment of Potential Market Power in Energy Imbalance Market*, ISO Department of Market Monitoring, Updated June 30, 2014, p. 8.

¹⁰ *Report on Energy Imbalance Market Issues and Performance*, Department of Market Monitoring April 2, 2015, pp. 31-33.

Table 2. Frequency of congestion on EIM scheduling constraint from CAISO into combined PacifiCorp West/PacifiCorp West areas

	15-minute market	5-minute market
Nov-14	4%	36%
Dec-14	8%	32%
Jan-15	4%	33%
Feb-15	8%	31%
Mar-15	8%	24%
Apr-15	8%	21%

Non-PacifiCorp demand for imbalance energy

DMM’s June 2014 report also noted that incentive to exercise structural market power in the PacifiCorp may also be limited if the net demand for imbalance energy from other load serving entities and intermittent resources is relatively small.

DMM has initiated discussions with PacifiCorp on establishing a process under which DMM may obtain access to data on deviations by non-PacifiCorp load and generation following EIM implementation from PacifiCorp’s settlement system as final settlement data become available. However, the amount of final settlement data currently available is limited and a process for sharing this with DMM has not yet been established.

Although DMM believes future assessments of potential market power in the EIM BAAs may consider data on net demand for balancing energy by non-PacifiCorp entities as sufficient data become available for such analysis, no additional data on net demand for imbalance energy from non-PacifiCorp entities is available for such analysis at this time.

3 Conclusions

Additional information on market competitiveness since implementation of EIM in the PacifiCorp BAAs summarized in this report indicates that the degree of potential structural market power remains high and warrants continuation of market power provisions currently in effect. While bidding has been highly competitive, DMM believes the application of price mitigation to EIM transfer constraints into the PacifiCorp BAAs represents an important safeguard to protect against uncompetitive high prices in the EIM.

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, California this 29th day of May, 2015.

Anna Pascuzzo

Anna Pascuzzo