153 FERC ¶ 61,206
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Norman C. Bay, Chairman;
Cheryl A. LaFleur, Tony Clark,
and Colette D. Honorable.

Nevada Power Company	Docket Nos. ER15-2281-000
Sierra Pacific Power Company	ER15-2282-001
PacifiCorp	ER15-2283-000

ORDER ON PROPOSED MARKET-BASED RATE TARIFF CHANGES

(Issued November 19, 2015)

1. In this order, we accept in part, subject to condition, and reject in part Nevada Power Company's and Sierra Pacific Power Company's (collectively, NV Energy), and PacifiCorp's (together with NV Energy, Berkshire EIM Sellers)[1] market-based rate tariff revisions that reflect their participation in the Energy Imbalance Market (EIM) administered by the California Independent System Operator Corporation (CAISO). As discussed below, we will allow the Berkshire EIM Sellers to participate in the EIM at market-based rates on the condition that: (1) the Berkshire EIM Sellers offer their units that are participating in the EIM into the EIM at or below each unit's Default Energy Bid, as defined below; and (2) the Berkshire EIM Sellers facilitate CAISO's enforcement of all internal transmission constraints in the PacifiCorp and NV Energy balancing authority areas. We accept the market-based rate tariffs, subject to condition, to become effective on the day that NV Energy begins participation in the CAISO EIM.

I. Background

A. The EIM

2. The EIM enables entities with balancing authority areas outside of CAISO to voluntarily take part in the imbalance energy portion of the CAISO locational marginal

[1] NV Energy and its affiliate PacifiCorp are each subsidiaries of Berkshire Hathaway Energy Company.

price (LMP)-based real-time electricity market alongside participants from within the CAISO balancing authority area.[2] PacifiCorp's two balancing authority areas – PacifiCorp-East and PacifiCorp-West – were the initial participants in the EIM. On June 19, 2014, the Commission issued an order addressing proposed Open Access Transmission Tariff (OATT) revisions filed by PacifiCorp in order for PacifiCorp to participate in the EIM.[3] As relevant here, the Commission directed PacifiCorp to make a change in status filing nine months after the start of the EIM to study PacifiCorp's market power in the geographic footprint consisting of CAISO, PacifiCorp-East, and PacifiCorp-West balancing authority areas (3-BAA EIM footprint).[4] The EIM was fully activated on November 1, 2014.

3. On May 14, 2015, the Commission issued an order authorizing NV Energy to join the EIM, thereby forming an expanded EIM geographic footprint, consisting of the balancing authority areas of CAISO, PacifiCorp-West, PacifiCorp-East, and NV Energy (4-BAA EIM footprint).[5] In that order, the Commission stated that NV Energy would not be allowed to participate at market-based rates in the EIM until NV Energy demonstrates that it does not have market power in the 4-BAA EIM footprint. The Commission also stated that, to the extent PacifiCorp wants to make sales in the EIM at market-based rates once NV Energy's balancing authority area becomes part of the EIM, PacifiCorp will need to submit a market power analysis to demonstrate that it does not have market power in the EIM.[6] The Commission required these studies because sales into the 4-BAA EIM could sink in the NV Energy balancing authority area, in which the Berkshire EIM Sellers do not have authority to make market-based rate sales.[7]

[2] *Cal. Indep. Sys. Operator Corp*., 147 FERC ¶ 61,231 (CAISO EIM Order), *order on reh'g, clarification and compliance*, 149 FERC ¶ 61,058 (2014).

[3] *PacifiCorp*, 147 FERC ¶ 61,227 (PacifiCorp EIM Order), *order on reh'g, clarification, and compliance*, 149 FERC ¶ 61,057 (2014), *reh'g rejected*, 150 FERC ¶ 61,084 (2015).

[4] *Id*. P 206.

[5] *Nevada Power Company*, 151 FERC ¶ 61,131 (2015) (NV Energy EIM Order).

[6] The Commission noted that this study would be separate from the study that the Commission directed PacifiCorp to provide nine months after it began participation in the EIM, which is based on the 3-BAA EIM footprint and does not include NV Energy. *Id.* n.384.

[7] *Id.* P 201.

4. On July 24, 2015, CAISO filed a petition in a separate proceeding asking for Commission authorization, pursuant to section 29.39(d)(2) of the CAISO Tariff, to include in its mitigation procedures, transfer constraints in the EIM between the NV Energy balancing authority area and the CAISO and PacifiCorp-East balancing authority areas.[8]

B. <u>Berkshire EIM Sellers Filing</u>

5. On July 27, 2015, the Berkshire EIM Sellers submitted a market power study of the planned 4-BAA EIM footprint and revisions to their market-based rate tariffs (Berkshire EIM Sellers Filing).[9] The study examines the EIM after the integration of the NV Energy balancing authority area and accounts for both PacifiCorp's and NV Energy's EIM capacity. The Berkshire EIM Sellers state that, based on their study, they do not have market power in the 4-BAA EIM. Further, they state that CAISO's market monitoring and mitigation should alleviate any concerns as to the existence of market power.

6. The Berkshire EIM Sellers' revised market-based rate tariffs contain provisions related to their expanded participation in the EIM. Specifically, each of the Berkshire EIM Sellers add language stating that: (1) its tariff's limitation on market-based rate sales in the NV Energy balancing authority area does not apply to the EIM; (2) if for any period it lacks market-based rates for sales into the EIM, its bids into the CAISO EIM will be limited to its Default Energy Bid;[10] and (3) sales into the CAISO EIM will not be deemed to be sales to an affiliate.

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[8] CAISO Petition for Market Power Mitigation Authority, Docket No. ER15-2272-000 (filed July 24, 2015) (CAISO July Mitigation Filing).

[9] Also on July 27, 2015, in response to the directive in the PacifiCorp EIM Order, PacifiCorp submitted a change in status filing that contained a study of the 3-BAA EIM footprint. That study uses the same assumptions as the study submitted in the Berkshire EIM Sellers Filing, except that it does not include the NV Energy balancing authority area and does not account for NV Energy's EIM capacity.

[10] CAISO oversees the process of setting Default Energy Bid levels. *See* CAISO Tariff, section 39.7. Under section 39.7.1, a resource owner can elect from three options to determine the Default Energy Bid: (1) Variable Cost Option; (2) LMP Option; or (3) Negotiated Rate Option.

II. Notice of Filings and Responsive Pleadings

7. Notice of the Berkshire EIM Sellers Filing was published in the *Federal Register*, 80 Fed. Reg. 45,971 (2015), with interventions and protests due on or before August 17, 2015. Timely motions to intervene were filed in all three dockets by: Powerex Corp. (Powerex), CAISO, the Modesto Irrigation District, Truckee Donner Public Utility District (Truckee Donner), Kennecott Utah Copper LLC (Kennecott), Utah Associated Municipal Power Systems, the Barrick Mines,[11] the Transmission Agency of Northern California, and the Cities of Santa Clara, California and Redding, California and the M-S-R Public Power Agency. Deseret Generation and Transmission Cooperative (Deseret Cooperative) filed a motion to intervene out of time in all three dockets. Substantive comments and protests were filed in all three dockets by Truckee Donner, Barrick Mines, Kennecott, Powerex, and CAISO. PacifiCorp filed motions to intervene in the NV Energy dockets (Docket Nos. ER15-2281-000 and ER15-2282-001) and NV Energy filed motions to intervene in the PacifiCorp docket (Docket No. ER15-2283-000). On September 1, 2015, the Berkshire EIM Sellers filed an answer to the protests and comments.

III. Discussion

A. Procedural Matters

8. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2015), the timely, unopposed motions to intervene serve to make the entities that filed them parties to the proceedings in which they were filed. Pursuant to Rule 214(d) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214(d) (2015), we grant Deseret Cooperative's late-filed motion to intervene in Docket Nos. ER15-2281-000, ER15-2282-000, and ER15-2283-0000, given its interest in the proceedings, the early stage of the proceedings, and the absence of undue prejudice or delay.

9. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2015), prohibits an answer to a protest or answer unless otherwise ordered by the decisional authority. We will accept Berkshire EIM Sellers' answer because it provides information that assisted us in our decision-making process.

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[11] The Barrick Mines consist of Barrick Goldstrike Mines, Inc., Barrick Cortez Inc., and Barrick Turquoise Ridge Inc.

B. Market Power Analysis

1. Background

10. In the NV Energy EIM Order, the Commission noted that neither NV Energy nor PacifiCorp has market-based rate authority in the NV Energy balancing authority area and stated that to make sales into the EIM at market-based rates, they must submit a market power analysis to demonstrate that they do not have market power in the EIM, which includes the NV Energy balancing authority area.[12] The Commission provided certain guidelines for completing the study, including how to define the sellers, and to take into account whether the existence of frequently binding transmission constraints could create a separate relevant geographic submarket which must also be studied.[13]

11. The Berkshire EIM Sellers submit two similar market power studies to demonstrate that they do not have market power in the EIM. The first version includes all capacity and loads in the 4-BAA EIM footprint. The second version (EIM-Eligible) includes only generation capacity that is registered to participate in the EIM and uses an approximation of CAISO's, PacifiCorp's, and NV Energy's base schedule commitments to determine the load to be served ("Net Uncommitted Capacity").[14] In the EIM-Eligible analysis, base schedule commitments were used to determine the percentage of load that would need to be served in the market for balancing energy.

2. Comments and Protests

12. CAISO takes no position on the merits of the EIM market power analysis performed by the Berkshire EIM Sellers. CAISO states that if the Berkshire EIM Sellers have market power in the NV Energy balancing authority area, CAISO anticipates that its

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[12] NV Energy EIM Order, 151 FERC ¶ 61,131 at P 201 and n.384.

[13] *Id*. n.384.

[14] To estimate how much of their loads might be subject to base schedules, the Berkshire EIM Sellers applied CAISO's day-ahead schedules as a percentage of CAISO's total load to PacifiCorp's and NV Energy's loads. The Berkshire EIM Sellers contend that this method is conservative because PacifiCorp and NV Energy will provide base schedules much closer in time to when the EIM will clear as compared to CAISO's day-ahead schedules, resulting in better information on anticipated load levels.

market power mitigation measures will effectively mitigate the exercise of such market power.[15]

13. Barrick Mines and Kennecott filed identical comments under separate cover. They note that the Commission has instituted a Federal Power Act (FPA) section 206 investigation into the Berkshire EIM Sellers' market power in the PacifiCorp-East and PacifiCorp-West balancing authority areas in Docket No. EL15-22-000 and request that the Commission take notice of that investigation and use information from that docket to inform its analysis here.[16] Barrick Mines and Kennecott also point out that, through the CAISO July Mitigation Filing, CAISO noted that it would consider PacifiCorp, Nevada Power Company, and Sierra Pacific as a single supplier under CAISO market rules.[17]

14. Truckee Donner contends that any market power analysis focused on the entire 4-BAA EIM footprint, without considering local market power when imports into the NV Energy balancing authority area are constrained, is dangerously incomplete.[18] According to Truckee Donner, NV Energy will have extreme local market power when imports into the NV Energy balancing authority area are constrained because NV Energy owns or controls all of the EIM registered generation in the NV Energy balancing authority area and notes that the generation dominance of its affiliate PacifiCorp is almost as extensive in the PacifiCorp-East balancing authority area.

15. Citing CAISO's assessment of potential structural market power within the NV Energy balancing authority area, Truckee Donner notes that there is much uncertainty about how much transmission capacity will be available for EIM transfers from California to Nevada and the dependability of transfers from CAISO to discipline EIM prices in Nevada.[19] Powerex and Truckee Donner are concerned that, during intervals in which EIM transfers into the Berkshire EIM Sellers' balancing authority

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[15] CAISO Comments at 2.

[16] Barrick Mines and Kennecott attach their comments in Docket No. EL15-22-000 for Commission consideration in the instant matter.

[17] Barrick Mines Comments at 4 (citing CAISO July Mitigation Filing, Attachment A at 6); Kennecott Comments at 3-4 (citing same).

[18] Truckee Donner Protest at 6.

[19] *Id.* at 8 (citing CAISO July Mitigation Filing, Attachment A).

areas are limited, the only resources available to serve imbalance needs will be those bid by the Berkshire EIM Sellers.[20]

3. Commission Determination

16. As noted above, the Commission required the Berkshire EIM Sellers to submit market power analyses to demonstrate that they do not have market power in the EIM. In response, the Berkshire EIM Sellers contend that they do not have market power in the EIM. As discussed below, the Berkshire EIM Sellers' market power analyses did not sufficiently follow the guidelines the Commission set forth in the NV Energy EIM Order and as a result, we are unable to rely on their analysis to find that the Berkshire EIM Sellers do not have market power in the EIM.

17. The Berkshire EIM Sellers represent in their studies that there is up to 11,811 MW[21] of transfer capacity available to supply imbalance service into the EIM from first-tier areas.[22] This number is based on potential imports and is derived by reducing the Commission's accepted simultaneous transmission import limit (SIL), which is 13,843 MW for the Winter Season, for "'internalized' transmission import limits, namely 1,600 MW from [NV Energy] to CAISO" and "432 MW from [PacifiCorp-West] to CAISO."[23] For the reasons discussed below, we believe this number overstates the transfer capability available and thus the ability of generation units located in non-EIM balancing authority areas to compete in the EIM.

18. In the NV Energy EIM Order, the Commission stated that the study should include generators located in the relevant markets that are capable of providing EIM service based on: (1) a unit's technical capability of providing the service; (2) whether the unit is registered to participate in the EIM; and (3) whether the unit has the appropriate telemetry installed such that CAISO operators can dispatch the unit.[24] Using CAISO's

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[20] Powerex Comments at 5; Truckee Donner Protest at 8-9.

[21] The 11,811 MW figure represents the potential imports in the Winter season. For the Spring, Summer, and Fall seasons the potential imports are 11,717, 8,265, and 10,668 MW, respectively.

[22] Balancing authority areas other than the four that will comprise the 4-BAA EIM footprint.

[23] *See* Berkshire EIM Sellers Filing, Solomon Aff. at n.26.

[24] NV Energy EIM Order, 151 FERC ¶ 61,131 at P 201.

SIL values, the Berkshire EIM Sellers' studies suggest that all capacity that is imported into CAISO is potentially capable of providing imbalance service. However, as an initial matter, we find this improbable. Not all of the assumed capacity is potentially available because these imports are neither located in the relevant markets, nor registered to participate in the EIM. Even if external imports were considered eligible to compete in the EIM, it is unlikely that there are enough generation units in first-tier areas with the technical capability of providing EIM service to justify the import numbers used in the Berkshire EIM Sellers' study. Thus, it is very unlikely that all of the 11,811 MW of import capacity used in the study would be physically able to provide balancing services, i.e., would meet the technical and communication requirements to participate in the EIM.[25] Berkshire EIM Sellers have provided no evidence to support a conclusion that all 11,811 MW meet these criteria.

19. Further, in the NV Energy EIM Order the Commission directed that "PacifiCorp's market power analysis should take into account whether the existence of frequently binding transmission constraints into PacifiCorp-East that limit the transfer capability into that [balancing authority area] create a separate relevant geographic submarket which must also be studied."[26] The Berkshire EIM Sellers contend that they "do not believe such a submarket analysis would be probative under a 4-BAA analysis" as the inclusion of the NV Energy balancing authority area in the EIM footprint opens PacifiCorp-East to significantly more competitive supply to meet its imbalance needs.[27] However, we are not convinced that the EIM does not include submarkets, such as PacifiCorp-East.

20. Within the 4-BAA EIM structure, CAISO has interconnections with the NV Energy and PacifiCorp-West balancing authority areas, but not with the PacifiCorp-East balancing authority area. The NV Energy balancing authority area has interconnections

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[25] *See* CAISO Tariff, section 29.6 and 29.10.

[26] NV Energy EIM Order, 151 FERC ¶ 61,131 at n.384.

[27] Berkshire EIM Sellers Filing at 9 ("while imports into [PacifiCorp-East] are currently limited to the 200 MW tie between [PacifiCorp-East and PacifiCorp-West], the addition of the [NV balancing authority area] to the EIM adds 710 MW of transfer capacity into [PacifiCorp-East] from another EIM [balancing authority area].").

with CAISO and the PacifiCorp-East balancing authority area, but not with the PacifiCorp-West balancing authority area. [28]

21. This means that the only way for EIM supply located in CAISO to reach the NV Energy balancing authority area (and by extension the PacifiCorp-East balancing authority area) is through CAISO's interconnections with the NV Energy balancing authority area. However, as noted by Powerex, a report by CAISO's Department of Market Monitoring found that while approximately 1,500 MW of supply from CAISO "may be available for scheduling into the NV Energy balancing authority area during many hours, the supply of EIM transfers from the CAISO may be limited or even not exist under some circumstances."[29]

22. This is problematic because all of the EIM-participating generation in the NV Energy and PacifiCorp-East balancing authority areas is owned by the Berkshire EIM Sellers.[30] Therefore, when the interconnections between CAISO and the NV Energy balancing authority area are constrained, customers in the NV Energy and PacifiCorp-East balancing authority areas must take service from a Berkshire EIM Seller for imbalance energy.

23. Although none of the parties present evidence in this proceeding to demonstrate how often the interties between the CAISO and NV Energy balancing authority areas are constrained, or how often the interties between the PacifiCorp-West and PacifiCorp-East balancing authority areas are constrained, the existence of such constraints causes us to question whether submarkets exist in the NV Energy and PacifiCorp-East balancing

[28] The PacifiCorp-East balancing authority area is also interconnected to the PacifiCorp-West balancing authority area; however, currently energy can only be scheduled to flow from East to West. *See id.*, Solomon Aff. at 5 ("the [Nevada Energy balancing authority area] is interconnected to both CAISO and [PacifiCorp-East"]) and 9 ("Prior to NV Energy's participation in EIM, [PacifiCorp-East] is interconnected to the EIM only via a 200 MW transfer capability to [PacifiCorp-West].").

[29] Powerex Comments at 4 (quoting CAISO July Mitigation Filing, Attachment A at 1).

[30] As noted by Powerex, a report by CAISO's Department of Market Monitoring found that NV Energy owns or controls all generation resources located in the NV Energy balancing authority area that are registered to participate in the EIM. Additionally, Truckee Donner notes that PacifiCorp owns most of the generation resources located in the PacifiCorp-East balancing authority area that are registered to participate in the EIM. *See id.* at 5; Truckee Donner Protest at 7.

authority areas. However, since our conditional grant of market-based rate authorization is not based on acceptance of the assumptions used in Berkshire EIM Sellers' market power studies, including the assumed lack of submarkets, we will not opine further on this issue.

24. For the above-stated reasons, we find that the Berkshire EIM Sellers' market power screens are deficient and that the indicative market power screens fail to demonstrate a lack of market power in the EIM. The Commission allows sales at market-based rates if the seller and its affiliates do not have, or have adequately mitigated, horizontal and vertical market power.[31] Given our finding that the Berkshire EIM Sellers have failed to demonstrate a lack of horizontal market power in the EIM, our inquiry looks to whether any such market power is adequately mitigated.

25. In response to the comments submitted by Barrick Mines and Kennecott, we note that the Commission is cognizant of the pending FPA section 206 investigation into the Berkshire EIM Sellers' and their affiliates' market-based rate authorization in the PacifiCorp-East, PacifiCorp-West, Idaho Power Company, and NorthWestern Corporation balancing authority areas.[32] However, as noted in the order instituting the FPA section 206 investigation in that proceeding, the Commission has previously concluded that the CAISO EIM will be a new relevant geographic market for market power purposes.[33]

C. Monitoring and Mitigation in the CAISO EIM

1. Background

26. In Order No. 697-A, the Commission adopted a rebuttable presumption that existing Commission-approved RTO/ISO market monitoring and mitigation is sufficient

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[31] *See Market-Based Rates for Wholesale Sales of Electric Energy, Capacity and Ancillary Services by Public Utilities*, Order No. 697, FERC Stats. & Regs. ¶ 31,252 at PP 62, 299, 408, 440, *clarified*, 121 FERC ¶ 61,260 (2007), *order on reh'g*, Order No. 697-A, FERC Stats. & Regs. ¶ 31,268, *clarified*, 124 FERC ¶ 61,055, *order on reh'g*, Order No. 697-B, FERC Stats. & Regs. ¶ 31,285 (2008), *order on reh'g*, Order No. 697-C, FERC Stats. & Regs. ¶ 31,291 (2009), *order on reh'g*, Order No. 697-D, FERC Stats. & Regs. ¶ 31,305 (2010), *aff'd sub nom. Mont. Consumer Counsel v. FERC*, 659 F.3d 910 (9th Cir. 2011), *cert. denied*, 133 S. Ct. 26 (2012).

[32] *Nevada Power Co.*, 149 FERC ¶ 61,219 (2014).

[33] *Id.* P 14, n.20.

to address any market power concerns.[34] The Commission has found CAISO's real-time local market power mitigation process to be just and reasonable for sales in the day-ahead and real-time energy markets,[35] and accepted the use of these procedures in the EIM.[36]

27. In an order being issued concurrently in Docket No. ER15-2272-000, the Commission is granting CAISO's request in the CAISO July Mitigation Filing for authorization to include EIM transfer constraints on EIM interties between the NV Energy balancing authority area and the CAISO and PacifiCorp-East balancing authority area in CAISO's local market power mitigation procedures.[37] CAISO states that it anticipates that its mitigation measures will effectively mitigate the exercise of market power in the EIM.[38]

28. Additionally, as directed by the Commission, CAISO submits informational reports on the presence of structural market power in the PacifiCorp-East and PacifiCorp-West balancing authority areas every six months, and is required to continue filing these reports until November 1, 2016.[39] The Commission stated in the NV Energy EIM Order that it expects that "similar analysis will be included in these information reports [for the NV Energy balancing authority area] after NV Energy joins the EIM."[40]

2. Protests and Comments

29. CAISO explains that under its mitigation procedures, it determines in advance of real-time whether supply available to relieve projected transmission constraints is competitive or non-competitive, and the bids of resources available to relieve congestion on a non-competitive constraint are subject to mitigation, based on the higher of the market clearing price or the resource's Default Energy Bid. In addition, CAISO states that its Department of Market Monitoring can include transfer constraints into an EIM

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[34] Order No. 697-A, FERC Stats. & Regs. ¶ 31,268 at P 111.

[35] *See Cal. Indep. Sys. Operator Corp.*, 116 FERC ¶ 61,274 (2006).

[36] *See* CAISO EIM Order, 147 FERC ¶ 61,231.

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

[38] CAISO Comments at 2.

[39] CAISO EIM Order, 147 FERC ¶ 61,231 at PP 216, 219.

[40] NV Energy EIM Order, 151 FERC ¶ 61,131 at P 203.

entity's balancing authority area on an intertie in the local market power mitigation determination. CAISO notes that on July 24, 2015, it requested Commission authorization to apply its local market power mitigation procedures to EIM transfers from the PacifiCorp-East and CAISO balancing authority areas into the NV Energy balancing authority area.[41]

30. Powerex asserts that the implementation of the EIM effectively eliminates the ability of transmission customers to self-supply imbalance energy, leaving them with little ability to mitigate their exposure to EIM prices.[42] Powerex explains that under the EIM construct, any schedules submitted or adjusted by a transmission customer after the deadline for the submission of forecast data to NV Energy will be treated as an imbalance. Thus, according to Powerex, any transmission customer that attempts to use its existing OATT rights to self-supply imbalances or revise its schedule to reflect updated operating and forecast data that becomes available closer to the operating hour will be assessed imbalance charges through the EIM, even if the customer submits balanced final schedules.[43]

31. Truckee Donner argues that CAISO's local market power mitigation provisions are insufficient to curb market power in the EIM. It states that CAISO mitigates bids of resources within the same balancing authority area in which a constraint is located and not the bids of resources that could be imported into the balancing authority. Therefore, Truckee Donner is concerned that CAISO will not apply local market power mitigation procedures to resources in PacifiCorp-East when congestion occurs on ties between California and Nevada. Truckee Donner argues that this would leave NV Energy's affiliate, PacifiCorp, with "an unmitigated incentive and opportunity to exercise market power in the [NV Energy balancing authority area]."[44]

32. Next, Truckee Donner states that because mitigation only applies when congestion is identified in a 15-minute run, market power is not mitigated when congestion arises nearer to real-time. Truckee Donner cites a report from CAISO's Department of Market Monitoring that stated that about 21 percent of congestion was not predicted in the mitigation run, but this only led to "under-mitigation" occurring in about 4 percent of

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[41] CAISO Comments at 3 (citing CAISO July Mitigation Filing).

[42] Powerex Comments at 5-6.

[43] *Id.* at 5, n.19.

[44] Truckee Donner Protest at 11.

congested constraint intervals in the CAISO market.[45] Truckee Donner estimates that the under-mitigation rate in the NV Energy portion of the EIM may be much closer to 20 percent than 4 percent because, it argues, supply on the NV Energy side of the constraint is never competitive when congestion limits imports from California.[46]

33. Truckee Donner also argues that the mitigation provisions and Default Energy Bids do not prevent the exercise of market power through physical withholding. According to Truckee Donner, when imports are constrained, NV Energy can physically withhold resources so that an expensive unit sets the market clearing price, which will increase the profit of its other, cheaper generation units, to the detriment of transmission customers. Therefore, Truckee Donner requests that the Commission clarify that CAISO prohibitions on physical withholding apply to participation in the EIM and condition its grant of EIM market-based rate authority on the Berkshire EIM Sellers' willingness to accept a must-offer obligation.[47] Truckee Donner is also concerned that NV Energy has registered only about 62 percent of its total resource capacity to participate in the EIM.[48] Accordingly, Truckee Donner requests that the Commission require NV Energy to identify which resources have been committed to EIM and to demonstrate that it has adequate non-market-power reasons for not committing its other resources.

34. Truckee Donner also requests that the Commission condition the Berkshire EIM Sellers' market-based rate authority for EIM sales in the NV Energy balancing authority area on two supplemental bidding restrictions: (1) NV Energy and PacifiCorp should agree that both companies' resources in the two balancing authority areas will be subject to mitigation when the ties from California into the Nevada balancing authority area are congested and (2) when bids are mitigated in the NV Energy EIM area, they should be based on the resource's incremental cost without the 10 percent adder.[49] Powerex likewise urges the Commission to condition any decision to allow the Berkshire EIM Sellers to make EIM sales at market-based rates on the implementation of mitigation measures tailored to the specific facts and circumstances of the EIM. Specifically,

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[45] *Id.* at 12 (citing CAISO, Dep't of Mkt. Monitoring, *2014 Annual Report on Market Issues & Performance* at 126-131(June 2015), *available at* http://www.caiso.com/Documents/2014AnnualReport_MarketIssues_Performance.pdf).

[46] *Id.*

[47] *Id.* at 16, 19-20.

[48] *Id.* at 16-17 (citing CAISO July Mitigation Filing, Attachment A at 5, tbl 1).

[49] *Id.* at 20-21.

Powerex suggests that when constraints limit EIM transfers from CAISO to the NV Energy balancing authority area, the Commission could require the Berkshire EIM Sellers to settle imbalances with their customers at index-based rates traditionally used to price imbalances under Schedules 4 and 9 of their OATTs.[50]

35. Truckee Donner asserts that it is impossible to conclude from experience to date with PacifiCorp's EIM integration that the existing mitigation is sufficient to counteract structural market power. Truckee Donner notes that "serious price excursions" occurred in the EIM after PacifiCorp joined and that those excursions would have continued had the Commission not granted CAISO's request to waive certain EIM pricing provisions while also opening an FPA section 206 investigation.[51] Truckee Donner argues, in light of the pricing waiver and the pending FPA section 206 investigation, PacifiCorp is unlikely to exercise market power at this particular time, but for reasons that are unrelated to the adequacy of CAISO's EIM bid-mitigation.[52] Truckee Donner adds that "CAISO's experiences in the 1990s and 2000s illustrate starkly the danger of overlooking market flaws because unrelated market conditions mask them."[53]

36. Finally, Truckee Donner objects to the Berkshire EIM Sellers' tariff proposal that, even in the absence of market-based rate authority, the Berkshire EIM Sellers be permitted to offer their units at the Default Energy Bid and paid in accordance with the CAISO Tariff. Truckee Donner argues that the proposal is contrary to, and a belated request for rehearing of, the Commission's NV Energy EIM Order, where the Commission explicitly held that "NV Energy may not make EIM sales at market-based rates until it receives approval from the Commission."[54] Truckee Donner also argues that the proposal is inherently unreasonable because if the Berkshire EIM Sellers lack market-based rate authority for sales into the CAISO EIM, it is likely because CAISO's market monitoring and mitigation have not been shown to be sufficient to mitigate NV Energy's market power. Therefore, allowing the Berkshire EIM Sellers to receive market prices so long as resources are offered in accordance with the mitigation regime will not ensure just and reasonable rates.

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[50] Powerex Comments at 6.

[51] Truckee Donner Protest at 18 (citing *Cal. Indep. Sys. Operator Corp.*, 150 FERC ¶ 61,191 (2015)).

[52] *Id.* at 18-19.

[53] *Id.* at 19.

[54] *Id.* at 22 (citing NV Energy EIM Order, 151 FERC ¶ 61,131 at P 201).

3. Answer

37. The Berkshire EIM Sellers argue that all comments relating to the EIM market design are collateral attacks on Commission's prior determinations and are beyond the scope of the instant proceeding. Further, the Berkshire EIM Sellers dispute arguments regarding the effectiveness of CAISO's mitigation.

38. According to the Berkshire EIM Sellers, Truckee Donner overstates the risk that CAISO's market mitigation measures may be insufficient. First, the Berkshire EIM Sellers assert that the interties between CAISO and the NV Energy balancing authority area are large, high capacity ties, with no apparent history of significant congestion in the CAISO to NV Energy direction. Second, according to the Berkshire EIM Sellers, it is unlikely that the interties between CAISO and the NV Energy balancing authority area would be constrained and that such congestion would not be identified by the CAISO in time for mitigation to be triggered.[55] The Berkshire EIM Sellers explain that because resources submit their bids in the EIM 40 minutes before the applicable interval, there is almost no chance a resource could know that congestion was occurring, but mitigation was not triggered, such that the resource could alter its bid to take advantage of such a situation.[56]

39. The Berkshire EIM Sellers also take issue with Truckee Donner's suggestion that CAISO's market power mitigation should be accompanied by a must-offer requirement. The Berkshire EIM Sellers argue that such a requirement would be "a dramatic rewrite of the EIM design that is not warranted based only on speculative concerns about withholding."[57] The Berkshire EIM Sellers state that they have no incentive to engage in physical withholding because they have significant amounts of load that will pay EIM charges, adding that all of their off-system sales revenues are credited to retail ratepayers or reduce net power costs, which benefits retail ratepayers.

40. As to the suggestion that the Berkshire EIM Sellers could engage in withholding by under-registering their generating fleets, the Berkshire EIM Sellers maintain that their unregistered renewable resources are not suited to provide imbalance energy and that their unregistered coal capacity will be available for economic regulation and reserves,

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[55] Berkshire EIM Sellers Answer at 5.

[56] *Id.* at 5-6.

[57] *Id.* at 7.

which will allow for more of the participating resource MW to be available to the imbalance market as appropriate.[58]

41. The Berkshire EIM Sellers maintain that the calculation of the Default Energy Bid, including the 10 percent adder, has been upheld by the Commission and is outside the scope of this proceeding.[59] In any event, the Berkshire EIM Sellers argue that the 10 percent adder is an approximation of hard-to-quantify costs and is not a "premium," as Truckee Donner suggests.

42. The Berkshire EIM Sellers argue that the price excursions in the EIM occurred due to structural market design issues and were not the result of anti-competitive bidding on PacifiCorp's part. The Berkshire EIM Sellers object to using market index pricing for imbalances when mitigation is triggered. They state that the use of the Default Energy Bid within the EIM dispatch ensures that the cost to meet the imbalance is based on actual dispatch of participating units rather than a remote index.[60]

43. Finally, the Berkshire EIM Sellers defend their inclusion of tariff provisions allowing for participation in the EIM without market-based rate authority based on the requirement that they bid the Default Energy Bid. They argue that if there is an insufficient basis to provide market-based rate authority, the Berkshire EIM Sellers' bids would be mitigated so that a unit could not set a market-clearing price above its Default Energy Bid.

4. Commission Determination

44. Commenters raise several issues with respect to the adequacy of CAISO's local market power mitigation. In response to Truckee Donner's concern that CAISO will not apply its local market power mitigation procedures to EIM transfer constraints from the NV Energy balancing authority area to the PacifiCorp-East balancing authority area, when congestion occurs on ties between California and Nevada, we note that in the concurrently issued order in Docket No. ER15-2272-000, the Commission authorizes CAISO to apply its mitigation procedures to the EIM transfers from the PacifiCorp-East and CAISO balancing authority areas into the NV Energy balancing authority area, as well as from the NV Energy balancing authority area into the PacifiCorp-East balancing

[58] *Id.* at 9.

[59] *Id.* at 10 (citing *Cal. Indep. Sys. Operator Corp.*, 116 FERC ¶ 61, 274, at P 1045 (2006); *Cal. Indep. Sys. Operator Corp.* 147 FERC 61,231, at PP 217, 224 (2014)).

[60] *Id.* at 11.

authority area.[61] CAISO has also committed to amend its business practice manual to address this situation.

45. Truckee Donner also points to the Commission's FPA section 206 proceeding in Docket No. EL15-53-000 to claim the existing mitigation is insufficient to counteract structural market power. We note that that proceeding is ongoing and find that Truckee Donner's concerns are beyond the scope of this proceeding.

46. Powerex's comment regarding transmission customers' effective inability to self-supply imbalance energy in the EIM is also beyond the scope of this proceeding. This proceeding addresses the Berkshire EIM Sellers' market-based rate authority, and not the implementation of the EIM.

47. Truckee Donner proposes that the Berkshire EIM Sellers should be subject to a must-offer requirement. As discussed below, we acknowledge that there is a possibility that the Berkshire EIM Sellers could engage in withholding, but we note that the EIM was developed and approved as a voluntary market. While registration of all of the Berkshire EIM Sellers' generation fleets would alleviate some of the market power concerns, we agree with the Berkshire EIM Sellers that this would be a major departure from the EIM design. Further, as discussed below, our grant of market-based authorization for the Berkshire EIM Sellers to participate in the EIM is conditioned on the Berkshire EIM Sellers amending their market-based rate tariffs to specify that they must bid the units participating in the EIM at or below each unit's Default Energy Bid. Such a condition should reduce the likely adverse effects on the market should withholding occur. Similarly, while we recognize Truckee Donner's concerns about under-mitigation in the NV Energy portion of the EIM, we believe this concern is alleviated by this condition.

48. With regard to protestors' concern that CAISO's local market power mitigation is not sufficient to mitigate Berkshire EIM Sellers' potential market power in the EIM, we note that CAISO's local market power mitigation works by mitigating bids where transmission constraints inhibit competition. In these instances, CAISO mitigates bids to the higher of the individual unit's Default Energy Bid or the competitive LMP at the resource's location.[62] We have two concerns with the effectiveness of CAISO's local market power mitigation as applied to the Berkshire EIM Sellers. First, outside of the CAISO's balancing authority area, the EIM is a voluntary market, which allows participants to decide which resources they bid into the EIM and which resources they do

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

[62] *See* CAISO Tariff, section 31.2.3.

not. Therefore, a market participant may be able to strategically bid its resources such that the LMP does not reflect the economic unit, but rather reflects a unit the market participant selects to bid with potentially higher cost, to the benefit of its lower cost units. The same concern is not present for resources with must-offer requirements, such as the resources that participate inside of the CAISO balancing authority area.

49. The potential for withholding becomes more troubling when an area consists primarily of a single seller, such as in the PacifiCorp-East and NV Energy balancing authority areas. If sufficient suppliers were available to compete in those areas of the EIM, or if sufficient transmission capacity allowed significant imports from other balancing authority areas into the PacifiCorp-East and NV Energy balancing authority areas on a consistent basis, the ability of a generator, even in a voluntary market, to withhold capacity and drive up prices is less than in an area dominated primarily by a single supplier and limited transmission imports where withholding capacity may be a more successful strategy.

50. Second, CAISO’s ability to effectively conduct local market power mitigation in the EIM is premised on it having the necessary transmission data, including any transmission limits and constraints, and including those transmission constraints in its local market power mitigation procedures. For example, when transmission constraints arise within CAISO’s footprint in California, CAISO is able to enforce those constraints in its market models consistent with its tariff and no entity can restrict CAISO’s ability to mitigate local market power by preventing the enforcement of such constraints. However, if transmission constraints are not able to be enforced in the PacifiCorp and/or NV Energy portions of the EIM, this would undermine the effectiveness of CAISO’s local market power mitigation procedure in the EIM and CAISO’s ability to effectively mitigate any exercise of market power in that market. In light of our concerns regarding the ability of CAISO local market power mitigation to mitigate the Berkshire EIM Sellers’ market power in the EIM, we will condition the Berkshire’s EIM Sellers’ participation in the EIM at market-based rates on the two conditions discussed below.

D. <u>Conditional Market-Based Rate Authorization</u>

51. Consistent with the discussion above, we find that: (1) the Berkshire EIM Sellers have not demonstrated that they lack market power in the EIM; and (2) CAISO’s market monitoring and mitigation is not sufficient to mitigate the Berkshire EIM Sellers’ potential market power in the EIM. Accordingly, we will accept the Berkshire EIM

Sellers' market-based rate tariff subject to condition, as discussed below.[63] Specifically, we authorize the Berkshire EIM Sellers to participate in the EIM at market-based rates based on the following two mitigation measures. First, we will require that the Berkshire EIM Sellers offer their units that are participating in the EIM into the EIM at or below each unit's Default Energy Bid. Second, we will require that the Berkshire EIM Sellers facilitate CAISO's enforcement of transmission constraints in PacifiCorp's and NV Energy's balancing authority areas, as defined below.

52. As discussed above, the Commission has previously found that the EIM will be a new relevant geographic market for market power purposes.[64] Therefore, we remind the Berkshire EIM Sellers, and other EIM participants that are Category 2 sellers in one or more of the balancing authority areas that make up the EIM, that they should study the EIM when submitting their updated market power analyses in accordance with the schedule in Order No. 697.[65] However, we will not require any sellers to begin studying the EIM as part of their updated market power analyses until December 2018.

1. <u>Default Energy Bids</u>

53. The condition that the Berkshire EIM Sellers bid their participating units into the EIM at or below each unit's Default Energy Bid will provide market power mitigation by ensuring the Berkshire EIM Sellers are unable to set the LMP above their most expensive unit's Default Energy Bid. Without this protection, if a congestion event occurs and the mitigation is not triggered because CAISO's market power mitigation failed to predict the congestion, any of the Berkshire EIM Sellers' bids above their marginal cost could set the LMP. While this condition does not directly address the ability to withhold, it does reduce the likely adverse effect on the market should withholding occur.

54. In implementing the Default Energy Bid option, the Berkshire EIM Sellers may use the Variable Cost or Negotiated Rate Options. As explained above, Default Energy Bids are calculated by CAISO pursuant to one of three methodologies: (1) the Variable Cost Option; (2) the LMP Option; and (3) the Negotiated Rate Option. The LMP Option is not necessarily reflective of costs and while its use is appropriate in local market power

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[63] The Commission can revise a proposal filed under section 205 of the FPA as long as the filing utility accepts the change. *See City of Winnfield v. FERC*, 744 F.2d 871, 875-77 (D.C. Cir. 1984). The filing utility is free to indicate that it is unwilling to accede to the Commission's conditions by withdrawing its filing.

[64] *Nevada Power Co.*, 149 FERC ¶ 61,219 at P 14, n.20.

[65] Order No. 697, FERC Stats. & Regs. ¶ 31,252 at P 833.

mitigation procedure in CAISO, its use is not appropriate where there is potentially structural market power across an entire balancing authority area. Therefore, as a condition of market-based rate authority, the Berkshire EIM Sellers may not use the LMP Option.

55. We reject Truckee Donner's argument that the Berkshire EIM Sellers should not receive the 10 percent adder as part of their Default Energy Bid.[66] The Commission has approved the 10 percent adder as an approximation of hard-to-quantify costs.[67] In addition, it is already provided for by the CAISO Tariff and is appropriately included in the Default Energy Bid calculation. Additionally, we find that the use of the Default Energy Bid is consistent with market mechanisms that already exist in the EIM and is therefore preferable to using market index pricing under the current OATT, as Powerex suggests.

56. Accordingly, as a condition of approving the Berkshire EIM Sellers' participation in EIM at market-based rates, we will require that the Berkshire EIM Sellers submit a compliance filing within 30 days from issuance of this order proposing revised language for their market-based rate tariffs that reflects this condition, i.e., that their EIM bids will be limited at all times to the Default Energy Bid calculated in accordance with the Variable Cost or Negotiated Rate Options provided in the CAISO Tariff.

2. <u>Enforcement of Transmission Constraints</u>

57. The Commission approved the EIM with the understanding that CAISO will implement its local market power mitigation in the EIM.[68] The CAISO Tariff provides that local market power mitigation is based on the assessment and designation of transmission constraints.[69] Therefore, in approving the EIM, the Commission intended

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[66] We assume that this is referring to the 10 percent adder that is included in the calculation of the Default Energy Bid as part of the Variable Cost Option. *See* CAISO Tariff, section 39.7.1.1.

[67] *Cal. Indep. Sys. Operator Corp*., 116 FERC ¶ 61,274, at P 1045 (2006) (approving proposed calculation to set a resource's Default Energy Bid at the variable cost plus 10 percent).

[68] *See* CAISO Tariff, section 29.39(a)("The CAISO shall apply the Real-Time Local Market Power Mitigation procedure in Section 39.7 to the Energy Imbalance Market").

[69] CAISO Tariff, section 39.7.

that the implementation of local market power mitigation encompass the enforcement by CAISO of transmission constraints that are internal to the PacifiCorp or NV Energy balancing authority areas.[70] Such intent is evident in the NV Energy EIM Order, where the Commission stated, "we expect that CAISO will enforce all EIM transmission constraints in NV Energy's [balancing authority area] on day one of NV Energy joining the EIM."[71]

58. To ensure that the EIM operates as intended by the Commission, as discussed above, we also will condition the Berkshire EIM Sellers' participation in the EIM at market-based rates on the requirement that the Berkshire EIM Sellers facilitate CAISO's enforcement of all internal transmission constraints in the PacifiCorp and NV Energy balancing authority areas. We note that PacifiCorp should already be providing CAISO with information regarding PacifiCorp's transmission system, and we expect that NV Energy will provide the same information for NV Energy's transmission system, as required by CAISO's tariff.[72] However, if the Berkshire EIM Sellers do not agree to facilitate CAISO's enforcement of internal transmission constraints, they may not participate in the EIM at market-based rates.

59. If the enforcement of internal transmission constraints presents reliability or other operational concerns, we expect CAISO, PacifiCorp, and NV Energy to inform the Commission of the problems, any solutions, and implications for the EIM.

60. In considering both the Default Energy Bid requirement and the enforcement of transmission constraints, we note the former limits the Berkshire EIM Sellers' bids into the EIM to each unit's Default Energy Bid and while the latter may have the same effect on the Berkshire EIM Sellers when mitigation is triggered, it would also allow mitigation to apply to other sellers in the PacifiCorp and NV Energy balancing authority areas when necessary. Additionally, the enforcement of transmission constraints and their use in market power mitigation are meant to be a long-term or permanent feature in the EIM (since such enforcement is an ongoing and important tool that is needed by CAISO to perform its mitigation function as the market operator), whereas the required use of

[70] As used here, enforcing internal transmission constraints means that PacifiCorp and NV Energy would allow CAISO to include transmission limitations for lines within the PacifiCorp and NV Energy balancing authority areas in the EIM model. This would enable CAISO to take those internal line limits into account for market and dispatch decisions, congestion management, and market power mitigation.

[71] NV Energy EIM Order, 151 FERC ¶ 61,131 at P 203.

[72] CAISO Tariff, section 29.4(b)(3).

Default Energy Bids only needs to remain in place until the Berkshire EIM Sellers demonstrate that they do not have market power in the 4-BAA EIM footprint.

E. <u>Other Tariff Issues</u>

61. The Berkshire EIM Sellers propose to add a sentence to section 8 of NV Energy's market-based rate tariffs and section 9 of PacifiCorp's market-based rate tariff ("Compliance with Commission Regulations") stating: "Sales into the CAISO Energy Imbalance Market will not be deemed to be sales to an affiliate for purposes of this section." This language effectively waives the requirement that a seller make an *Edgar*[73] demonstration regarding affiliate abuse concerns as required by 18 C.F.R § 35.39 of the Commission's regulations. In explaining the proposed tariff change, the Berkshire EIM Sellers claim that, given that the Berkshire EIM Sellers are the only non-CAISO EIM participants, one affiliate's generation may be dispatched by the CAISO to serve imbalance in the balancing authority area of the other affiliate. The Berkshire EIM Sellers state that such a transaction would not be bilateral, and would be dictated solely by CAISO dispatch.

62. The *Edgar* demonstration requires evidence that the traditional franchised public utility has not provided an undue preference (i.e., agreed to sell power at a price below-market or to purchase power at a price above-market) to its market-regulated power sales affiliate. We agree that sales within the EIM do not present an affiliate concern that would require an *Edgar* showing because the Berkshire EIM Sellers are bidding into a centralized market, which has been found to be independent.[74] Therefore, we reject the Berkshire EIM Sellers' proposed additional tariff language as unnecessary and direct that it be removed from their respective tariffs.

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[73] *See Boston Edison Co. Re: Edgar Electric Energy Co.*, 55 FERC ¶ 61,382 (1991) (requiring a demonstration that a buyer has chosen the lowest cost supplier and thus has not unduly preferred an affiliate).

[74] *Brownsville Power I, L.L.C.*, 111 FERC ¶ 61,398, at P 10 (2005) ("Tying the price of an affiliate transaction to an established, relevant market price adequately mitigates any affiliate abuse concerns"); *Union Light, Heat, and Power Co.*, 110 FERC ¶ 61,212, at P 16 (2005) (affirming that use of Midwest ISO Day 2 market prices meets the *Edgar* test and mitigates concerns regarding transactions between affiliates).

The Commission orders:

(A) The Berkshire EIM Sellers' proposed tariff revisions are hereby accepted in part, subject to condition, and rejected in part, to become effective on the day that NV Energy begins participation in the CAISO EIM, subject to further modifications, as discussed in the body of this order.

(B) The Berkshire EIM Sellers are hereby authorized to participate in the EIM at market-based rates on the condition that: (1) the Berkshire EIM Sellers offer their units that are participating in the EIM into the EIM at or below each unit's Default Energy Bid, as discussed in the body of this order; and (2) the Berkshire EIM Sellers facilitate CAISO's enforcement of internal transmission constraints in the PacifiCorp and NV Energy balancing authority areas, as discussed in the body of this order.

(C) The Berkshire EIM Sellers are hereby directed to submit a compliance filing within 30 days with revised tariff language, as discussed in the body of this order.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.