

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

**California Independent System            )            Docket No. ER15-1451-000  
Operator Corporation                        )**

**ANSWER OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR TO  
COMMENT AND PROTEST ON THE APRIL 3 WAIVER REQUEST**

The California Independent System Operator Corporation (CAISO) respectfully submits this answer to comments and protests regarding the CAISO’s proposed tariff waiver to delay for up to one year the reinstatement of intertie virtual bidding.<sup>1</sup> The comments and protests do not present a sound basis for the Commission to deny the CAISO’s requested waiver. Indeed, only one party, Western Power Trading Forum (WPTF), disputes the need to delay the reinstatement of intertie virtual bidding. As explained below, WPTF’s arguments for denying the proposed waiver rest on a mischaracterization of the analysis prepared by the CAISO’s Department of Market Monitoring (DMM). Nevertheless, the CAISO agrees that it would be helpful for the Commission to convene a technical conference to explore the liquidity issues the CAISO identified in its April 3 filing, which led the CAISO to request a tariff waiver.

**I. BACKGROUND**

On April 3, 2015, the CAISO requested a waiver for up to a 12-month period, effective May 1, 2015, of provisions in sections 30.9, 30.7.3.6.3, and 30.7.3.6.3.2 of the CAISO tariff that otherwise would require the CAISO to reinstate convergence bidding at the interties on May 1, 2015. The basis of the CAISO request was the concern that

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<sup>1</sup> The CAISO files this answer pursuant to Rule 213 of the Commission’s Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2). Capitalized terms not otherwise defined herein have the meanings set forth in the CAISO tariff.

reintroducing intertie virtual bidding in light of the observed lack of liquidity in economic bidding in the CAISO's fifteen-minute market would decrease economic efficiency. The CAISO included with its waiver request a supplemental report from DMM analyzing the connection between fifteen-minute market economic bids at the interties and intertie virtual bidding.<sup>2</sup>

The CAISO explained that during the period of the waiver it would explore the causes underlying the lack of liquidity at the interties in the fifteen-minute market and seek stakeholder input as to whether there are feasible solutions to the liquidity issues and identify what level of liquidity is sufficient, from a market efficiency perspective, to reinstitute intertie virtual bidding. The CAISO further outlined that the waiver period would provide the CAISO with sufficient time to make any necessary tariff filings if it determined, in consultation with stakeholders, that it is appropriate to adopt additional or alternative criteria relating to intertie virtual bidding.

The CAISO requested a seven-day comment period and a Commission order by April 28, 2015. On April 6, the Commission noticed the filing and set a comment date of April 13 (*i.e.*, a ten-day comment period). The following day, April 7, Powerex Corp. intervened and requested that the Commission offer parties the standard 21-day comment period. On April 8, WPTF intervened and similarly requested a 21-day comment deadline. The Commission did not alter the April 13 comment deadline.

By the April 13 comment deadline, a total of ten parties sought to intervene in the proceeding. Of those parties, five supported the CAISO's requested delay<sup>3</sup> and an

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<sup>2</sup> On April 3 the CAISO also filed the Supplemental DMM Report in Commission Docket No. ER14-480.

<sup>3</sup> The Northern California Power Agency (NCPA); the Cities of Anaheim, Azusa, Banning, Colton,

additional two parties intervened without comment.<sup>4</sup> Of the three remaining parties, one party, SESCO CALISCO LLC, mirrors the earlier requests of Powerex and WPTF to provide an extended comment period. Another party, Powerex, supports a more limited delay of intertie virtual bidding but challenges the CAISO's rationale for the delay. Finally, WPTF broadly protests the CAISO waiver request based on what it views as weaknesses in the Supplemental DMM Report and WPTF also questions the CAISO's overall motivations in making the request.

## **II. ANSWER**

None of the comments and protests provide a sound basis for denying the CAISO's requested waiver. No party has provided sufficient evidence that it is prudent to resume intertie convergence bidding on May 1. The CAISO has provided sufficient evidence to demonstrate that it would be imprudent to proceed at this time, and it reiterates its request to delay intertie convergence bidding for up to 12 months.

### **A. WPTF Fails to Highlight Deficiencies in the Supplemental DMM Report**

WPTF criticizes in several respects the Supplemental DMM Report, which is the basis of the CAISO's waiver request. WPTF "disagrees with the presumptions and findings, but most importantly finds them insufficient to warrant such extreme and hasty action as the CAISO has requested."<sup>5</sup> WPTF fails, however, to identify any meaningful defects in the Supplemental DMM Report.

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Pasadena, and Riverside, California (Six Cities); Pacific Gas and Electric Company (PG&E); California Department of Water Resources State Water Project (SWP); Southern California Edison Company (SCE).

<sup>4</sup> The City of Santa Clara, California (Santa Clara); The M-S-R Public Power Agency (M-S-R).

<sup>5</sup> WPTF protest, at 7.

WPTF's main criticism seems to be that the examples that form the basis of the Supplemental DMM Report are unrealistic hypotheticals and, thus, the CAISO case for delaying intertie virtual bidding is purely theoretical. WPTF states that the examples are flawed because they are based on cases where:

(1) there are no economic bids in real time and (2) there is no pro rata curtailment in real time. Only in these cases do the conclusions hold that shadow prices do not reflect congestion.<sup>6</sup>

DMM's examples assumed there are no economic bids at the interties in the real-time market, which includes the fifteen-minute market, because, in reality, this is precisely the case on most interties, as illustrated in Figure 1 of the Supplemental DMM Report.<sup>7</sup> It would have been unrealistically counterfactual for DMM to have assumed any differently. WPTF also mistakenly claims that the Supplemental DMM Report assumes there is no *pro rata* curtailment. The examples do assume this. The examples show that in the hour-ahead scheduling process (which is the first step in the real-time market), *pro rata* curtailments must be performed when the amount of self-scheduled imports exceeds the amount of available capacity. The need to implement these *pro rata* curtailments is what gives rise to the economic inefficiencies illustrated in the Supplemental DMM Report.

WPTF argues that the CAISO's case for a waiver is entirely theoretical, stating that the "DMM supplemental filing is wholly conceptual" and that "no new market data

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<sup>6</sup> WPTF protest, at 7.

<sup>7</sup> The Supplemental DMM Report notes that if there are one or two suppliers able to submit bids at an intertie in the fifteen-minute market, then it may be more profitable for these entities to profit by submitting virtual bids on that intertie rather than relieving congestion by offering a relatively small amount of physical supply in the fifteen-minute market. Supplemental DMM Report, at 16.

has been offered in the latest DMM filing.”<sup>8</sup> WPTF is wrong. The Supplemental DMM Report provided and analyzed actual new market data. Although the CAISO’s December 31 Informational Filing focused on convergence of average energy prices at interties, the Supplemental DMM Report includes summaries of different data and more detailed data analysis compared to prior CAISO or DMM reports. Most importantly, the Supplemental DMM Report shows that there is a complete lack of liquidity of economic bids on most interties in the fifteen-minute market upon which virtual bids on interties would be settled.<sup>9</sup> Without a liquid market of bids by more than one or two suppliers, there is no market upon which reasonable prices can be determined for purposes of settling virtual bids. The Supplemental DMM Report also includes new and more detailed information on differences in the congestion frequency and prices on specific interties.<sup>10</sup> These data show that the market conditions likely to lead to the potential market inefficiencies if virtual bidding on interties is re-introduced in fact exist and are not theoretical.

WPTF also claims that a “significant deficiency in the DMM report is that it presumes that the day-ahead congestion result is the proper one and the real-time congestion result is an erroneous one,”<sup>11</sup> even though WPTF believes “just the opposite could be at least as true.”<sup>12</sup> In this case, WPTF is asking the Commission to dismiss the Supplemental DMM report on the basis that it “simply presumes that the CAISO day-

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<sup>8</sup> WPTF protest, at 6.

<sup>9</sup> Supplemental DMM Report, at fig. 1.

<sup>10</sup> Supplemental DMM Report, at 5-7.

<sup>11</sup> WPTF protest, at 9.

<sup>12</sup> WPTF protest, at 9.

ahead price is correct”<sup>13</sup> and to accept WPTF’s assertion that congestion that occurs in the CAISO’s day-ahead market is more often than not “erroneous.” WPTF offers no support for this assertion and, as such, the Commission should reject it. WPTF fails to offer a compelling explanation as to why day-ahead market congestion would be “erroneous.” The only factor WPTF cites is the “inclusion of neighboring BAA congestion with the deployment of the expanded full network model” by the CAISO.<sup>14</sup> The CAISO routinely provides metrics to the Commission and stakeholders regarding the effectiveness of the expanded network model implemented in Fall 2014. These reports reflect that the expanded network model has improved the match between actual and modeled flows on interties since implementation. Meanwhile, the Supplemental DMM Report does not presume in any way that real-time congestion is “the erroneous one,” as asserted by WPTF. The Supplemental DMM Report instead points out that when self-schedules exceed the available transmission capacity in the hour-ahead scheduling process of the real-time market, this congestion must be resolved in real-time through *pro rata* cuts of hourly self-schedules. Under this scenario, when there are no bids in the fifteen-minute market to manage congestion (as is often the case for most interties), the market software does not produce a congestion price for the fifteen-minute market (or equivalently, produces a congestion price of \$0/MW). This fifteen-minute price – which incorporates a congestion component of \$0/MW – would be used to settle all virtual bids on interties. This price would not reflect the fact that under these conditions the CAISO must manage congestion through *pro rata* cuts of self-

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<sup>13</sup> WPTF protest, at 9.

<sup>14</sup> WPTF protest, at 9.

schedules in the hour ahead market in order to ensure system reliability. As described in the Supplemental DMM Report, this results in an incentive for virtual bidding on interties in the day-ahead market, which would exacerbate the inefficiencies resulting from such *pro rata* cuts in the real-time market.

Finally, WPTF questions whether the issues discussed in the Supplemental DMM Report even support the CAISO waiver request, because “short of reverting back to block-intertie schedules or bid cost recovery for intertie suppliers, there is inherently no quick fix to this situation.”<sup>15</sup> The CAISO agrees there is no quick fix. Indeed, that is the entire basis for requesting a waiver of up to one year. Both options suggested by WTPF would exacerbate the problems with intertie virtual bidding and represent a step backwards toward addressing the issues that the Commission’s requirement for 15-minute scheduling are designed to address. Reverting to block intertie schedules would reinstate the same structural issue with the CAISO markets that led to the initial suspension of virtual bidding on interties in 2011. Providing bid cost recovery for hourly block schedules on interties would provide a subsidy for inflexible hourly resources that would discourage development of 15-minute dispatchable intertie resources, while creating a new source of uplift for other market participants.

**B. Powerex’s Assertion that CAISO Price Formation Issues Are the Primary Impediment to Reinstating Intertie Virtual Bidding is Incorrect, and the Concerns Raised by Powerex are Outside the Scope of the CAISO Waiver Request**

Powerex agrees with the CAISO that reinstating intertie virtual bidding at this time would be problematic but questions the relevance of liquidity in the fifteen-minute

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<sup>15</sup> WPTF protest, at 5.

market at the interties to intertie virtual bidding. Instead, Powerex views the CAISO's price formation processes in the fifteen-minute market as fundamentally flawed and that the lack of liquidity merely reflects those price formation issues. Among other things, Powerex requests the Commission order the CAISO to: immediately convene a stakeholder process on price formation issues relation to intertie convergence bidding; file with the Commission its assessment of the comments received in such stakeholder process; and develop tariff amendments to address the relevant price formation issues.

The CAISO appreciates that Powerex recognizes it would be inappropriate to reinstate intertie virtual bidding on May 1. The CAISO, however, does not agree that Powerex has outlined a reasonable path forward on this matter. The factors that Powerex cite do little to explain why there would be illiquidity of the sort that is at issue in this proceeding:

- With respect to the Congestion Revenue Right (CRR) clawback rule, Powerex offers no valid explanation as to why market participants are discouraged from submitting economic real-time bids to adjust physical day-ahead awards.<sup>16</sup> At worst, this rule would require a market participant to return CRR revenues, but there is no reason why any such "clawbacks" could not be incorporated into a market participant's fifteen-minute market bids. The rule was designed to prevent submission of virtual bids to expand CRR payments. Powerex's claims are unfounded and arbitrary changes to this rule could result in significant market issues the rule was designed to prevent.
- Powerex claims that inefficient imposition of EIM-calculated congestion charges on the users of firm transmission rights on PacifiCorp's system create a financial disincentive for external resources seeking to wheel through PacifiCorp's system.<sup>17</sup> However, a market participant can incorporate any such charges into its fifteen-minute market bids. Additionally, the observed liquidity issues pre-date the imposition of such congestion charges by

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<sup>16</sup> Powerex comments, at 13.

<sup>17</sup> Powerex comments, at 13-14.

PacifiCorp. Finally, these congestion charges assessed by PacifiCorp have been accepted by the Commission.<sup>18</sup>

- Powerex cites the CAISO's rules which do not allow 15-minute intertie resources to participate in the CAISO's market for flexible capacity.<sup>19</sup> The reason for this limitation is simple: these resources cannot be dispatched and ramped on a 5-minute basis.
- Powerex claims that "frequent operator interventions in its real-time markets" by the CAISO "such as the frequent application of load biasing," distort real-time prices and undermine confidence and predictability in CAISO's fifteen-minute dispatches and prices.<sup>20</sup> Regardless of the merits of Powerex's unsupported assertions, Powerex offers no explanation and the CAISO fails to see how this claim is relevant to liquidity issues, given that any fifteen-minute market bid dispatched by the CAISO will be compensated at a level equal to or greater than its bid price.
- Powerex notes that "in recent months, it appears the CAISO has been posting prices as the Cascade intertie based on congestion at an entirely different intertie, the COI."<sup>21</sup> Although Powerex is correct that this error did occur, the CAISO has resolved many of the root causes behind these issues and is continuing to monitor and resolve any newly identified issues. Moreover, the lack of liquidity at Cascade predates this issue. As such, it does not explain a consistent and ongoing lack of bids at this intertie.
- Powerex claims that since the implementation of the fifteen-minute market, the CAISO has "experienced significant errors in its modeling of flows on the Pacific DC Intertie."<sup>22</sup> This issue is irrelevant because the Los Angeles Department of Water and Power does not permit 15-minute scheduling on the Pacific DC Intertie regardless of any such issues.
- Powerex notes that the CAISO has explained in its reports to the Commission that EIM implementation has caused problems in the calculation of prices at the Cascade and Mona scheduling points in real-time.<sup>23</sup> The CAISO agrees that there were problems in calculating prices at these two scheduling points.

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<sup>18</sup> See *PacifiCorp*, 147 FERC ¶ 61,227 (2014), *order denying reh'g and clarification and conditionally accepting compliance filing*, 149 FERC ¶ 61,057 (2014), *order denying reh'g*, 150 FERC ¶ 61,084 (2015).

<sup>19</sup> Powerex comments, at 25.

<sup>20</sup> Powerex comments, at 15.

<sup>21</sup> Powerex comments, at 20.

<sup>22</sup> Powerex comments, at 21.

<sup>23</sup> Powerex comments, at 21.

However, these problems were discussed with participants. The CAISO continues to resolve these root cause issues, the bulk of which have been addressed. Again, the observed liquidity issues pre-date any price calculation issues experience at these locations. Thus, these previous problems do not explain the continued illiquidity at the Cascade and Mona interties, and certainly do not explain the lack of economic bids in the fifteen-minute market at other interties.

Moreover, many of the market grievances Powerex mentions in its comments relate to Docket Nos. ER15-861 and EL15-53, which concern the CAISO's Energy Imbalance Market. Attempting to address those issues in this proceeding would represent an unreasonable and unwarranted expansion of the scope of this narrow waiver request proceeding and would create duplicative proceedings that pose the risk of inconsistent outcomes. As explained above, the CAISO does not believe that these issues are the primary drivers underlying the lack of economic bids at the interties in the fifteen-minute market. Regardless, whatever complaints Powerex has about the Energy Imbalance Market, they should be identified as Energy Imbalance Market issues and treated accordingly.

### **C. Technical Conference on Fifteen-Minute Scheduling in WECC**

Powerex and WPTF also raise questions about the CAISO's motives, intentions, and sincerity. WPTF states that the CAISO's waiver request "should be a bright red flag that something is amiss [and it] urges the Commission to uncover the real story behind what motivates the CAISO to continue to prevent parties from participating in convergence bidding at the interties."<sup>24</sup> WPTF goes on to identify the waiver request as "yet another indication that the CAISO staff is unilaterally blocking the reinstatement of intertie convergence bidding based on its own internal motivations and without

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<sup>24</sup> WPTF protest, at 5.

adequate vetting or due process,”<sup>25</sup> and that the CAISO’s filing “raises further suspicion as to the CAISO’s motives.”<sup>26</sup> WPTF offers that if “the Commission does find any further waiver compelling,” then the Commission should actively oversee the CAISO’s further efforts and, if needed, “conduct a technical conference to ensure the process is adequate and issues are put to rest on the intertie convergence bidding issue.”<sup>27</sup>

Powerex also states that it “is highly skeptical . . . of CAISO’s ability to timely or meaningfully resolve the underlying issues preventing reinstatement of intertie convergence bidding without significant guidance and oversight by the Commission.”<sup>28</sup>

The level of mistrust of the CAISO’s motives and good faith demonstrated by Powerex and WPTF suggest to the CAISO that it will face limited prospects of success in trying to understand the drivers of illiquidity through a CAISO-led process.

Additionally, the underlying causes of illiquidity potentially lie outside the CAISO’s ambit.

The CAISO is not in a position to force all relevant parties to participate in a CAISO process and the CAISO is skeptical that it will be able to obtain through such a process an accurate understanding of what factors have caused illiquidity at the interties in its fifteen-minute market. Accordingly, the CAISO requests that the Commission convene a technical conference at the end of May or early June to bring together the relevant parties to understand why there is a paucity of fifteen-minute scheduling in other WECC balancing authority areas. This in turn will provide the CAISO a basis for understanding why there is illiquidity at the interties in its fifteen-minute market. The April 3 filing also

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<sup>25</sup> WPTF protest, at 5

<sup>26</sup> WPTF protest, at 13.

<sup>27</sup> WPTF protest, at 13.

<sup>28</sup> Powerex comments, at 16.

notes that the CAISO has identified potential software enhancements that are related to this topic.<sup>29</sup> The CAISO will be prepared to discuss these enhancements and any other potentially relevant CAISO market improvements at the technical conference.

The CAISO's hope is that through this technical conference the parties can develop a common and accepted understanding of why there has been a relative lack of economic participation at the interties in the fifteen-minute market. Only once that happens can the CAISO move forward with the additional process of developing, in conjunction with its stakeholders, rules governing when intertie convergence bidding can resume.

Respectfully submitted,

**By: /s/ David S. Zlotlow**

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Dated: April 20, 2015

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<sup>29</sup> April 3 filing, at 13.

## CERTIFICATE OF SERVICE

I hereby certify that I have served the foregoing document upon the parties listed on the official service lists in the above-referenced 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 20<sup>th</sup> day of April 2015.

*/s/ Anna Pascuzzo*

Anna Pascuzzo