

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

California Independent System) Docket No. ER11-4580-000
Operator Corporation)

**REPLY COMMENTS OF THE
CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION AND THE
DEPARTMENT OF MARKET MONITORING**

I. INTRODUCTION AND SUMMARY OF COMMENTS

Pursuant to the Commission’s February 8, 2012 Notice Establishing Comment Periods,¹ the California Independent System Operator Corporation (ISO) and its Department of Market Monitoring hereby file this reply to the post-technical conference initial comments. As demonstrated in the ISO’s prior filings in this proceeding, its presentation at the February 2, 2012 technical conference, and discussed further in its initial post-technical comments, the market inefficiencies caused by having intertie convergence bidding under the existing market design -- interference with day-ahead and real-time price convergence, inefficient day-ahead unit commitment, and increased real-time imbalance energy offset (RTIEO) uplifts – are well established and clear. No party has offered any credible evidence or analysis that negates their occurrence. Therefore, after multiple rounds of comments and ample opportunity for parties to demonstrate otherwise, it is incontrovertible that the suspension of convergence bidding under the current market design is just and reasonable.

It is also clear that these inefficiencies are caused by the coexistence of intertie convergence bidding and the current ISO market design. This relationship is important

¹ On February 28, 2012, the Commission issued a Notice of Extension of Time granting all parties an extension of time to file initial comments until March 16, 2012, and reply comments on or before March 30, 2012.

because it provides important guidance for how best to proceed going forward. Given the difficulties and costs associated with modifying the ISO market design in a timely manner, the proper way to redress these issues was to remove intertie convergence bidding until an appropriate adjustment to the ISO's market design can be developed. Moreover, given that it has not been possible to redesign the market since last November, it would be illogical to reintroduce intertie convergence bidding at this time. Going forward, the only logical way to address the identified issues is to allow the ISO and stakeholders sufficient time to develop necessary measures to prevent the identified issues from reemerging before reinstating intertie convergence bidding. This approach is supported by the evidence provided in this proceeding record.

The ISO is moving forward as quickly as possible on such efforts and has already made a great deal of progress in that direction. In their initial comments, none of the parties offer an alternative path that would enable the ISO to safely reinstate intertie convergence bidding and avoid the issues identified in this proceeding. As discussed further below, the proposed alternatives require the ISO and the Commission to ignore the hefty price tag associated with allowing intertie convergence bidding under the current market design and do not provide a viable form of relief for market participants that assert intertie convergence bidding is necessary for hedging purposes. Moreover, despite repeated solicitations by the ISO and the Commission, parties have failed to identify an urgent need for the reinstatement of intertie convergence bidding. Only one party has indicated it has actually used intertie convergence bidding for the purpose of hedging variability associated with variable energy resources. Parties also raise the

concern that *in the future* the ISO will be faced with an influx of resources and will require tools such as convergence bidding to deal with such variability.

The ISO does not dispute that there are benefits from properly functioning convergence bidding and that with the proper safeguards in place, there may be potential benefits from its use in the ISO market. However, the evidence brought forth in this proceeding by all parties clearly demonstrates these potential benefits are currently overshadowed by the significant costs associated with intertie convergence bidding under the current market design. Despite the lack of any evidence of any purported benefits, certain interveners suggest that the Commission should allow for the reinstatement of intertie convergence bidding at the potential annual cost of \$42 million. These costs would be almost entirely borne by a segment of ISO participants – load serving entities – that are not only unable to protect themselves from such costs, but appear to be immune from any of the purported benefits intertie convergence bidding could bring under the current market design. The ISO cannot provide the Commission with any reason why load serving entities should pay this cost and the Commission should not impose this additional burden on such market participants unless it or any market participant can demonstrate any benefit to load serving entities. The record is devoid of such evidence because there is none.

For all these reasons, the Commission should allow the ISO to complete the ongoing stakeholder process and soon bring to the Commission a proposal for the prudent reinstatement of intertie convergence bidding. As discussed further below, the ISO anticipates this process will yield a proposal for the Commission's consideration as early as September 2012 that addresses the issues identified in this proceeding. To do

otherwise, and impose the immediate reinstatement of convergence bidding without such measures would require ignoring the magnitude of evidence of adverse impacts of intertie convergence bidding under the current market design.

II. Reply Comments

A. The Record Supports Suspending Intertie Convergence Bidding until Corrective Adjustments to the ISO's Market Structure can be Implemented.

In its opening comments, the ISO set forth in detail the record of evidence demonstrating that intertie convergence bidding, when combined with the ISO's current multiple settlement structure in the real-time, has: (1) negatively impacted price convergence between energy prices set in the day-ahead market and those set in the five minute real-time dispatch process of the real-time market; (2) caused inefficient unit commitment in the day-ahead market resulting in greater reliance on the residual unit commitment (RUC) process, and (3) produced large uplift costs in the RTIEO account. Nearly all of the costs associated with these inefficiencies are ultimately paid for by load serving entities that have no means to avoid them.² The fact of these past impacts is well documented and is not disputed by most parties filing opening comments.

Indeed, some of the parties that most strongly favor quickly returning intertie convergence bidding, acknowledge the existence of such impacts, but seek to minimize their importance by suggesting that the primary cause of the impacts was not intertie convergence bidding itself, but rather the underlying dual-settlement market structure in which intertie convergence bidding takes place.³ This argument about what constitutes

² See Initial Comments of the California Independent System Operator Corporation ("ISO Initial Comments") in Docket No. ER11-4850 at 3-14. The ISO states "nearly" here because a small portion of these costs may be paid for by virtual bidders that are subject to the first tier of RUC costs. See Section 11.8.6.5.3.

³ See, e.g., Comments of Morgan Stanley Capital Group Inc. ("Morgan Stanley Initial Comments") at 3-5; Post-Technical Conference Comments of the NRG Companies ("NRG Initial Comments") at 3; Post-Technical

the primary or underlying cause is not productive because the fact remains that, as long as both components – intertie convergence bidding and the current dual-settlement market structure – are in place, the structural conditions will be in place for these demonstrated inefficient outcomes to recur. For this reason, the Commission should refrain from reinstating intertie convergence bidding until a set of changes can be made to the ISO's settlement structure that will eliminate or at least strongly mitigate the incentives that necessitated its suspension in the first instance.

Other proponents of immediate reinstatement argue that, despite these demonstrated inefficiencies, intertie convergence bidding should be immediately reinstated because those impacts are less likely now given ISO operational improvements that have reduced the opportunity for virtual bidders to arbitrage expected differences in price between the day-head, hour-ahead, and real-time markets.⁴ The ISO has indeed made improvements to its operational practices. But as discussed in the ISO's Initial Comments, there is no basis for concluding that the ISO has succeeded in fully eliminating such predictable price disparities, thereby preventing virtual bidders from engaging in the same inefficient arbitraging practices upon reinstatement of intertie convergence bidding. Further, changing operational conditions could exacerbate this issue. For example, the ISO currently faces significant operational challenges in the Southern California region that potentially could create predictable disparities in market pricing that if combined with the type of intertie convergence bidding previously observed would exacerbate the financial impact of disparate prices.

Conference Comments of the Financial Institutions Energy Group ("FIEG Initial Comments") at 2; Post Technical Conference Comments of Brookfield Energy Marketing LP ("Brookfield Initial Comments") at 6.

⁴ See, e.g., Post-Technical Conference Comments of The Western Power Trading Forum ("WPTF Initial Comments") at 11-12.; Post-Technical Comments of J.P. Morgan Ventures Energy Corp. and BE CA LLC ("JP Morgan Initial Comments") at 8-9.

The ISO's operational improvements have not changed the fundamental structural incentives virtual bidders face, which create a strong incentive to continue pursuing the same bidding strategies that produced these inefficiencies in the first instance.⁵ It is, moreover, especially unreasonable to assume that virtual bidders will refrain from arbitraging potential price disparities across the different settlement markets given the existing large asymmetry between the maximum price cap and the minimum price floor. As explained in the ISO's Initial Comments, this disparity provides a large incentive for virtual bidders to continue strategies that seek to find hours when Hour-Ahead Scheduling Process (HASP) and Real-Time Dispatch (RTD) (which is the five minute dispatch process of the Real-time Market) settlement prices are likely to differ because the financial benefits of finding such instances far exceeds the penalty for making incorrect predictions.⁶

Finally, WPTF and Morgan Stanley argue that intertie convergence bidding has led to lower integrated forward market (IFM) prices and suggest that this alleged impact justifies an immediate return of intertie convergence bidding because it means that RTIEO uplift costs are not really harming LSEs.⁷ This argument fails at the outset because it construes too narrowly the fundamental problem that is at issue. High RTIEO uplift costs, though troubling, are not the core reason why intertie convergence bidding needs to remain suspended. As noted, the core reason is that intertie convergence bidding, when combined with the current market settlement structure, produces bidding practices that undermine the more fundamental objective of converging of day-ahead

⁵ See ISO Initial Comments at 13-14.

⁶ *Id.* at 14.

⁷ WPTF Comments at 6-9; Morgan Stanley Comments at 10-12 & Appendix A.

and RTD prices, which in turn interferes with efficient market-based day-ahead unit commitment, requires excessive reliance on non-market-based RUC processes, and produces an offsetting intertie and internal virtual bidding pattern that has no beneficial purpose and serves only to drive up RTIEO uplift costs. Because the core problem is a structure that fundamentally promotes inefficient bidding practices, an analysis that focuses solely on comparing one distortion caused by those practices (higher RTIEO costs) with another such distortion (a purported reduction in day-ahead prices) ultimately misses the mark. The proper goal is to eliminate all of these distortions by fixing the structural incentives that are driving them – an outcome that cannot be accomplished unless intertie convergence bidding remains suspended until a proper structural remedy is in place.

WPTF and Morgan Stanley's argument also fails in substance for two reasons. First, the offsetting internal and intertie convergence bids that are at the center of the problem here do not in fact reduce day-ahead prices because they are offsetting. Second, even if day-ahead prices may be reduced overall as a result of intertie convergence supply in excess of the offsetting internal virtual demand, this argument incorrectly assumes that such lower day-ahead prices necessarily would be a benefit, either for the marketplace in general or for load serving entities. It is not realistic to assume that generators who may face lower day-ahead prices would refrain from seeking to make up for those revenues through other sources, such as through the capacity prices that load serving entities must pay in their Resource Adequacy contracts. Thus, the purported "savings" in the cost of procurement in the day-ahead market may well be lost through payments made in another form. Moreover, if

generators are not able to recover such costs in those contracts, there is a risk of inadequate supply, which is problematic for the market as a whole. Put simply, because any reduction in day-ahead market prices is being driven by a market design issue rather than by efficient bidding in response to accurate market signals, it does not constitute a benefit that would warrant reintroducing intertie convergence bidding at this time.

B. Parties Fail to Provide Compelling Evidence for the Immediate Reinstatement of Intertie Convergence Bidding under the Current Market Design.

Prior to the ISO's initial filing in this proceeding seeking authority to cease intertie convergence bidding under the current market design, the ISO solicited information from stakeholders demonstrating how intertie convergence bids are used for legitimate business needs. Commission staff asked for the same information during the February 2, 2012 technical conference. Interveners, however, have failed to provide any concrete or verifiable evidence of such current actual use. Even in the latest round of comments, those interveners seeking the reinstatement of intertie convergence bidding focus mostly on the *possible* benefits for convergence bidding, but do not present meaningful evidence of how they actually employ intertie convergence bids for some legitimate business need.⁸ The ISO does not disagree that such potential benefits are worth pursuing. However, commenters fail to provide sufficient evidence that supports a conclusion that there is an *immediate* need for intertie convergence bidding and that such a need outweighs the burden imposed on other market participants.

⁸ For example, Brookfield and WPTF again recite the potential benefits such as increased competition and market liquidity, as well as improved market efficiency. Brookfield Initial Comments at p. 7; WPTF Initial Comments at p. 16-17. Financial Institutions Initial Comments at pp. 3-4.

Some parties assert that intertie convergence bids are necessary to manage their overall risk exposure.⁹ Interveners are persuasive in arguing that under the current market design intertie convergence bidding provides the ability to take offsetting positions between two prices that can in certain circumstances provide a stream of revenue for parties taking those positions. Such parties, of course, can use that stream of income to offset all sorts of financial exposure. However, while the ISO does not dispute that market participants may use virtual bids to manage financial risk in various other market activities, the cost to the ISO market of providing such a service must be balanced with the benefits to the rest of the market. In this respect, parties asserting the need for such a financial tool fail to specify how its risk exposure management benefits the ISO market, whether such risk management tools are available outside the ISO market, and any justification for imposing a cost to other market participants for this financial service. In contrast, the ISO has demonstrated in this proceeding that the cost of maintaining that financial tool is substantial, if left unchecked can increase over time, and is almost entirely borne by parties not claiming to use (or need) virtual bids to hedge financial risk in this fashion.¹⁰

Others point out that convergence bidding at the interties will be especially needed for hedging the intermittency of renewable resources as the portfolio of such resources increases in the ISO market.¹¹ However, no party states or suggests that it has made substantial use of intertie convergence bidding for this stated purpose.¹² In

⁹ For example, JP Morgan states that it uses intertie convergence bids to manage its portfolio risk of a multitude of market activity. JP Morgan Initial Comments at pp. 4-5

¹⁰ See Rothleder Testimony at pp. 13-17. ISO Initial Comments at pp. 3-14.

¹¹ See Brookfield Initial Comments at p. 11.

¹² Morgan Stanley is the only actual participant to submit comments contending that they actually used virtual bidding to hedge any renewable imports. Morgan Stanley asserts that “during the period when intertie convergence

the technical conference, DMM described the specific virtual and physical scheduling pattern that could be indicative of use of virtual imports to hedge renewable imports and indicated that “review by DMM indicates such use of virtual bidding was minimal or non-existent.”¹³ DMM stands by this assessment.¹⁴ However, DMM is unable to provide any details of its analysis since this would reveal commercially sensitive information about the bidding practices of individual market participants. Claims that these alleged benefits are significant must be disregarded absent any more specific information provided by Morgan Stanley or other participants of their actual use of convergence bidding to facilitate renewable imports. Indeed, the comments of the parties using intertie convergence bidding are entirely devoid of information quantifying the magnitude or frequency of any such use, thus suggesting – consistent with DMM’s conclusions – that such use, if any, has been very limited. Therefore, while the ISO recognizes that this need may increase over time, this need is not an urgent need and can be readily addressed in time frames for reinstatement of convergence bidding in the ISO’s two options discussed in its Initial Comments.

bidding was permitted, MSCG used such bidding to hedge its renewable imports.” See Morgan Stanley Initial Comments at p.7. However, Morgan Stanley provides no specific information as to the frequency or amount of such renewable import made using virtual bids as hedging.

¹³ See DMM Slide 8.

¹⁴ As discussed in detail in the ISO’s initial comments, DMM examined bidding data for the entire period when intertie convergence bidding was in effect for evidence that such bidding was being used for the hedging and related benefits that its proponents have identified. *Id.* at 10-13.

C. Proposals for The Immediate Reinstatement of Convergence Bidding Subject to Upper Thresholds are Not Justified and Provide Little Assurance for Ensuring an Adequate Hedging Tool Parties Assert is needed.

Despite their opposition to the removal of intertie convergence bidding in the first instance, several parties propose that the Commission require the ISO to reinstate intertie convergence bidding with the adoption of certain monetary thresholds for RTIEO impact (generally \$3.5 million in uplift cost per month) to protect against excessive adverse market outcomes.¹⁵ These proposed measures offer no protection against the market inefficiencies caused by intertie convergence bidding identified in this proceeding and instead offer a large cost to the market without any apparent benefit. As discussed above, the only benefits intertie convergence bidding seems to provide under the current market design is the opportunity to hedge general financial risk, and in a limited way hedge the intermittency of renewable resources. Commenters that propose immediate reinstatement of convergence bidding with the proposed thresholds are essentially asking the Commission to find that there is sufficient evidence in the record for the Commission to find that these potential benefits to a small number of market participants are worth a price of up to \$42 million per year. The ISO submits that there is no evidence for such a cost to the market and under their proposed thresholds, there is no guarantee that the purported needed hedging tool will be available for the bulk of each month.

While the proposals for immediate reinstatement of convergence bidding vary minimally, they all provide the same essential recommendation that the ISO reinstate

¹⁵ See e.g., Brookfield Initial Comments at 17; WPTF Initial Comments at 22; JP Morgan Initial Comments at 12.

convergence bidding subject to a threshold requirement that if the portion of RTIEO due to intertie convergence reaches the threshold circuit-breaker (in most cases \$3.5 million) within a month, intertie convergence bidding would cease for the month and resume the next month. The proposals do not include a ban on scheduling coordinator specific balanced intertie convergence bids and therefore allow for the possibility that the entire threshold can be driven entirely by such trades. Based on the data the ISO provided in this proceeding, it is clear and incontrovertible that both scheduling coordinator-specific and inter-scheduling coordinator balance trades can readily drive RTIEO to the threshold in the early part of the month. Because there is no way of knowing whether the parties are conducting such trades for legitimate business need, there will be an incentive for market participants that do not bear the cost of the RTIEO to simply accrue the revenue associated with the balanced intertie convergence bidding practices as soon as possible.

Therefore, the only remaining purpose for the recommended thresholds is to allow virtual bidders the benefit of a stream of revenue without any quantifiable benefit to the ISO market. In contrast, the ISO interim proposals currently under consideration ensure that the market is not exposed to such costs without any justification. Under the first option, the ISO provides an interim measure that if adopted would allow for the reinstatement of convergence bidding by the end of 2012. As explained in the ISO's initial comments, the interim proposal provides some checks and balances that allow parties the opportunity to use intertie convergence bidding for legitimate business needs

but includes disincentives for overuse.¹⁶ The longer-term and preferred solution provides a settlement solution that eliminates the financial impact of such trades on the rest of the market.

The ISO's conclusions are supported by its DMM. DMM agrees that if these hedging and risk management opportunities could be provided without imposing a significant cost on other participants or overall market efficiency, then it would be appropriate to consider the degree to which alternative design options might provide these potential benefits. However, DMM agrees that experience shows that simply re-implementing convergence bidding at interties as per the initial design could only provide these alleged hedging benefits to these few participants at significant cost and risk to others and overall market efficiency. If the hedging benefits alleged by some participants are so significant, then the cost and risks of this hedging should be borne by the entities directly benefiting from any such hedging. Moreover, participants can seek to procure hedging through bilateral market arrangements if the cost of such hedging is less than the benefits to these participants.

D. The ISO's Current Stakeholder Process Will Soon Yield a More Complete Proposal for the Commission's Consideration that Mitigates for the Issues Identified in this Proceeding.

Since the ISO filed its initial comments, the ISO stakeholder process considering intertie pricing options and options for the reinstatement of convergence bidding has proceeded. On March 20, 2012, the ISO held a stakeholder meeting to discuss the

¹⁶ See ISO Initial Comments at 15-20.

options presented in its Straw Proposal¹⁷ and on March 27, 2012 stakeholders submitted written comments. Generally, the comments offered to the ISO in its stakeholder process parallel the comments submitted in this proceeding. In summary, certain parties ask that the ISO reinstate intertie convergence bidding immediately without any changes and others ask that the ISO not do so until the ISO can adopt robust solutions to avoid the issues identified in this proceeding. Some parties offer the option of adopting certain circuit breakers and recommend that rather than adopting the interim solution that the ISO instead work towards the longer-term pricing solution with these circuit breakers and intertie convergence bidding in place.

The ISO is considering the stakeholder comments and will be issuing its second revised straw proposal on or about April 12, 2012. At this time, the ISO staff continues to believe that not pursuing an interim fix and immediately beginning to develop a longer-term solution (the second option) is the preferred option given that it enables the ISO to adopt the more robust solution sooner and avoid the costs associated with implementing the interim solution. For the reasons discussed above, the threshold options are not viable and would impose additional costs to load serving entities without any apparent benefits. If the ISO decides to pursue the second option, it expects to seek approval from its board of governors by September 2012 and will file a proposal with the Commission soon after. Depending on the details of the final solution, the ISO anticipates to be able to implement the longer term solution by fall of 2013. During that time, intertie convergence bidding would not be in place. The ISO believes, however, that this is a reasonable outcome in light of the overall circumstances. In particular, the

¹⁷ See Attachment to ISO Initial Comments or <http://www.caiso.com/Documents/RevisedStrawProposal-IntertiePricingSettlement.pdf>.

ISO believes that given that the level of imports of variable resources is not expected to increase significantly until after 2013, there will not be a substantial adverse impact on market participants who intend to use this tool to hedge their variability.

III. Conclusion

For all the reasons stated above, and the numerous filings and pleadings filed by the ISO in this proceeding, the ISO asks that the Commission permit the ISO additional time to conclude its stakeholder process and file with the Commission later this year a proposal for the reinstatement of convergence bidding.

Respectfully submitted,

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Dated: March 30, 2012

CERTIFICATE OF SERVICE

I hereby certify that I have served the foregoing document upon all of the parties listed on the official service list for the above-referenced proceeding, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2010).

Dated at Folsom, CA, this 30th day of March, 2012.

Anna Pascuzzo

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