UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

California Independent System)	Docket No. ER10-1559-000
Operator Corporation)	

ANSWER TO MOTIONS TO INTERVENE AND COMMENTS, AND MOTION TO FILE ANSWER AND ANSWER TO PROTESTS, OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

The California Independent System Operator Corporation ("ISO")¹ hereby files its answer to the motions to intervene, comments, and protests submitted in this proceeding² in response to the ISO's submittal on June 25, 2010, of its tariff amendment to implement convergence bidding ("Convergence Bidding Tariff Amendment") for Commission approval.³

The ISO is also sometimes referred to as the CAISO. Capitalized terms not otherwise defined herein have the meanings set forth in Appendix A to the ISO tariff.

The following entities filed motions to intervene, comments, and protests: the California Department of Water Resources State Water Project ("SWP"); California Energy Resources Scheduling Division of the California Department of Water Resources ("CERS"); California Public Utilities Commission ("CPUC"); Cities of Anaheim, Azusa, Banning, Colton, Pasadena, and Riverside, California; Cities of Santa Clara and Redding, California, and M-S-R Public Power Agency; DC Energy, LLC ("DC Energy"); Dynegy Morro Bay, LLC, Dynegy Moss Landing, LLC, Dynegy Oakland, LLC, and Dynegy South Bay, LLC (collectively, "Dynegy"); J.P. Morgan Ventures Energy Corporation and BE CA LLC (together, "J.P. Morgan"); Modesto Irrigation District; Northern California Power Agency ("NCPA"); Pacific Gas and Electric Company ("PG&E"); Powerex Corp. ("Powerex"); SESCO Enterprises, LLC, Jump Power, LLC, Silverado Energy LP, JPTC, LLC, and Solios Power, LLC (collectively, "Financial Marketers"); Southern California Edison Company ("SCE"); and Western Power Trading Forum ("WPTF"). In addition, the CPUC submitted a notice of intervention in the proceeding.

The ISO submits this answer pursuant to Rules 212 and 213 of the Commission's Rules of Practice and Procedure, 18 C.F.R. §§ 385.212, 385.213 (2010). The ISO requests waiver of Rule 213(a)(2), 18 C.F.R. § 385.213(a)(2), to permit it to make an answer to the protests. Good cause for this waiver exists here because the answer will aid the Commission in understanding the issues in the proceeding, provide additional information to assist the Commission in the decision-making process, and help to ensure a complete and accurate record in this case. See, e.g., Entergy Services, Inc., 116 FERC ¶ 61,286, at P 6 (2006); Midwest Independent Transmission System Operator, Inc., 116 FERC ¶ 61,124, at P 11 (2006); High Island Offshore System, L.L.C., 113 FERC ¶ 61,202, at P 8 (2005).

The ISO filed the Convergence Bidding Tariff Amendment pursuant to the direction provided by the Commission in *California Independent System Operator Corporation*, 130 FERC ¶ 61,122 (2010) ("Convergence Bidding Design Order"). In that Order, the Commission approved in principle the convergence bidding design filing the ISO submitted in Docket No. ER10-300-000 ("Convergence Bidding Design Filing"), including many of the specific proposals set forth therein, subject to certain modifications to be made in the Convergence Bidding Tariff Amendment.⁴

The majority of the commenters in this proceeding express support for most elements of the Convergence Bidding Tariff Amendment.⁵ Also, a number of the commenters – even ones critical of some of the tariff elements – applaud the thoroughness of the stakeholder process that resulted in the instant filing.⁶ This praise reflects the commitment of the stakeholders and the ISO to working together to address issues regarding the tariff language to the greatest extent practicable prior to filing with the Commission.

The ISO requests that the Commission accept the Convergence Bidding

Tariff Amendment as submitted, subject to certain clarifications and

recommendations provided by parties and pursuant to the ISO's own review.

The terms "convergence" and "virtual" are used interchangeably in this answer: "virtual" emphasizes the non-physical nature of virtual bids while "convergence" highlights one of the most significant expected benefits of the convergence bidding market feature – convergence of dayahead and real-time prices.

See, e.g., DC Energy at 4; Dynegy at 3; J.P. Morgan at 3-4; PG&E at 4-5; Powerex at 5-6; WPTF at 3.

DC Energy at 1; Dynegy at 2; J.P. Morgan at 3; WPTF at 1.

I. Answer

A. The Commission Should Accept the ISO's Proposals for Applying Position Limits at Internal Nodes and Interties.

In the Convergence Bidding Tariff Amendment, the ISO stated that it continues to believe that position limits at both internal nodes and the interties⁷ are appropriate but that it proposes position limits that are approximately half the duration of the position limits discussed in the Convergence Bidding Design Filing, *i.e.*, the ISO now proposes that position limits be phased out at internal nodes over 12 months and that more stringent position limits be phased out at the interties over 16 months after convergence bidding is implemented.⁸ As required by the Convergence Bidding Design Order,⁹ the ISO explained in detail why those proposed position limits are justified.¹⁰

Some parties express their support for the position limits.¹¹ Other parties, however, oppose the proposed use and/or duration of the position limits, mainly based on the same types of arguments they made in response to the

Powerex argues that the ISO should modify proposed Section 30.9 of the ISO tariff to state that interties are eligible convergence bidding locations. Powerex at 26. There is no need to make Powerex's proposed modification. Section 30.9 states that virtual bids may be submitted at Eligible PNodes or Eligible Aggregated PNodes. The proposed definitions of the terms Eligible PNode and Eligible Aggregated PNode already include interties. Therefore, no change to Section 30.9 is required.

WPTF states that page 12 of the transmittal letter for the Convergence Bidding Tariff Amendment indicates that the ISO intends to phase out position limits at the interties over 18 months. WPTF at 11 n.12. The ISO wishes to make it clear that the proposed phase-out period at the interties is 16 months.

⁹ Convergence Bidding Design Order at PP 51, 55-56, 68.

Transmittal Letter for Convergence Bidding Tariff Amendment at 9-13; Attachment D to Convergence Bidding Tariff Amendment (Declaration of Margaret Miller) at 2-9.

¹¹ CPUC at 2; NCPA at 4; SCE at 3.

Convergence Bidding Design Filing. ¹² Indeed, some of those parties expressly state that they are reiterating their earlier opposition to the position limits, ¹³ and one party simply repeats, word for word, arguments it made earlier. ¹⁴ The ISO sees no need to respond to the parties' arguments by repeating in this answer the detailed justification for the proposed position limits provided in the Convergence Bidding Design Filing. Instead, the ISO will address here only certain arguments that warrant a further response.

PG&E supports the ISO's proposed position limits at internal nodes and the use of position limits at the interties, but argues that convergence bidding at the interties should be delayed until the ISO resolves the potential issue that virtual imports on the interties may "crowd out" physical imports in the integrated forward market ("IFM"). The ISO raised this potential concern during the stakeholder process as something to monitor for but does not believe this issue warrants a delay in allowing convergence bidding at the interties. PG&E made this same argument regarding the Convergence Bidding Design Filing.

Nevertheless, the Commission agreed with the ISO that convergence bidding should be permitted at the interties and did not require any delay. Therefore, the Commission should not now countenance postponing the implementation of

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See Dynegy at 3; DC Energy at 15-17; Financial Marketers at 11-13; J.P. Morgan at 10-16; Powerex at 10-13; WPTF at 12-21.

DC Energy at 15; J.P. Morgan at 8, 13; Powerex at 10.

Compare pages 11-13 of the Financial Marketers' protest in the instant proceeding with pages 9-11 of the Financial Marketers' protest of the Convergence Bidding Design Filing.

¹⁵ PG&E at 5-6, 9-11.

¹⁶ Convergence Bidding Design Order at PP 61, 66.

convergence bidding at the interties.

The ISO notes that a strategy of offering low-priced virtual imports in the IFM to crowd out physical imports should generally be a money-losing strategy because the virtual bidder will face higher prices to buy back its imports in the hour-ahead scheduling process ("HASP"). Therefore, the ISO believes that closely monitoring the markets for this phenomenon, along with enforcing the lower position limits at the interties, are sufficient protections for the implementation of virtual bidding at the interties to proceed.¹⁷

Several parties argue that any position limits the Commission may approve should be phased out over shorter time periods than the ISO proposes, *i.e.*, time periods ranging from four to seven months after convergence bidding is implemented. The Commission should not require the ISO to phase the position limits out over these short time periods that the parties suggest. As explained in the Convergence Bidding Tariff Amendment, the ISO proposes phase-out periods (12 and 16 months) that are already half (for internal nodes) and more than half (for interties) the length of those the ISO initially proposed. Although the Convergence Bidding Design Order cited the four-month period for interim measures approved in the exceptional dispatch proceeding as an example of an appropriate interim period, the Convergence Bidding Design Order did not state that four months was the *only* appropriate time period for

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Answer to Motions to Intervene, Request for Technical Conference, and Comments, and Motion to File Answer and Answer to Protests, of the California Independent System Operator Corporation, Docket No. ER10-300-000, at 8-9 (Dec. 23, 2009) ("Convergence Bidding Design Filing Answer").

DC Energy at 16; J.P. Morgan at 15-16; Powerex at 10; WPTF at 20-21.

convergence bidding position limits.¹⁹ Moreover, the ISO will not have a significant amount of data to evaluate the potential market impacts of convergence bidding after only four months of operation of the convergence bidding market.²⁰ Likewise, seven months is not enough time for the ISO to obtain a significant amount of data to evaluate potential market impacts. In addition, because the ISO plans to implement convergence bidding on February 1, 2011, a four-month or even a seven-month implementation period for position limits would expire during the first summer season of convergence bidding, when potential adverse market impacts associated with convergence bidding could affect the ability of the ISO to rely upon market mechanisms to satisfy peak load. Thus, the ISO would have substantial concerns about eliminating position limits prior to or during the first summer of convergence bidding implementation.²¹

The CPUC and SCE argue that the position limits should be phased out only after review and approval of each stage of the phase-out by the ISO's Department of Market Monitoring ("DMM") and Market Surveillance Committee ("MSC").²² As the ISO explained in the Convergence Bidding Design Filing Answer in response to similar arguments, there is no need for the ISO to obtain such approval. Prior to each of the ISO's proposed dates for changes in position limits, the ISO will consult with the DMM and MSC. If, based on the input

¹⁹ Transmittal Letter for Convergence Bidding Tariff Amendment at 11.

Id.; Attachment D to Convergence Bidding Tariff Amendment (Declaration of Margaret Miller) at 7.

See id.

²² CPUC at 2; SCE at 3.

provided by the DMM and MSC and on its own analyses, the ISO concludes that it is not appropriate for the ISO to make the position limits change reflected in the ISO's proposal, the ISO will timely make a filing with the Commission to modify the percentage level and/or timetable for the upcoming change.²³ In the Convergence Bidding Design Order, the Commission noted but did not address arguments that the MSC and DMM should be required to approve each phase-out of the position limits.²⁴ Therefore, the Commission implicitly found that, if position limits are put into effect, no approval by the MSC or DMM is required in order to phase them out.

Powerex argues that the ISO should adopt what it calls more market-driven solutions to ensure that market participants receive proper price signals at the interties. By way of example, Powerex suggests that the ISO should change its market rules to allow all resources at interties, not just resource adequacy ("RA") resources, to participate in the residual unit commitment ("RUC") process.²⁵ Powerex's arguments concern changes to the ISO's market rules that are beyond the scope of the instant proceeding, which solely concerns the tariff changes to implement convergence bidding. Therefore, the Commission should reject Powerex's arguments. Powerex argues that, although proposed Section 30.7.2.6.3.2 of the ISO tariff states that the ISO will utilize the 9 a.m. operating transfer capability ("OTC") to calculate position limits at the interties, the ISO

Convergence Bidding Design Filing Answer at 14-15.

See Convergence Bidding Design Order at PP 41, 51-56.

²⁵ Powerex at 14-16.

does not currently post the OTC for all interties.²⁶ The ISO has already posted on its website a preliminary list of locations eligible for convergence bidding and the MW limits for those locations associated with physical load and generation.²⁷ Also, the ISO already posts the import and export OTC values for each intertie in a report issued on the ISO's Open Access Same-Time Information System ("OASIS"). Further, Section 30.7.3.6.3.2 states that the position limits at an intertie will be equal to a tariff-specified percentage of the OTC at the intertie. Therefore, market participants may calculate the position limits at each intertie once they know the OTC.

Powerex also argues that the ISO has not specified whether import OTCs and export OTCs will establish separate and distinct position limits for virtual supply and virtual demand bids at an intertie, or if a single position limit will be used for the aggregate of virtual supply and virtual demand bids at the intertie.²⁸ The ISO has already provided this information in the External Business Requirements Specification ("BRS") for convergence bidding, in which the ISO explained that position limits will be applied separately to virtual supply versus virtual demand. This applies as well to the interties where an import is the same as a virtual supply bid and an export is the same as virtual demand. Import OTCs will establish position limits for virtual supply at the interties and export

²⁶ *Id.* at 13-14.

See http://www.caiso.com/27b6/27b6950d4bf30ex.html. The ISO recently discovered that the list included two locations that are not eligible for convergence bidding and for which the ISO did not publish OTC limits. The ISO has corrected the list to remove those two locations. This may have been the cause of Powerex's concerns.

Powerex at 14.

OTCs will establish separate and distinct position limits for virtual demand at the interties.²⁹ The ISO will post two OTC values (one for import OTC and the other for export OTC) at each intertie that is eligible for convergence bidding.

- B. The Commission Should Approve the Proposed Tariff Provisions to Address the Potential for Market Power and Market Manipulation.
 - 1. The Commission Should Approve the Tariff Provisions to Implement the CRR Settlement Rule.

In the Convergence Bidding Design Order, the Commission found that, consistent with practices in similar markets of Independent System Operators ("ISOs") and Regional Transmission Organizations ("RTOs") with convergence bidding, the ISO's proposed settlement rule for congestion revenue rights ("CRRs") is a reasonable mechanism to mitigate convergence bidding that is intended to alter the value of CRRs. The Commission directed the ISO to file tariff provisions that clearly and objectively describe the instances that warrant mitigation.³⁰ The ISO, in the Convergence Bidding Tariff Amendment, filed detailed tariff language in proposed Section 11.2.4.6 that satisfies the Commission's directive.³¹

BRS for Convergence Bidding, Version 1.0, at 13 (Apr. 19, 2010), available on the ISO's website at http://www.caiso.com/277f/277fde941fab0.pdf.

Convergence Bidding Design Order at P 87.

See Transmittal Letter for Convergence Bidding Tariff Amendment at 18-20. The ISO notes that Section 11.2.4.6 contains more detail than the comparable provisions in the tariffs of other ISOs and RTOs regarding the adjustment of revenues from CRRs. In particular, the relevant tariff provisions of PJM Interconnection, L.L.C. ("PJM") and ISO New England Inc. ("ISO-NE") are about half the length of the ISO's proposed Section 11.2.4.6. See ISO-NE FERC Electric Tariff No. 3, Section III, Appendix A, at Section III.A.8.4; PJM Open Access Transmission Tariff, Attachment K, Sections 5.2.1(b) and -(c).

Although some parties support the ISO's proposed CRR settlement rule,³² other parties argue that Section 11.2.4.6(b) should be modified to include the configurable threshold percentage that the section states will initially be set at 10 percent of the flow limit for each Constraint and may be changed as provided in the Business Practice Manual ("BPM").³³ The ISO proposed including the threshold in the BPM because it anticipates that, especially at the outset of convergence bidding, the threshold percentage may need to be adjusted promptly and, possibly, with some frequency in order to account for changes in market conditions that cannot be anticipated in advance of actual implementation. Requiring this value to be included in the tariff will prevent the ISO from being able to make prompt adjustments to the threshold percentage. Thus, the threshold percentage will be transparent to all market participants. In addition, as set forth in Section 11.2.4.6(b), the DMM will notify the Commission of a change in any Constraint's threshold percentage in a quarterly report.

Powerex argues that the ISO should clarify how it will model flow impacts to determine whether they exceed the initial 10 percent threshold. Powerex contends that, during the stakeholder process, the ISO indicated that only bids that were "10 percent effective" would be subject to adjustments under the CRR settlement rule.³⁴ The ISO believes that a misunderstanding underlies Powerex's argument and that it would be inappropriate and inconsistent with the design of

DC Energy at 4; PG&E at 6.

Dynegy at 3-4; Powerex at 22-23; WPTF at 24.

Powerex at 25.

this settlement rule to agree to the clarification that Powerex requests. The proposed definition of the term Flow Impact in Appendix A of the ISO tariff explains how the ISO will model Flow Impacts. The definition states that:

The Flow Impact is calculated by multiplying the CRR Holder's Virtual Awards at a Node by the shift factor of that Node relative to the Constraint. This product is computed for each Node for which the Convergence Bidding Entity had Virtual Awards, and the Flow Impact is the sum of those products. In this definition, shift factor means the factor to be applied to a resource's expected change in output to determine the amount of flow contribution that change in output will impose on an identified transmission facility or flowgate.

The ISO believes this definition is clear and that the concept of "10 percent effective" is not a component of the CRR settlement rule.

Powerex argues that the proposed CRR settlement rule should be modified to state that the rule does not apply where (1) the combined physical and virtual accepted bids are exposed to the same or more congestion than the CRRs held, or (2) the virtual bid was profitable. Powerex asserts that these modifications should be made because the purpose of the CRR revenue adjustment provision is to prevent intentional uneconomic activity from benefiting other market activities.35

Powerex misconstrues the purpose of the CRR settlement rule. The rule's implementation is automatic, which means that it cannot subjectively contemplate intent. The design of the rule allows economic activity to reduce or eliminate CRR settlement rule charges resulting from uneconomic activity. Modifying the CRR settlement rule so that it would not apply where the virtual bid was profitable, as Powerex proposes, would undermine this feature of the CRR

³⁵ Id. at 23-24.

settlement rule, leading not only to more CRR settlement rule charges but also to larger magnitudes of such charges. Powerex fails to recognize that circumstances where intentional uneconomic activity is absent can nonetheless align the CRR settlement rule charge more equitably with intent and uneconomic activity. Powerex's proposed modifications would inappropriately increase CRR settlement rule charges for entities that engaged in economic activity through profitable virtual bids.

The following examples illustrate how Powerex's modifications would undermine the important role that an entity's profitable virtual bids play in appropriately reducing CRR settlement rule charges. First, consider a particular constraint that increases a particular entity's CRR portfolio value when the constraint has a higher congestion cost. Virtual demand at nodes "upstream" of the constraint (i.e., having a positive shift factor) and virtual supply at nodes "downstream" of the constraint (i.e., having a negative shift factor) decrease congestion on the constraint. These virtual bids would typically be profitable if the constraint had more congestion in the day-ahead than in real-time, because the greater congestion in the day-ahead would result in higher prices "downstream" in the day-ahead, where the virtual supply receives the higher dayahead locational marginal price ("LMP") and pays back the lower real-time LMP. If these profitable virtual bids that decrease congestion on the constraint were excluded from the flow impact calculation under the CRR settlement rule, the rule would inappropriately calculate that the entity's portfolio of virtual bids had a greater flow impact on the constraint than the entity's portfolio of virtual bids

actually did. Excluding profitable bids that decrease congestion would not allow the negative flow impact from the profitable bids to net against the unprofitable virtual bids that had a positive flow impact. Therefore, excluding profitable virtual bids that decrease congestion would erroneously result in more hours passing the flow impact test when day-ahead congestion exceeded real-time congestion, resulting in more CRR settlement rule charges.

Next, consider the case of virtual bids that increase congestion on the constraint. Virtual supply "upstream" of the constraint and virtual demand "downstream" of the constraint increase congestion on the constraint. Such virtual bids would typically be profitable if the constraint had more congestion (i.e., a higher shadow price) in real-time than in the day-ahead. If the constraint has higher congestion in real-time than in the day-ahead, the constraint contributes more to the real-time value of the CRR portfolio than it does to the day-ahead value of the CRR portfolio. In this case, the difference between the constraint's contribution to the day-ahead and real-time value of the CRR portfolio would be a *credit* to the entity, offsetting the CRR settlement rule charge from other hours, provided that the flow impact was high enough for the hour. Excluding these profitable virtual bids from the flow impact calculation would decrease the flow impact, thereby not allowing the entity to receive a credit for having engaged in economic activity, i.e., profitable virtual bids that contributed to convergence of the constraint's shadow price.

Moreover, it is unclear what Powerex means when it states that the CRR settlement rule should not apply where the combined physical and virtual

accepted bids are exposed to the same or more congestion than the CRRs held. Given the general consensus achieved among market participants who were actively involved in the convergence bidding stakeholder process on the functional aspects of the CRR settlement rule, the ISO does not believe it is appropriate to make this change, which could result in unintended consequences that negatively affect the CRR settlement rule design.

Powerex also requests clarification regarding a statement made in stakeholder training sessions that the CRR settlement rule will be applied by individual scheduling coordinator identification code ("SCID"), not by scheduling coordinator. Powerex is concerned that scheduling coordinators that have multiple SCIDs could avoid adjustment of their CRR revenue by creating one SCID that holds CRRs and another SCID that makes virtual bids. 36 The ISO tariff and the BRS rules clearly prevent this loophole. The BRS for convergence bidding explains that the software used to implement the CRR settlement rule will "calculate the daily CRR payment adjustment amount per SC IDs that are mapped to CBs [convergence bidding entities] (that are also CRR Entities), which will roll up to the SC."37 Further, Section 11.2.4.6 refers only to the adjustment of CRR revenue of a scheduling coordinator, not adjustment on an SCID-by-SCID basis. In addition, proposed Section 4.14 of the ISO tariff states that a convergence bidding entity may be represented by only one scheduling coordinator at any given time. Although it is true that a single scheduling

i6 Id. at 25-26.

BRS for Convergence Bidding at 25 (emphasis added).

coordinator can represent more than one convergence bidding entity (see proposed Section 4.5.1(c) of the ISO tariff), and it is true that a convergence bidding entity can have more than one SCID, the ISO will create unique SCIDs that link to the convergence bidding entity to ensure that the ISO enforces the CRR settlement rule as to all CRR holders that are also convergence bidding entities (and/or that have their HASP intertie schedules reversed). Therefore, the CRR settlement rule will aggregate all the SCIDs that map to a convergence bidding entity such that it will be impossible to evade application of the CRR settlement rule using the loophole that Powerex hypothesizes.

Finally, SWP argues that Section 11.2.4.6 should be revised so that recouped CRR revenues are not added to the CRR Balancing Account, but rather are specifically allocated to those harmed. The Commission should not require this revision. The allocation of recouped CRR revenues as SWP proposes would affect every CRR and LMP in the ISO's markets, and would therefore it be a difficult and complex undertaking to design a system that could accomplish this. At present, the ISO has no reason to believe that it will recoup a large enough amount of CRR revenues pursuant to Section 11.2.4.6 to justify taking that extreme course of action. If, however, it turns out that the ISO collects a very large amount of CRR revenues under Section 11.2.4.6, the ISO may consider a future enhancement to the allocation mechanism.

SWP at 4.

2. The Commission Should Approve the Tariff Provisions to Implement the ISO's Authority to Suspend or Limit Convergence Bidding.

The Commission, in the Convergence Bidding Design Order, agreed in principle that the ISO should be granted authority to suspend or limit convergence bidding, subject to the ISO's filing of tariff provisions that (1) clearly and objectively explain the instances in which the ISO will exercise such authority, and (2) state that, when it is possible to do so, the ISO will consult with market participants whose bids are subject to suspension prior to taking such action.³⁹ For the reasons explained in the Convergence Bidding Tariff Amendment, the tariff provisions filed by the ISO meet these requirements.⁴⁰

Some parties support the tariff provisions the ISO filed in their entirety. 41

Other parties raise issues with proposed Section 39.11.2 of the ISO tariff, which concerns the suspension or limitation of convergence bidding by individual market participants. Those parties argue that the Commission's "rule of reason" requires the ISO to include the percentages of significant price divergence described in Sections 39.11.2.2(b) and -(c) in the tariff rather than in the applicable BPM as the ISO proposes. 42 The Commission should find that those arguments are without merit. The rule of reason requires that a tariff include only those practices that significant affects rates and service, that are reasonably

³⁹ Convergence Bidding Design Order at P 88.

Transmittal Letter for Convergence Bidding Tariff Amendment at 21-27; Attachment E to Convergence Bidding Tariff Amendment (Declaration of Eric Hildebrandt) at 3-11.

⁴¹ PG&E at 6-7; SCE at 19.

Dynegy at 3-4; Powerex at 16-19; WPTF at 24-25.

susceptible of specification, and that are not so generally understood in any contractual arrangement as to render recitation superfluous. As explained in the Convergence Bidding Tariff Amendment, the percentages are not rates, terms, or conditions. They are simply factors used in an analytic tool for triggering when additional investigation may be warranted. Further, in the initial period after convergence bidding is implemented, the ISO anticipates that variances in divergence may fluctuate fairly quickly and frequently. Therefore, including the percentages in the BPM gives the ISO needed flexibility to adjust them based on actual market conditions, which will be especially important in the early period of convergence bidding implementation and may still be important from time to time after then.

Powerex notes that the initial proposal of the Midwest Independent

Transmission System Operator, Inc. ("Midwest ISO") for suspending or limiting
virtual bidding did not initially include any percentage threshold, but that the

Midwest ISO subsequently added a percentage threshold to its tariff in response
to a Commission directive to "establish clear, objectively identifiable standards for
what constitutes an improper imbalance between bidding in the Day Ahead and
Real Time market."

The Commission did not, however, state that including a
percentage threshold in the Midwest ISO tariff was necessary to establish such
clear, objectively identifiable standards; the Midwest ISO simply chose to add the

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⁴³ City of Cleveland v. FERC, 773 F.2d 1368, 1376 (D.C. Cir. 1985).

Transmittal Letter for Convergence Bidding Tariff Amendment at 23; Attachment E to Convergence Bidding Tariff Amendment (Declaration of Eric Hildebrandt) at 6.

Powerex at 17-18 (quoting *Midwest Independent Transmission System Operator, Inc.*, 108 FERC ¶ 61,163, at P 334 (2004)).

threshold percentage to its tariff as a means of satisfying the Commission's directive. The ISO is not required to replicate the means that the Midwest ISO chose to clarify its authority to suspend or limit virtual bidding. As the Commission has explained, "the courts and this Commission have recognized that there is not a single just and reasonable rate. Instead, we evaluate [proposals under Section 205 of the Federal Power Act] to determine whether they fall into a zone of reasonableness. So long as the end result is reasonable, the [proposal] will satisfy the statutory standard."⁴⁶ The ISO has shown that its proposal sets forth clear, objectively identifiable standards and is reasonable.

Powerex argues that the ISO's use of the terms "causing" and "contributing to" an unwarranted price divergence in Sections 39.11.2.2(b) and -(c) contributes to a lack of clarity. Powerex notes that the Commission has found such language to be duplicative in evaluating similar tariff provisions in other ISOs, for example, by directing the Midwest ISO to eliminate use of the phrase "contributes to" and use only the term "cause" in its tariff. The ISO agrees that activity that is found to "significantly contribute" to an excess divergence is necessarily "causal" in nature. Because the Commission has previously clarified that the phrase "causes" includes the concept of "contributing to," the ISO would not object to substituting "cause" for "significantly contributed to" or "contributes" throughout Section 39.11.2.2(b) and -(c) in a compliance

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Calpine Corp. v. California Independent System Operator Corp., 128 FERC ¶ 61,271, at P 41 (2009) (citations omitted).

⁴⁷ Powerex at 19-20.

Id. at 20 (citing Midwest Independent Transmission System Operator, Inc., 108 FERC ¶ 61,163, at P 263).

filing. This change would result in the ISO tariff language tracking the corresponding language of the Midwest ISO tariff in relevant part.⁴⁹ The ISO tariff will therefore include the same level of clarity on this point as the Commission-accepted Midwest ISO tariff.

One of the most critical elements of the ISO's determination of whether it is appropriate to suspend or limit virtual bidding is the determination of the average divergence between day-ahead prices and real-time prices. No commenter opposes the use of average divergence between day-ahead prices and real-time prices. Powerex, however, asserts that the ISO's proposed method of calculating average divergence under Section 39.11.2.2 is "too sweeping" and will tend to depress the ISO's system-wide average. Powerex suggests an alternative approach to the calculation of the "average for virtual supply bids" and "the average for virtual demand bids." These comments are wholly inconsistent with the ISO's approach. The ISO will calculate the systemwide average divergence of prices and then use that as a benchmark against which to compare price divergence for specific locations. The system-wide average will reflect only a difference in actual prices and will not require the calculation of averages for specific types of virtual bids. The types of exclusions apparently proposed by Powerex are fundamentally incompatible with the ISO's

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Section 65.5.2(c) of the Midwest ISO tariff applies when the "Virtual Transaction practices of one or more Market Participants *cause* this divergence of LMPs between the two (2) markets," (emphasis added).

⁵⁰ Powerex at 20-21.

approach to determining whether virtual bidding activity causes unwarranted divergence.

All of the provisions in Section 39.11.2 (and the rest of the convergence bidding tariff changes) were the result of an extensive stakeholder process in which Powerex participated. If Powerex thought the language in Section 39.11.2 was confusing or ambiguous, it should have requested clarification in the stakeholder process. Powerex did not, however, raise these issues in the stakeholder process. ⁵¹ Moreover, pursuant to Section 39.11.2.3(b), the ISO will submit to the Commission all supporting documentation regarding each case in which it suspends or limits virtual bidding. Therefore, the Commission will be able to evaluate whether suspension or limitation of virtual bidding is justified, and, as set forth in Section 39.11.2.3(c), the Commission can to discontinue the suspension or limitation if the Commission disagrees with the ISO's determination.

Powerex argues that, in the event the ISO is responding to a reliability concern in limiting or suspending an entity's convergence bidding activity, the ISO should clearly communicate to the scheduling coordinator the specific activity that impacts reliability and what the scheduling coordinator must do to remedy the situation.⁵² The ISO's proposed tariff language already provides for communication with an entity subject to suspension or limitation. Pursuant to

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See the written comments submitted by Powerex in the convergence bidding stakeholder process, available on the ISO's website at http://www.caiso.com/27d8/27d8ed2644f00.html#2781b4ba39620.

Powerex at 22. Although it does not say so, Powerex appears to be referring to Section 39.11.2.2(a), which gives the ISO the authority to suspend or limit virtual bidding activities that detrimentally affect system reliability or grid operations.

Section 39.11.2.3(a), whenever practicable, the ISO will notify affected scheduling coordinators and convergence bidding entities that the ISO intends to suspend or limit virtual bidding, and will confer and exchange information with the affected scheduling coordinators and convergence bidding entities in an effort to resolve any dispute as to whether suspension or limitation of virtual bidding is warranted. Further, pursuant to Section 39.11.2.3(a), in cases where taking these actions prior to suspending or limiting virtual bidding is not practicable, the ISO will promptly take these actions after the suspension or limitation of virtual bidding occurs.

DC Energy states that, although it supports proposed Section 39.11.2 of the ISO tariff, it believes the ISO should provide additional detail regarding proposed Section 7.7.15.1(h) of the ISO tariff, which would authorize the ISO to suspend or limit the ability of all scheduling coordinators to submit virtual bids. DC Energy argues that the ISO should explain the circumstances in which Section 7.7.15.1(h) will apply and provide other supporting information.⁵³ No additional detail is required. Section 7.7.15.1 lists the various actions the ISO may take in the event of a market disruption, to prevent a market disruption, or to minimize the extent of a market disruption, with a market disruption being defined in Appendix A of the ISO tariff as "an action or event that causes a failure of a CAISO Market, related to system operation issues or System Emergencies referred to in Sections 7.6 and 7.7, respectively." Thus the provisions in Section 7.7.15.1, including proposed Section 7.7.15.1(h), may apply only in those

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DC Energy at 12.

specified circumstances. Section 7.7.15.1(h) also contains the same level of detail as the rest of the Commission-approved provisions in Sections 7.7.15.1(a) through 7.7.15.1(g). There is no reason for the Commission to require more detail as to Section 7.7.15.1(h).

Further, if the ISO ever suspends or limits virtual bidding by all scheduling coordinators pursuant to Section 7.7.15.1(h) – an event that the ISO expects will occur only rarely, if ever – the ISO will be required by Section 7.7.15.4 of its tariff to file a report that "details the frequency and types of actions taken by the CAISO pursuant to this Section 7.7.15, as well as the nature of the specific Market Disruptions that caused the CAISO to take action and the CAISO rationale for taking such actions, or the Market Disruption that was successfully prevented or minimized by the CAISO as a result of taking action pursuant to its authority under Section 7.7.15." Therefore, in the event that the ISO takes action pursuant to Section 7.7.15.1(h), the ISO will provide a fully visible and detailed explanation in its market disruption report.

SWP asserts that, when the ISO identifies misuse of convergence bidding warranting CRR revenue adjustments, suspension from convergence bidding, or similar sanctions, the ISO should also reverse settlements so that the wrongdoer's profits from such activity are disgorged and allocate the proceeds to market participants who were harmed.⁵⁴ In would be inappropriate for the ISO to be subject to these requirements. Disgorgement of profits is a civil remedy that may be available pursuant to a Commission finding that disgorgement is justified

⁵⁴ SWP at 2-4.

on a case-by-case basis.⁵⁵ It is not a remedy that the ISO can enforce.

Therefore, the ISO should not be required to make findings as to disgorgement of profits and the allocation of proceeds resulting from disgorgement.

3. The Commission Has Already Found that the ISO Does Not Need to Employ Bid-In Demand at the Same Time that It Implements Convergence Bidding.

The CPUC reiterates an argument that the Commission rejected in the Convergence Bidding Design Order and should reject again in the instant proceeding. In its comments on the Convergence Bidding Design Filing, the CPUC expressed concern about the ISO's use of the existing local market power mitigation ("LMPM") tool when convergence bidding is implemented. The CPUC argued that the Commission should direct the ISO to instead employ a different LMPM tool proposed by the DMM, called "Option B," which the CPUC stated would be consistent with the directive in a Commission order issued in April 2007 that the ISO must use bid-in demand rather than forecasted demand in the market power mitigation-reliability requirements determination ("MPM-RRD") run within three years of start-up of the ISO's new market. ⁵⁶ In response to these arguments, the Commission stated in the Convergence Bidding Design Order that "[w]e are not persuaded that the implementation of convergence bidding

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See, e.g., Tenaska Marketing Ventures, 126 FERC ¶ 61,040, at P 3 (2009); Noble Energy, Inc., 130 FERC ¶ 61,175, at P 1 (2010).

Motion to Accept Late-Filed Comments and Comments of the California Public Utilities Commission Regarding the California Independent System Operator Corporation's Convergence Bidding Design Policy, Docket No. ER10-300-000, at 2-4 (Dec. 16, 2009) (referencing *California Independent System Operator Corp.*, 119 FERC ¶ 61,076 (2007)) ("April 2007 Order"). The ISO's new market is also sometimes referred to as the Market Redesign and Technology Upgrade or MRTU. The new market went into effect on March 31, 2009 for the day-ahead market for the April 1, 2009 trading day. Therefore, the ISO is not required to use bid-in demand in the MPM-RRD run until April 2012.

requires expediting the timeline for using bid-in demand. . . . Therefore, we will not require the CAISO to begin using bid-in demand simultaneously with the implementation of convergence bidding." Instead, the Commission stated that it "expect[s] the CAISO to comply with the prior Commission directive concerning the use of bid-in demand," *i.e.*, the directive in the April 2007 Order to implement the use of bid-in demand within three years of market start-up.

The CPUC again argues that the ISO should implement Option B at the same time as convergence bidding. The Commission should reject this argument because it has already made its finding on the issue the CPUC raises. The ISO believes Option B should be evaluated as an option for possible future implementation and plans to evaluate possible enhancements to the LMPM process, including Option B, to satisfy the Commission's directive in the April 2007 Order. However, the details of such possible enhancements have not yet been vetted by the ISO and stakeholders. The ISO will initiate a stakeholder process to evaluate possible approaches, and, after opportunity for stakeholder review and comment, the ISO plans to prepare and submit for Commission approval a proposal for timely meeting the requirements of the April 2007 Order. That stakeholder process should not be short-circuited by a premature

Convergence Bidding Design Order at P 86. See also id. at P 77 (summarizing the CPUC's arguments).

⁵⁸ CPUC at 9-11.

Convergence Bidding Design Filing at 21. The ISO's planned evaluation of Option B accords with the Commission's statement that it "continue[s] to encourage the CAISO to expeditiously investigate the merits of an option that utilizes bid-in, rather than forecast, demand. Convergence Bidding Design Order at P 86.

⁶⁰ Convergence Bidding Design Filing Answer at 17-18.

requirement to implement Option B that the Commission expressly rejected in the Convergence Bidding Design Order.

C. There is No Need for the ISO to Submit any Reports on the Use of Megawatt Limits to Ensure an Alternating Current Solution.

NCPA requests that the ISO be required to file monthly reports for the first 12 months after implementation of convergence bidding on the ISO's progress in reaching a consistent alternating current ("AC") solution with virtual bids. NCPA states that these reports should document what percentages of time the ISO is and is not successful in reaching an AC solution without enforcement of nodal MW limit constraints.⁶¹ The Commission should not require the ISO to file such reports. The ISO plans to post sufficient information on its OASIS to provide transparency to market participants. Specifically, the ISO will provide on the OASIS all transmission flowgate constraints with the corresponding shadow costs, and the presence of a non-zero shadow cost will indicate that a particular constraint was triggered due to an issue with the AC solution that could be related to that constraint or other nodal constraints. The provision of this information will allow market participants to identify when nodal constraints were triggered in order to ensure an AC solution from other normal transmission constraints. Further, the ISO plans to summarize and report on the type of information that NCPA requests periodically in the regularly scheduled public meetings of the ISO's Market Performance and Planning Forum.

WPTF proposes that the ISO submit a report to the Commission six months after the implementation of convergence bidding that details the

⁶¹ NCPA at 4-5.

instances in which MW curtailments were triggered in order to ensure an AC solution, the extent of the MW "curtailments," and the market impact of those "curtailments." WPTF's description is inaccurate. There are no "curtailments" and no rejection of bids. As discussed above, the issue is whether the ISO must constrain a location to achieve an AC solution. If a constraint is necessary and binding, all bids will compete economically clear the market. The information provided on OASIS discussed above will provide transparency whenever nodal constraints are binding. The ISO objects to any requirement to provide a market impact analysis on a hypothetical counterfactual market impact.

D. The Commission Should Reject the Financial Marketers' Collateral Attacks on the Commission Directives Approving the ISO's Credit Policy for Convergence Bidding.

In new Section 12.8 of the ISO tariff, the ISO proposes to add tariff language to implement the credit policy for convergence bidding that the Commission approved in the Convergence Bidding Design Order. In response, the Financial Marketers make exactly the same arguments – using the very same wording – that the Financial Marketers made in their protest of the Convergence Bidding Design Filing. Those arguments failed the first time and the Commission should reject them again in the instant proceeding.

The Financial Marketers argue (again) that the ISO should use the 50th percentile value of the historical price difference between the day-ahead and

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⁶² WPTF at 26-27.

See Transmittal Letter for Convergence Bidding Tariff Amendment at 31.

Compare pages 22-26 of the Financial Marketers' protest in the instant proceeding with pages 27-31 of the Financial Marketers' protest of the Convergence Bidding Design Filing.

real-time markets in setting credit policy reference prices, rather than the 95th percentile value contained in the proposed tariff language. The Commission considered and rejected this argument the first time the Financial Marketers made it. In the Convergence Bidding Design Order, the Commission found in response to the Financial Marketers that "the CAISO's proposed credit policy for convergence bidders is reasonable" and that "the CAISO's proposal to use a 95th percentile reference price for determining credit requirements is appropriate."

The Financial Marketers' argument does not improve with age or repetition. By arguing that the ISO should use a 50th percentile value rather than the 95th percentile value the Commission approved for use by the ISO, the Financial Marketers are essentially asserting that the Convergence Bidding Design Order is in error. Therefore, although not styled as such, the Financial Marketers' argument constitutes a request for rehearing of that Order.

Court and Commission precedent clearly state that the Commission is barred by Section 313(a) of the Federal Power Act from considering any request for rehearing that is submitted more than 30 days after the issuance of the order that the request for rehearing concerns. Also, the Commission has stated that it will reject protests on a filing that constitute untimely requests for rehearing of,

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Convergence Bidding Design Order at P 104. See also id. at P 102 (summarizing the Financial Marketers' argument).

See, e.g., Cities of Campbell v. FERC, 770 F.2d 1180, 1183 (D.C. Cir. 1985); Boston Gas Co. v. FERC, 575 F.2d 975, 977-78 (1st Cir. 1978); Alabama Electric Cooperative, Inc., 116 FERC ¶ 61,115 (2006).

and thus collateral attacks on, the underlying order.⁶⁷ In the instant proceeding, the Financial Marketers did not submit a request for rehearing within the required 30 days of the issuance of the Convergence Bidding Design Order. Instead, the Financial Marketers have filed a protest that includes an untimely request for rehearing. Therefore, the Commission should reject the Financial Marketers' argument as a collateral attack on that Order.

For the same reasons, the Commission should also reject the Financial Marketers' word-for-word rehashing of their other arguments regarding the convergence bidding credit policy. The Financial Marketers request once more that the Commission direct the ISO to eliminate what they call the ISO's "90 percent trigger," *i.e.*, the provision in Section 12.4 of the current ISO tariff which provides that the ISO will notify a market participant if at any time its estimated aggregate liability exceeds 90 percent of its aggregate credit limit. In the Convergence Bidding Design Order, the Commission stated that, "[w]ith regard to what the Financial Marketers refer to as the '90 percent trigger,' we note that the CAISO's existing credit requirements contain a similar provision. Thus, we see no reason for removing this provision from the convergence bidding proposal." The Financial Marketers also again request that the Commission direct the ISO to use the lesser of the reference price or the bid price to value virtual demand

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See, e.g., California Independent System Operator Corp., 119 FERC ¶ 61,053, P 13 (2007) ("[T]hese protests should have been raised on rehearing and/or clarification of the January 22 Order, and therefore we reject their requests to alter the CAISO's compliance filing as untimely and a collateral attack on the Commission's January 22 Order"); Southwest Power Pool, Inc., 116 FERC ¶ 61,053, P 102 (2006) ("We find that the comments of the New Mexico Attorney General and Southwest Industrials . . . are untimely requests for rehearing of the SPP Market Order and outside the scope of the instant filing.").

⁶⁸ Convergence Bidding Design Order at P 104.

bids. In the Convergence Bidding Design Order, the Commission found as follows:

[W]e will not direct the CAISO to use the lesser of the reference price and the bid price to value virtual demand bids, as requested by Financial Marketers. For purposes of establishing appropriate credit coverage for convergence bidding transactions, we find that the reference price provides a much better measure of risk exposure.⁶⁹

The Financial Marketers have simply copied and pasted their failed arguments from one protest into another. For the reasons discussed above with regard to the 95th percentile reference price, the Commission should reject the Financial Marketers' repetitive arguments in the instant proceeding as collateral attacks on the directives in the Convergence Bidding Design Order.

E. The Commission Should Accept the ISO's Proposal to Make Virtual Bids Ineligible for Bid Cost Recovery.

DC Energy argues that the ISO's proposal to revise Section 11.8 of the ISO tariff to state that virtual bids will not be eligible for bid cost recovery (except for make-whole compensation due to price correction) is contrary to reasonable compensation mechanisms and not comparable to how physical transactions are treated. DC Energy states that, in stakeholder meetings, the ISO acknowledged the possibility that virtual offers could be paid at a price lower than the offer price, and it is similarly possible that virtual demand could pay at prices greater than the bid price.⁷⁰

⁶⁹ ld.

⁷⁰ DC Energy at 14-15 and Appendix A.

There is no basis to require the ISO should to modify Section 11.8 further. As explained in the Convergence Bidding Tariff Amendment, the ISO believes there is little or no risk that virtual awards would be less than the energy bid cost (and market participants agree that there are no start-up or minimum load bid costs). The ISO will monitor the convergence bidding markets and consider a possible future tariff amendment in the event that market results demonstrate that there is an energy bid cost recovery issue for virtual awards.⁷¹

In the absence of such market results, the ISO should not be required to provide bid cost recovery for virtual bids at this time. Bid cost recovery is a very complex market design element and presents software implementation issues due to the netting features associated with bid cost recovery.

WPTF, on the other hand, does not protest this aspect of the Convergence Bidding Tariff Amendment but requests instead that the ISO be directed to submit a report to the Commission on the bid cost recovery issue six months after the implementation of convergence bidding. Although the ISO believes that it should monitor the bid cost recovery issue and agrees to provide market participants with information. The ISO believes that six months will not necessarily be enough time for the report to reflect meaningful market results. Therefore, the ISO proposes to complete a report on this issue no more than 12 months after convergence bidding is implemented. Further, the ISO believes there is no need to file the report with the Commission. Instead, the ISO will

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Transmittal Letter for Convergence Bidding Tariff Amendment at 33 n.83.

⁷² WPTF at 26.

include it in one of the publicly available market reports that the ISO periodically provides to market participants or to the ISO Governing Board.

F. The Commission Should Accept the ISO's Proposed Allocation of Cost Uplifts to Convergence Bidders.

In the Convergence Bidding Design Order, the Commission required the ISO to include in the Convergence Bidding Tariff Amendment additional support for its proposed allocation of IFM and RUC cost uplifts. The Commission directed the ISO to "consider thoroughly all of the objections raised by intervenors, and either modify its proposal in response to the objections, or explain why no modifications are needed or desirable." Further, the Commission directed the ISO to explain in greater detail how convergence bidding contributes to costs in a way that corresponds to the proposed allocation methodologies. Pursuant to these directives, in the Convergence Bidding Tariff Amendment, the ISO addressed each of the objections raised by intervenors which the Commission did not reject in the Convergence Bidding Design Order; those objections were raised by SCE, PG&E, and the Financial Marketers. The ISO also provided the other detailed explanation regarding the allocation methodologies required by the Order.

While WPTF, J.P. Morgan and DC Energy support the ISO's cost allocation proposal, ⁷⁶ SCE, PG&E, and the Financial Marketers make the same

Convergence Bidding Design Order at P 128.

⁷⁴ *Id.* at P 129.

See Transmittal Letter for Convergence Bidding Tariff Amendment at 38-44; Attachment D to Convergence Bidding Tariff Amendment (Declaration of Margaret Miller) at 10-15.

WPTF at 5-8; J.P. Morgan at 7-8; DC Energy at 4-11.

objections they provided earlier and fail to acknowledge that the ISO has already addressed them. For the reasons discussed in the Convergence Bidding Tariff Amendment, the Commission should accept the ISO's cost allocation proposal and reject the alternative proposals suggested by those parties.

SCE urges the Commission to "reject the CAISO's proposal and instead adopt the proposal initially offered by SCE in its comments filed on December 11, 2009 and reiterated herein."77 SCE goes on to set forth the same arguments it made before.⁷⁸ To support those arguments, SCE provides illustrative examples that are essentially the same as examples that SCE provided in its earlier comments. The ISO explained in its transmittal letter and the Declaration provided by Margaret Miller why SCE's examples are flawed. For example, since virtual supply reduces costs for committing units in the IFM in contrast to virtual demand that may create costs, it makes sense that the ISO evaluate the net effect of virtual bids before applying charges to scheduling coordinators for Tier 1 IFM uplift that have cleared virtual demand bids. The same concept applies to applying charges for Tier 1 RUC Uplift to virtual supply since virtual demand pulls commitment into the IFM, reducing reliance on RUC. It is the net effect of virtual demand and virtual supply that should be considered before applying charges to virtual supply for RUC Uplift Tier 1. SCE's arguments do not take into account the savings in uplift that virtual supply provides to the IFM and virtual demand provides to the RUC process. Nor do SCE's arguments take into account that

SCE at 7.

⁷⁸ *Id.* at 7-19.

the ISO currently applies netting to physical load to determine both IFM and RUC Tier 1 Uplift cost allocation by netting physical demand against self-scheduled generation and that RUC Tier 1 Uplift is allocated to *net* negative load deviations.

DC Energy makes comments similar to the ISO's in the instant proceeding in regard to netting and provides additional comments regarding the application of the threshold tests that provide helpful discussion regarding why SCE's examples are flawed. The ISO agrees with those specific comments provided by DC Energy. An additional comment of DC Energy that the ISO neglected to point out earlier is that the IFM Tier 1 cost allocation methodology that the ISO is proposing avoids allowing physical load to avoid uplift costs simply by underscheduling demand in the IFM. This concern was raised in the stakeholder process and the ISO addressed the concern by using measured demand as the comparison value to demand that cleared the IFM to determine whether or not virtual demand should share in the IFM Tier 1 Uplift costs. Adopting SCE's proposed cost allocation methodology, however, would allow physical demand to avoid IFM Tier 1 uplift costs by withholding load from the day-ahead market.

PG&E contends that "[o]bjections previously raised by SCE and PG&E, which the ISO has not adequately addressed, illustrate why the CAISO's threshold test proposals should be rejected." PG&E's other arguments

DC Energy at 6-11.

PG&E at 12; see also id. at 12-19 (containing the objections previously raised by SCE and PG&E).

regarding the ISO's proposed allocation methodologies reiterate its earlier arguments as well.81

SCE and PG&E at least acknowledge that they are reiterating what they stated previously and do not repeat verbatim assertions that the Commission has already rejected. The same cannot be said of the Financial Marketers. As is the case with their arguments regarding the credit policy for convergence bidding,82 the Financial Marketers make exactly the same arguments, even down to the same wording, in opposition to the ISO's default loss allocation proposal that the Financial Marketers made in their protest of the Convergence Bidding Design Filing. The Financial Marketers' arguments are no more persuasive now than when originally made in that earlier protest.83

The Financial Marketers rehash a number of arguments in their protest that the Commission rejected in the Convergence Bidding Design Order. First, the Financial Marketers argue that the only costs that might lawfully be allocated to virtual transactions are those that would have not been incurred in the absence of convergence bidding.⁸⁴ In response, the Commission stated that:

[W]e do not agree with Financial Marketers that costs should be allocated to convergence bidding based on an estimate of the costs

⁸¹ See PG&E at 19-23.

⁸² See Section I.E of this transmittal letter, above.

⁸³ Inasmuch as the Commission has already rejected these arguments made by the Financial Marketers, the arguments amount to untimely requests for rehearing of, and thus collateral attacks on, directives in the Convergence Bidding Design Order. See the discussion on collateral attack in Section I.E of this transmittal letter, above.

Financial Marketers at 13-14. Compare those pages of the Financial Marketers' protest in the instant proceeding with pages 12-13 of the Financial Marketers' protest of the Convergence Bidding Design Filing.

that would not have been incurred absent convergence bidding, as we do not agree with Financial Marketers that these are the only costs that may be associated with convergence bidding. . . . Indeed, if all market participants were allocated only the costs that would not have been incurred absent their market participation, it is likely that a large pool of costs would remain unallocated.⁸⁵

Further, the Financial Marketers argue that the ISO should be required to defer allocating any uplift to convergence bidding until it completes a cost-of-service study that demonstrates whether, and to what extent, virtual bids reduce uplift costs. In the Convergence Bidding Design Order, the Commission rejected that argument. It stated that "we not expect that it is possible to isolate the impact of virtual bids from the many other factors that affect until commitment and the level of uplift costs." Therefore, the Commission stated that it "will not direct the CAISO to conduct a formal cost-of-service study, as requested by Financial Marketers, to ascertain the overall net impact of virtual transactions on uplift costs."

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⁸⁵ Convergence Bidding Design Order at P 130.

Financial Marketers at 14-16. Compare those pages of the Financial Marketers' protest in the instant proceeding with pages 18-20 of the Financial Marketers' protest of the Convergence Bidding Design Filing.

⁸⁷ Convergence Bidding Design Order at P 133.

Id. Even though the ISO is not required to conduct a formal cost-of-service study, there is reason to believe that virtual transactions may not have a large effect, because uplift costs are only a small portion of the ISO's energy costs. The ISO's total uplift costs for 2009 were \$66 million, which was approximately 1 percent of the total energy costs for that year (\$8.8 billion). DMM Annual Report, Market Issues & Performance for 2009, at page 3.34 (Apr. 2010). This DMM report is available on the ISO's website at http://www.caiso.com/2777/27778a322d0f0.pdf.

The Financial Marketers also argue that the Commission has previously exempted virtual bidders from uplift costs in proceedings involving other ISOs.⁸⁹ In the Convergence Bidding Design Order, however, the Commission "reject[ed] Financial Marketers' claims that the Commission has previously exempted virtual bidders from uplift costs."⁹⁰

Moreover, the Financial Marketers fail to acknowledge that the ISO has responded to the balance of their arguments which the Commission has not expressly rejected. Specifically, the Financial Marketers merely reiterate their previously filed arguments that the ISO's proposed allocation of uplift costs is not supported by cost causation evidence, fails to reflect the savings in uplift costs that would be produced by virtual bids, and fails to reflect the differences between virtual and physical transactions. The ISO responded to those arguments of the Financial Marketers in the Convergence Bidding Tariff Amendment. Amendment.

The CPUC argues that the ISO's proposal to net virtual supply bids and virtual demand bids on a system-wide basis will undermine cost causation. The CPUC requests that the Commission require the ISO to develop a more granular cost allocation methodology that genuinely reflects cost causation going

Financial Marketers at 14. Compare that page of the Financial Marketers' protest in the instant proceeding with pages 18-19 of the Financial Marketers' protest of the Convergence Bidding Design Filing.

⁹⁰ Convergence Bidding Design Order at P 134.

See Financial Marketers at 4, 16-22. Compare those pages of the Financial Marketers' protest in the instant proceeding with pages 6 and 21-27 of the Financial Marketers' protest of the Convergence Bidding Design Filing.

⁹² See Transmittal Letter for Convergence Bidding Tariff Amendment at 42-43.

forward.⁹³ The Commission should reject that request. The CPUC provides no evidence that the ISO's netting proposal will fail to satisfy cost-causation principles. As the Commission explained in the Convergence Bidding Design Order, "cost causation principles are satisfied so long as there is 'an articulable and plausible reason to believe that the benefits are roughly commensurate' with the costs."⁹⁴ The ISO provided that explanation in the Convergence Bidding Tariff Amendment.⁹⁵ In particular, as the ISO noted, the Commission has found that "an allocation based on net virtual offers is just and reasonable" and "an allocation that nets virtual offers and bids may be more precise."⁹⁶

Moreover, the ISO's netting proposal is required for administrative feasibility. Under the ISO's existing market design, bid cost recovery is conducted on a system-wide basis, which is the same basis on which the ISO proposes to conduct netting of virtual bids. If the ISO were to be required to conduct netting on a more granular basis, as the CPUC requests, the ISO would have to redesign its entire bid cost recovery methodology to accommodate that greater granularity. Thus, such a redesign would have to increase the granularity not only of virtual bids but also of physical bids. The ISO should not be required

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⁹³ CPUC at 7-8.

Convergence Bidding Design Order at P 131 (quoting *Illinois Commerce Commission v. FERC*, 576 F.3d 470, 477 (7th Cir. 2009)).

⁹⁵ Transmittal Letter for Convergence Bidding Tariff Amendment at 39-40.

Id. at 40 (quoting Ameren Services Co. v. Midwest Independent Transmission System Operator, Inc., 125 FERC ¶ 61,161, at P 116 (2008)).

to overhaul the existing methodology when simply extending it to include netting of virtual bids on a system-wide basis is administratively feasible.⁹⁷

The ISO accepts its responsibility to assess potential tariff improvements to align cost allocation with cost causation. The ISO has worked very hard to develop a balanced convergence bidding cost allocation proposal and has succeeded in gaining the support of a plurality of market participants.

Unfortunately, entities that represent load and ratepayer interests, on the one hand, maintain that financial market participants do not bear sufficient cost.

While financial market participants, on the other hand, argue that they bear excessive cost risk. The ISO submits that its proposal is just and reasonable and that it cannot reasonably be improved upon without actual market experience.

G. The Commission Should Not Entertain Parties' Comments Regarding the ISO's Release of Convergence Bidding Information.

In the Convergence Bidding Tariff Amendment, the ISO explained that it plans to release two different types of convergence bidding information. First, the ISO proposed to modify Section 6.5.6.1.1 of the ISO tariff to state that the ISO will release virtual bid data on its OASIS (excluding information specific to scheduling coordinators) on the same timeline that applies to physical bids. No party opposes this proposal. Second, the ISO stated that it will release the net cleared quantities of virtual awards at each location at the close of the real-time market for the trading day, and will publish a daily market report that includes a summary of information regarding submitted and cleared physical quantities and

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⁹⁷ Transmittal Letter for Convergence Bidding Tariff Amendment at 39-40.

virtual award. The ISO agreed in the stakeholder process regarding this second type of information release to describe it in the transmittal letter for the Convergence Bidding Tariff Amendment in order to provide the Commission with visibility on the issue. The ISO did not propose any tariff changes to reflect the second type of information release because that information is not confidential and its release is already permitted under the ISO tariff. 98

The CPUC, PG&E, and SCE support the ISO's plans for convergence bidding data release. 99 Other parties, however, argue that the ISO's planned daily release of the net cleared quantities of virtual awards at each location at the close of the real-time market is contrary to the Commission's Order No. 719 regarding the release of bid data and gives an undue advantage to physical participants, whose daily bidding information would not be subject to such release. 100 These parties fail to make the crucial distinction that net cleared quantities of virtual awards *are not* bid data. Rather, the net cleared quantities are simply aggregated quantitative information on the net volume of awards that is comparable to other aggregated, non-confidential information that the ISO is permitted to release, such as load and supply data. Therefore, the ISO information release policy does not violate the requirements of Order No. 719.

Moreover, physical participants cannot gain any undue advantage from the release of the net cleared quantities of virtual awards. Unlike physical bids,

98 *Id.* at 44-45.

⁹⁹ CPUC at 11; PG&E at 7-8; SCE at 3-6.

DC Energy at 13-14; Dynegy at 3; Financial Marketers at 6-9; Financial Marketers at 9-10; J.P. Morgan at 16-19; WPTF at 21-23.

which can only be submitted at the locations of the generators submitting the bids, any scheduling coordinator for a convergence bidding entity can submit virtual bids at any Eligible PNode or Eligible Aggregated PNode. Thus, market participants can never be certain that net cleared quantity of virtual awards submitted at a particular Eligible PNode or Eligible Aggregated PNode were submitted by generators located there. Parties argue that market participants will be able to deduce which generators likely submitted virtual bids at which locations, that would be mere guesswork and would not provide any certainty to market participants. Further, market participants will only have information about the net cleared quantities of virtual awards at each location, meaning that they cannot tell anything about the actual volume of virtual bidding at the location due to the netting of cleared virtual supply against virtual demand.

H. Proposed Correction on Compliance of Errors and Omissions in Filed Tariff Language.

The Convergence Bidding Tariff Amendment contains over 160 pages of clean tariff sheets and black-lines. Given this large volume of pages, it is regrettable but not entirely surprising that they contain a number of inadvertent errors and omissions, which are discussed below. The ISO believes that these errors and omissions – many of which were identified by parties in their

See proposed Section 30.9 of the ISO tariff.

J.P. Morgan at 18; WPTF at 22-23.

comments – should be corrected on compliance with the Commission's order on the pending Convergence Bidding Tariff Amendment.¹⁰³

1. Section 11.2.4.1

As noted by PG&E and SCE, revised Section 11.2.4.1 of the ISO Tariff erroneously includes the term "Virtual Demand Awards" in two instances where the correct term should be "Virtual Supply Awards." The ISO proposes to correct that error by making the following underlined additions and struck-through deletions in Section 11.2.4.1:

For each Settlement Period of the IFM, the CAISO shall calculate the IFM Congestion Charge as the IFM MCC amount for all scheduled Demand and Virtual Demand Awards minus the IFM MCC amount for all scheduled Supply and Virtual Demand-Supply Awards. The IFM MCC amount for all scheduled Demand and Virtual Demand Awards is the sum of the products of the IFM MCC and the total of the MWh of Demand scheduled in the Day-Ahead Schedule and Virtual Demand Awards at all the applicable PNodes, Scheduling Points and Aggregated Pricing Nodes for the Settlement Period. The IFM MCC amount for all scheduled Supply and Virtual DemandSupply Awards is the sum of the products of the IFM MCC and the total of the MWh of Supply scheduled in the Day-Ahead Schedule and the Virtual Supply Awards at all the applicable PNodes and Scheduling Points for the Settlement Period.

2. Section 12.2.4.6(b)

After the Convergence Bidding Tariff Amendment was filed, DC Energy informed the ISO that, in proposed Section 11.2.4.6(b) of the ISO tariff, the word "not" was inadvertently introduced into the sentence that currently reads "A

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To the extent that the Commission finds that it is not appropriate to correct the errors and omissions in a compliance filing, the ISO proposes to correct them in a tariff amendment submitted pursuant to Section 205 of the Federal Power Act.

¹⁰⁴ PG&E at 23-24; SCE at 22.

decrease in the threshold percentage for any Constraint must be based on evidence (from simulations of market re-runs or other appropriate analytical tool) that a Flow Impact less than the current threshold percentage should **not** be expected to have a significant impact on the Constraint's Shadow Price." This error was introduced after stakeholder review of the tariff language in preparation of the filing version of the "black lines." The tariff section should read:

A decrease in the threshold percentage for any Constraint must be based on evidence (from simulations of market re-runs or other appropriate analytical tool) that a Flow Impact less than the current threshold percentage should not be expected to have a significant impact on the Constraint's Shadow Price.

Therefore, removing the word "not" is required to make Section 11.2.4.6(b) conform to the correct tariff language that was developed in the stakeholder process.

3. Section 11.4

Proposed Section 11.32 of the ISO tariff (discussed below in Section I.H of this transmittal letter) sets forth the HASP intertie settlement rule and proposed Section 11.4 sets forth the general HASP settlement rules. The ISO has realized that, for clarity and completeness, Section 11.4 should be modified to include a cross-reference to Section 11.32. Therefore, the ISO proposes to make the following changes to Section 11.4:

The CAISO shall settle both incremental and decremental Energy at the relevant Scheduling Points including Operational Adjustments for all Non-Dynamic System Resources based on the HASP Intertie LMP in accordance with Sections 11.4.1, and 11.4.2, and 11.32.

4. Section 11.8.6.4

Powerex notes that, in the proposed revisions to Section 11.8.6.4 of the ISO tariff, the word "Section" is missing before "11.8.6.3." The ISO proposes to correct that error in its compliance filing as follows:

For Each Trading Hour of the IFM, the hourly Net IFM Bid Cost Uplift is determined as the sum over the Settlement Intervals in that Trading Hour of the product of any positive Net IFM Bid Cost Uplift remaining in the Settlement Interval after the sequential netting in Section 11.8.6.2 and the application of the uplift ratio as determined in Section 11.8.6.3.

5. Section 11.8.6.4.1

PG&E and WPTF note that, in proposed Section 11.8.6.4.1(v) of the ISO tariff, the second occurrence of the phrase "minus net Virtual Demand Awards" needs to be deleted in order to describe the relevant uplift cost allocation formula correctly. 106 The ISO agrees and therefore proposes to delete the following struck-through language:

The IFM system-wide Virtual Demand Award uplift obligation is calculated for each hour in the IFM and is equal to maximum of zero (0) or the following quantity: the total system-wide Virtual Demand Awards from the IFM minus the total system-wide Virtual Supply Awards from the IFM, plus the minimum of zero (0) or the following quantity: the total amount of Scheduled Demand (which excludes Virtual Demand Awards), minus net Virtual Demand Awards minus Measured Demand.

SCE argues that, in addition to the deletion shown above, the ISO should also delete the parenthetical phrase ("which excludes Virtual Demand Awards)." 107 The ISO believes that SCE may be trying to make the same observation as

¹⁰⁵ Powerex at 26.

PG&E at 24; WPTF at 8-9.

¹⁰⁷ SCE at 21.

PG&E. The ISO agrees, as noted above, that the sentence needs to be corrected but that the right way to do this is to delete the phrase "minus net Virtual Demand Awards." Accordingly, the ISO disagrees with SCE's proposed revisions and believes it should not make SCE's suggested change.

6. Section 11.8.6.6

In the Convergence Bidding Tariff Amendment, the ISO proposed to add the following underlined tariff language to Section 11.8.6.6 of the ISO tariff:

For Scheduling Coordinators of MSS Operators that have elected to follow their Load, the RTM Bid Cost Uplift shall be allocated in proportion to their MSS Net Negative Uninstructed Deviation <u>plus any HASP reductions not associated with ETCs [Existing Transmission Contracts], TORs [Transmission Ownership Rights] or Converted Rights.</u>

The purpose of this addition was to integrate any adjustment made as a result of the new proposed HASP intertie settlement rule set forth in Section 11.32. After it filed the Convergence Bidding Tariff Amendment, the ISO determined that it had failed to completely integrate this concept into Section 11.8.6.6. Section 11.8.6.6, should, accordingly, read as follows:

The hourly Net RTM Bid Cost Uplift is computed for the Trading Hour as the product of the uplift ratio in Section 11.8.6.3 and the sum over all Settlement Intervals of the Trading Hour of any positive Net RTM Bid Cost Uplift after the sequential netting in Section 11.8.6.2. The hourly RTM Bid Cost Uplift is allocated to Scheduling Coordinators, including Scheduling Coordinators for MSS Operators that have elected (a) not to follow their Load, and (b) gross Settlement, in proportion to their Measured Demand ETCs, TORs or Converted Rights Self-Schedules in the Day-Ahead Market for the Trading Hour. For Scheduling Coordinators for MSS Operators that have elected (a) not to follow their Load, and (b) net Settlement, the hourly RTM Bid Cost Uplift is allocated in proportion to their MSS Aggregation Net Measured Demand pulsany HASP reductions not associated with valid and balanced ETCs. TORs or

Converted Rights Self-Schedules in the Day-Ahead Market. For Scheduling Coordinators of MSS Operators that have elected to follow their Load, the RTM Bid Cost Uplift shall be allocated in proportion to their MSS Net Negative Uninstructed Deviation plus any HASP reductions not associated with valid and balanced ETCs, TORs or Converted Rights Self-Schedules in the Day-Ahead Market. Accordingly, each Scheduling Coordinator shall be charged an amount equal to its Measured Demand plus any HASP reductions not associated with valid and balanced ETCs, TORs or Converted Rights Self-Schedules in the Day-Ahead Market times the RTM Bid Cost Uplift rate, where the RTM Bid Cost Uplift rate is computed as the Net RTM Bid Cost Uplift amount divided by the sum of Measured Demand across all Scheduling Coordinators for the Trading Hour.

7. Section 11.8.6.5.3.1

As proposed in the Convergence Bidding Tariff Amendment, Section 11.8.6.5.3.1(ii) of the ISO tariff utilizes existing defined term incorrectly. This section needs to be revised as follows:

The RUC Bid Cost Uplift is equal to the lower of (a) the RUC Compensation Cost to meet Measured Demand divided by the sum of each Scheduling Coordinator's Net Negative CAISO Demand Deviation and any positive net system-wide Virtual Supply Awards in that Trading Hour, or (b) the RUC Compensation CostBid Cost Uplift divided by the total RUC Award Capacity, for all Scheduling Coordinators in that Trading Hour.

Further, proposed Section 11.8.6.5.3.1(iv) of the ISO tariff also utilizes existing defined terms incorrectly and therefore needs to be revised as follows:

The <u>portion of the RUC Compensation Costs to meet Measured Demand areis</u> equal to the RUC <u>BidCompensation</u> Cost <u>Uplift</u> minus the excess load share, where the excess load share is equal to the product of (a) the RUC <u>BidCompensation Cost Uplift</u> divided by total RUC Capacity and (b) the maximum of zero (0) or the <u>amount by which excess of the CAISO Forecast of CAISO Demand Forecast over exceeds Measured Demand.</u>

8. Section 11.32

PG&E, Powerex, and SCE correctly note that proposed Section 11.32(ii) of the ISO tariff, concerning the application of measures to address intertie scheduling practices as to export schedules, was included in the fourth (*i.e.*, last) draft of the convergence bidding tariff language that was posted on the ISO website for stakeholder review, ¹⁰⁸ but that Section 11.32(ii) was inadvertently not included in the Convergence Bidding Tariff Amendment. ¹⁰⁹ These parties argue that Section 11.32(ii) should be included in Section 11.32 in the form presented to stakeholders in the last draft of the tariff language, which was as follows:

The CAISO will charge the Scheduling Coordinator the positive difference between the HASP price and the Day-Ahead Market price applicable to any exports that clear the Day-Ahead Market and are reduced in the HASP for which the Scheduling Coordinator has failed to submit an E-Tag or E-Tags consistent with the Scheduling Coordinator's Day-Ahead Schedule and WECC scheduling criteria.

The ISO agrees that this tariff language should be included in Section 11.32, as proposed in the stakeholder process. This same tariff language was also included in the transmittal letter for the Convergence Bidding Tariff Amendment, 110 but the language was not included in the black-lines or clean tariff sheets due to an inadvertent oversight in the preparation of the filing. The tariff language consists of provisions applicable to export schedules that parallel the provisions applicable to import schedules that are already reflected in

¹⁰⁸ See http://www.caiso.com/2795/2795e1f52a910.doc.

PG&E at 24-25; Powerex at 8-10; SCE at 21-22.

¹¹⁰ Transmittal Letter for Convergence Bidding Tariff Amendment at 14.

proposed Section 11.32(i).¹¹¹ Therefore, the ISO proposes to revise Section 11.32 on compliance with the pending order on the Convergence Bidding Tariff Amendment to include the language of Section 11.32(ii) quoted above.

In its compliance filing, the ISO also proposes to modify the last sentence of Section 11.32 as follows for completeness and clarity:

The provisions of this Section 11.32 will not apply to Schedules that clear the Day-Ahead Market at the Interties and that a Scheduling Coordinator wholly or partly reverses in the HASP to the extent such Schedules are <u>valid and</u> balanced ETCSelf-Schedules, balanced-TOR-Self-Schedules, or balanced-Converted Rights Self-Schedules in the Day-Ahead Market.

9. Section 12.8.2

The ISO discovered an inadvertent error in one sentence of proposed Section 12.8.2 of the ISO tariff, which should read as follows:

For Virtual Demand Bids, the Virtual Bid Reference Price will be the 95th percentile value of the difference between the LMP in the Day-Ahead Market and the LMP in the Real-Time Market (or in the HASP for Virtual Supply-Demand Bids at the Interties) at a given Eligible PNode or Eligible Aggregated PNode.

10. Section 12.8.4

SCE notes that proposed Section 12.8.4 of the ISO tariff uses the term "Day-Ahead LPM" in two sentences, which should be corrected to "Day-Dhead LMP."

The ISO proposes to make those corrections in its compliance filing.

As proposed in the Convergence Bidding Tariff Amendment, Section 11.32(i) reads:

⁽i) The CAISO will charge the Scheduling Coordinator the positive difference between the Day-Ahead Market price and the HASP price applicable to any imports that clear the Day-Ahead Market and are reduced in the HASP for which the Scheduling Coordinator has failed to submit an E-Tag or E-Tags consistent with the Scheduling Coordinator's Day-Ahead Schedule and WECC scheduling criteria.

¹¹² SCE at 22.

11. Section 30.10

Powerex notes that proposed Section 30.10 of the ISO tariff contains an incorrect reference to Section 31.9 instead of the correct reference to Section 31.8.¹¹³ The ISO proposes to make that correction on compliance.

12. Section 39.6.1.4

SCE notes that the ISO proposes to modify the definition of the term "Energy Bid" in Appendix A of the ISO tariff to include virtual bids. SCE argues that making this tariff change would result in Section 39.6.1.4 of the ISO tariff permitting virtual bids to be submitted at a price below the bid floor price of negative \$30/MWh and be paid that price upon submission of detailed information justifying the cost components of the bid. SCE explains that throughout the convergence bidding stakeholder process, its understanding was that virtual bids would be restricted to bidding within the price cap and floor levels. Therefore, SCE requests that the Commission require the ISO to revise Section 39.6.1.4 to prohibit virtual bids from being submitted below the bid floor. 114 The ISO shares SCE's understanding that virtual bids would not be eligible to bid below the negative \$30/MWh due to the fact that such bids would never be cost-justifiable. The ISO would have no objection to making this clarification explicit rather than implicit in Section 39.6.1.4 by adding the following sentence:

Virtual Bids may not be less than -\$30MWh.

¹¹³ Powerex at 26.

II. Conclusion

For the reasons explained in the Convergence Bidding Tariff Amendment and in this answer, the Commission should accept the Convergence Bidding Tariff Amendment without modification or condition except for the clarifications discussed herein.

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Dated: August 2, 2010

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 Washington, D.C. this 2nd day of August, 2010.

<u>/s/ Bradley R. Miliauskas</u> Bradley R. Miliauskas