

Various parties have intervened in this matter and filed comments or protests.³ Pursuant to Rules 212 and 213 of the Commission's Rules of Practice and Procedure,⁴ the ISO files this motion for leave to file an answer to the protests filed by WPTF and Dynegy⁵ and files an answer to these protests and comments filed in this proceeding.

II. ANSWER

A. The ISO's proposed scarcity reserve demand curve values for ancillary service sub-regions are set at just and reasonable levels.

In its comments, JP Morgan argues that the ISO's proposed tariff language establishes an inappropriate difference in scarcity premiums as between the ISO's expanded system region and ancillary service sub-regions.⁶

WPTF makes similar arguments in its protest and alleges that the ISO is

³ Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), San Diego Gas & Electric Company (SDG&E), the California Public Utilities Commission (CPUC), the California Department of Water Resources State Water Project (CDWR), J.P. Morgan Ventures Energy Corporation and BE CA LLC (JP Morgan) filed comments. Western Power Trading Forum (WPTF) and various Dynegy entities (Dynegy) filed protests.

⁴ 18 C.F.R. §§ 385.212, 385.213 (2009).

⁵ Answers to protests are generally not permitted. See 18 C.F.R. § 385.213(a)(2). The Commission has accepted answers that are otherwise not permitted if such answers clarify the issues in dispute, *Southwest Power Pool, Inc.*, 89 FERC ¶61,284 at 61,888 (2000); *Eagan Hub Partners, L.P.*, 73 FERC ¶ 61,334 at 61,929 (1995), or assist the Commission, *El Paso Electric Co.*, 72 FERC ¶ 61,292 at 62,256 (1995). The ISO respectfully requests waiver of the Commission's Rules of Practice and Procedure prohibiting answers to protests pursuant to 18 C.F.R. § 385.101(e). Good cause exists for the waiver. The ISO's answer will assist the Commission in resolving the issues in this proceeding. Accordingly, the Commission should permit the ISO to file this answer.

⁶ The ISO's "expanded system region" is defined as the ISO System Region and Inertie Scheduling Points with interconnected Balancing Authority Areas. For purposes of its scarcity pricing proposal, ancillary service sub-regions consist of the ISO System Region and the eight sub-regions identified in tariff section 8.3.3.

“discounting” scarcity pricing at the sub-regional level.⁷ The ISO strongly disagrees with the arguments of JP Morgan and WPTF. These arguments reflect a misunderstanding of Commission directives and applicable reliability standards. JP Morgan and WPTF provide no evidence to counter the ISO’s showing that the proposed scarcity reserve demand curve values provide sufficient economic signals to obtain reserves in an ancillary service sub-region during a shortage.

The ISO has proposed different demand curve values for a shortage condition in an ancillary service sub-region and in the ISO expanded system region that reflect different reliability concerns. JP Morgan contends that this approach “is antithetical to the design of a location marginal pricing-based market.”⁸ JP Morgan’s comments ignore the fact that locational marginal prices for energy on the ISO system include transmission losses and congestion costs. The ISO’s approach to pricing ancillary services differs from the ISO’s approach to establishing locational marginal prices for energy. Transmission losses and congestion costs do not apply to the ancillary service market clearing prices. The ISO’s demand curve values provide “a reserve shortage scarcity pricing mechanism that applies administratively-determined graduated prices to various levels of reserve shortage.”⁹ Based on the Commission’s specific direction, the scarcity reserve demand curve values are not based on the value of a marginal resource at a specific location. Nevertheless, the ISO’s scarcity pricing design

⁷ As part of its motion to intervene, Dynegy adopts WPTF’s protest. In contrast to Dynegy, other parties filed comments supporting the ISO’s proposed scarcity demand curve values as just and reasonable. (See, Comments of PG&E, SCE and the CPUC.)

⁸ Comments of JP Morgan at pp. 6-9.

⁹ September 2006 Order, 116 FERC ¶ 61,274 at P 1079.

does reflect the location of resources providing ancillary services. When there is a scarcity condition in an ancillary service sub-region, the ancillary service market clearing prices in the sub-region will be higher than those in the expanded system region.

JP Morgan also recommends that the Commission provide the ISO with authority to modify scarcity premiums in order to avoid a reliability problem.¹⁰ This proposal, however, is beyond the scope of the Commission's scarcity pricing directive.

WPTF asserts that occurrence of a reserve shortage in an ISO ancillary service sub-region constitutes a violation of North American Electric Reliability Corporation reliability standard TOP-002-2 and therefore the ISO should pay a scarcity premium for a shortage in an ancillary service sub-region that is comparable to the scarcity premium in the ISO expanded system region.¹¹ NERC reliability standard TOP-002-2 entitled *Normal Operation Planning* addresses requirements to plan for reliable operations, including response for unplanned events.¹² The ISO plans to meet reserve requirements consistent with this reliability standard, including planning for the deliverability of any reserves. A violation of NERC reliability standard TOP-002-2 arises from a failure to plan to meet operational requirements and not from the occurrence of

¹⁰ Comments of JP Morgan at pp. 9-10.

¹¹ Comments of WPTF at pp. 4-5.

¹² <http://www.nerc.com/files/TOP-002-2.pdf>

scarcity event. That is, the fact that a shortage condition may arise in an ISO ancillary service sub-region does not violate this reliability standard.

In contrast, WECC reliability standard BAL-002-WECC-1 entitled *Contingency Reserves* requires the ISO to procure a specific level of spinning and non-spinning reserves for the ISO's expanded system region.¹³ WECC reliability standard BAL-002-WECC-1 does not, however, require the procurement of reserves in specific ISO ancillary service sub-regions. Nor does it require the procurement of reserves at any specific premium.

WPTF insists that contingences such as the loss of a major transmission line may not allow the ISO to deliver adequate reserves in an ancillary service sub-region.¹⁴ But WPTF fails to explain why increased scarcity premiums will ensure resources respond during a contingency condition, such as losing a major transmission line. First, the occurrence of such a contingency may not result in a shortage condition and therefore no scarcity premium will apply. Second, if accepted, WPTF's arguments support higher ISO reserve requirements in ancillary service sub-regions rather than higher scarcity premiums. Under tariff section 8.3.3, the ISO already has the authority to procure additional ancillary services in specific sub-regions, as necessary to ensure reliable system operations.

The comments of JP Morgan and protest of WPTF provide no evidence that demonstrates the need to increase the proposed scarcity demand curve

¹³ http://www.nerc.com/files/BAL-002-WECC-1_Final.pdf

¹⁴ Comments of WPTF at pp. 5-6.

values for an ancillary service sub-region. Moreover, the ISO's proposed scarcity pricing design does not "discount" scarcity premiums at the sub-regional level. To the contrary, the proposed scarcity demand reserve values for the ancillary service sub-regions create significant premiums for non-spinning reserve, spinning reserve, and regulation service when there is insufficient supply. During the first year of implementation, if a scarcity condition arises in an ancillary service sub-region, premiums for non-spinning reserve, spinning reserve, and regulation could immediately rise to as high as \$188, \$263, and \$338 above the market clearing prices of non-spinning, spinning, and regulation in the expanded system region, respectively.¹⁵ During the second year of implementation, these premiums could rise to \$250, \$350, and \$450 above the market clearing prices in the expanded system region, respectively.¹⁶ When a scarcity condition exists across both the expanded system region and the ancillary service sub-region, ancillary service scarcity premiums in the sub-region can rise beyond the maximum energy bid price.¹⁷ Based on the ISO's review of bid data that predates its new markets, these premiums should be sufficient to encourage resources to respond to a reserve shortage.¹⁸ Absent evidence to the contrary, the Commission should approve the proposed scarcity reserve demand curve values as just and reasonable. The ISO has committed to review the performance its scarcity pricing design once it is implemented. If facts

¹⁵ ISO transmittal letter dated December 23, 2009, Table 1 at p. 6.

¹⁶ *Id.*

¹⁷ ISO tariff section 39.6.1.1.

¹⁸ ISO transmittal letter dated December 23, 2009 at 6.

demonstrate the need for higher demand curve values for ancillary service sub-regions, the ISO will propose them for the Commission's review and approval.

B. The ISO's proposal allows for annual review of the scarcity pricing design, if necessary.

Several parties argue that the ISO should conduct an annual review of its scarcity pricing design on the grounds that scarcity pricing is a new program.¹⁹

These arguments overlook the fact that the ISO has proposed tariff language that would allow it to undertake an annual review of its scarcity pricing design, if necessary. But given the fact that scarcity conditions should occur rarely, an annual review of scarcity pricing design may not lead to any meaningful conclusions. The Commission should accept the ISO's proposed tariff language, which states:

The CAISO shall review the performance of the Scarcity Reserve Demand Curves and assess whether changes are necessary every three (3) years or more frequently, if the CAISO determines more frequent reviews are appropriate.²⁰

This language allows sufficient flexibility to conduct an annual or even more frequent review of the ISO's scarcity pricing design. The ISO will conduct a review if there are scarcity events that require such a review or if ISO stakeholders express a collective desire for such a review through existing stakeholder processes or through requests to the ISO's Market Surveillance

¹⁹ Protest of WPTF at p. 9; Comments of JP Morgan at pp. 10-11; Comments of CDWR at pp. 1-13. WPTF recommends an annual review for the first three years of scarcity pricing. JP Morgan recommends an annual review for the first year of implementation. CDWR recommends an annual review if a scarcity condition occurs over the course of the year.

²⁰ Proposed tariff section 27.1.2.3.

Committee or Department of Market Monitoring. The ISO has already committed to issue a notice to market participants whenever a scarcity event occurs.²¹ As a result, WPTF members, JP Morgan, and CDWR will receive information about scarcity conditions when they occur. In light of these facts, there is no need for the Commission to direct the ISO to undertake an annual review of its scarcity pricing design simply for the sake of conducting a review.

C. The Commission has accepted the ISO's proposal to allocate ancillary services cost on a system-wide basis.

In their comments, both the CPUC and CDWR raise concerns about the allocation of ancillary service costs associated with a scarcity condition. They argue that the Commission should require the allocation of scarcity premiums in an ancillary service sub-region to the ancillary service sub-region that created those costs.²² CDWR also argues that the Commission should allocate the cost of regulation down to generators during periods of over-generation.²³ The ISO's final scarcity pricing proposal stated that, based on the Commission's orders, the ISO would not propose to modify the current cost allocation of ancillary service

²¹ ISO transmittal letter dated December 23, 2009 at p. 10; see *a/so* proposed language for the Market Operation Business Practice Manual at Section 4.5.4. Proposed language for the Market Operation Business Practice Manual is available at the following website <https://bpm.caiso.com/bpm/prr/list>

²² Comments of CPUC at pp. 4-5; Comments of CDWR at pp. 8-9.

²³ Comments of CDWR at p. 10.

procurement.²⁴ The ISO stated it would examine this issue in future reviews of its scarcity pricing design.

As part of its orders in proceedings examining the ISO's new market design, the Commission addressed similar arguments by CDWR as recently as June 2008.²⁵ In its *June 2008 Compliance Order*, the Commission unequivocally rejected CDWR's argument to allocate the cost of ancillary services on a sub-regional basis. The Commission stated:

We deny State Water Project's request to allocate the procurement of ancillary services on a sub-regional basis, as the Commission has already addressed this concern in our prior orders in this proceeding. We reiterate here that the CAISO's procurement of ancillary services supports the use of the entire CAISO control area and, therefore, it is appropriate to allocate the costs associated with this procurement to all load in the CAISO control area. We note that regional limits on ancillary service self-provision will be enforced to prevent possible cost allocation distortions. This means that lower cost regions will not be subsidizing higher cost regions by allowing transactions that are not physically possible, given the transmission constraint. *[Footnotes omitted.]*²⁶

The Commission's rationale that the ISO's procurement of ancillary services supports the use of the entire control area extends to CDWR's argument that the ISO should allocate the costs of regulation down to generators in over-generation conditions. CDWR asserts over-generation is a problem that generators

²⁴ ISO Final Proposal Reserve Scarcity Pricing Design dated November 4, 2009 at pp. 14-15. A copy of the Final Proposal is available on the ISO website at: <http://www.aiso.com/245c/245cd04327ae0.pdf>

²⁵ *Calif. Indep. Sys. Operator Corp.*, 123 FERC ¶ 61,285 (2008) ("*June 2008 Compliance Order*") at P 46, citing *Calif. Indep. Sys. Operator Corp* 119 FERC ¶ 61,076 at P 91 and September 2006 Order, 116 FERC ¶ 61,274 at P 325

²⁶ *Id.*

themselves have caused. The ISO questions CDWR's premise that over-generation conditions necessarily reflect a problem created by generators. Over-generation conditions often result from seasonal hydro-electric production as well as to respond to ISO demand as it ramps up and down. Moreover, procurement of regulation down helps maintain frequency within the entire ISO system. As reflected in the ISO's proposed scarcity pricing design, it is appropriate to allocate the costs associated with this procurement to all ISO demand. The Commission should reject the CPUC's and CDWR's arguments in connection with the ISO's current proposal.

D. The Commission should not direct the ISO to undertake additional studies at this time.

In its comments, SDG&E asks that the Commission direct the ISO to study loss-of-load probabilities and value of lost load as well as whether the proposed scarcity demand curve values reflect the reliability cost of relaxing operating constraints as suggested by the ISO's Market Surveillance Committee (MSC). The ISO's proposed scarcity pricing design fully complies with the Commission's directives to develop a scarcity pricing design that applies administratively-determined graduated prices to various levels of reserve shortage. The ISO's proposal is consistent with the scarcity pricing design of the New York ISO and ISO New England. In addition, the ISO's proposal is consistent with the directives of Order No. 719.²⁷ The Commission did not previously direct the ISO

²⁷ *Wholesale Competition in Regions with Organized Electric Markets*, FERC Stats. & Regs. ¶ 31,281 (2008) at P 247.

to support its scarcity pricing design with the types of studies referred to by the MSC and that SDG&E is requesting. The Commission should not do so now. The MSC itself recognized that “making these calculations is extremely difficult and very time consuming. Loss of load probabilities are dynamic and location-specific and depend on many aspects of real-time system conditions.”²⁸ As a practical matter, the types of studies SDG&E is requesting will involve a considerable amount of time, effort and expense. ISO stakeholders should have the opportunity to discuss and prioritize the use of ISO resources required to conduct this work in advance of any Commission directive or authorization to undertake this effort. The ISO believes that such a study would only be warranted after significant experience is gained under actual operations and then, only if the ISO experiences frequent scarcity events.

E. The ISO is planning market enhancements to provide participating load with greater flexibility.

In its comments, CDWR argues that under the ISO's scarcity pricing design, demand should have the ability to submit bids in the hour-ahead scheduling process and real-time market. CDWR's comments do not oppose the ISO's scarcity pricing design so much as register a complaint about the ISO's current markets approved by the Commission, which do not allow scheduling coordinators to submit bids for ISO demand in either the hour ahead scheduling process or real-time market.²⁹ As such, CDWR's comments are beyond the

²⁸ MSC Final Opinion on Reserve Scarcity Pricing Design dated December 2, 2009 at p. 4. <http://www.caiso.com/2480/2480aa113a6b2.pdf>

²⁹ ISO tariff section 33.1.

scope of the ISO's current proposal. CDWR is aware that the ISO is planning market enhancements to allow its participating load greater flexibility. For the time being, CDWR may submit bids for its participating load certified to provide non-spinning reserve into the ISO's real-time market. CDWR may also subscribe to the ISO's proxy demand resource product when it is available, which will allow for greater participation in the real-time market.

F. The ISO's proposed tariff revisions provide sufficient information concerning its scarcity reserve demand curve values and the calculation of ancillary services marginal prices.

In its comments, CDWR recommends that the ISO incorporate additional information into its proposed tariff provisions related to scarcity pricing. The ISO proposed tariff provisions adequately describe the terms and conditions of scarcity pricing and allow market participants to calculate a scarcity price for particular ancillary service during a shortage. The Commission should reject CDWR's recommendation and not require unnecessary detail in the ISO's tariff and which is already available to market participants through appropriate documentation.

The ISO's proposed tariff provisions implementing scarcity pricing describe how to determine an ancillary service marginal price based on the value of the shadow price for a particular ancillary service and all other ancillary services for which that ancillary service can substitute.³⁰ The ISO has also specified the scarcity reserve demand curve tiers and scarcity reserve demand

³⁰ Proposed tariff section 27.1.2.1.

curve values for each type of ancillary service subject to its proposal.³¹ The tariff contains all of the information necessary to determine a scarcity premium.³²

Moreover, the ISO intends to publish in its Business Practice Manual the information CDWR seeks (i.e. a table reflecting the tariff provision descriptions for scarcity pricing as well as pricing examples that reflect formulas to determine ancillary service marginal prices under scarcity pricing).³³ CDWR suggests that information published in a Business Practice Manual diminishes the accessibility of that information, but CDWR fails to explain this argument. To the extent CDWR or other market participants require assistance in understanding how the ISO calculated ancillary service marginal prices in connection with a scarcity event, the ISO is willing to provide any necessary support and assistance to those entities. This information, however, does not belong in a tariff.

³¹ Proposed tariff section 27.1.2.3.

³² See *California Independent System Operator Corp.*, 122 FERC ¶ 61,271 (2008) at P 16, which provides:

It is appropriate for Business Practice Manuals to contain implementation details, such as instructions, guidelines, examples and charts, which guide internal operations and inform market participants of how the CAISO conducts its operations under the MRTU tariff. Whether provisions included in the Business Practice Manuals must be filed under section 205 of the Federal Power Act (FPA) and made part of the CAISO's MRTU tariff is determined through the "rule of reason," which discerns those provisions significantly affecting rates, terms and conditions of service, which therefore must be filed for Commission approval. The Commission's policy, as implemented through the rule of reason, is that only those practices that significantly affect rates, terms and conditions fall within the directive of section 205(c) of the FPA. [Footnotes omitted.]

³³ ISO transmittal letter dated December 23, 2009 at p. 6; see *also* proposed language for the Market Operation Business Practice Manual at Sections 4.5.1 through 4.5.4 Proposed language for the Market Operation Business Practice Manual is available at the following website <https://bpm.caiso.com/bpm/prr/list>

III. CONCLUSION

The ISO's proposed tariff amendments to implement scarcity reserve pricing comply with the Commission's directives and are just and reasonable. The Commission should approve the proposed tariff amendments without modification.

Respectfully submitted,

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Dated: January 29, 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 captioned 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, California this 29th day of January 2010.

/s/ Jane Ostapovich
Jane Ostapovich