UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

California Independent System Operator Corporation	)	**Docket No. ER12-205-000**

MOTION FOR LEAVE TO ANSWER PROTESTS AND ANSWER TO PROTESTS AND COMMENTS OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

The California Independent System Operator Corporation ("CAISO") hereby submits this motion for leave to answer protests and answer to the protests and comments filed in this proceeding regarding actions the CAISO undertook to manage the major outage event that occurred on September 8-9, 2011. Although commenters urge the CAISO to undertake a "lessons learned" effort to result in a tariff amendment with clearer authority to handle emergencies on the scale of the September 8-9 event, these parties accept the CAISO's actions as reasonably appropriate under the circumstances. Protests from financial market participants, on the other hand, reflect a general misunderstanding of both the factual issues and the difference between administrative pricing and price correction under the ISO tariff. As discussed below, the protests lack merit and the Commission should reject them.

I. BACKGROUND

On October 26, 2011, the CAISO filed a petition requesting a waiver of two tariff provisions ("Petition"), but only to the extent that the Commission concluded that the CAISO had acted beyond its tariff authority in connection with an emergency event in southern California on September 8 and 9, 2011. First, CAISO requested waiver of section 7.7.4(3) of its tariff in connection with its decision to establish administrative prices at $250 per megawatt hour and then lower the price to $100 per megawatt hour. Second, CAISO sought waiver of section 11.5.2 in connection with its decision to hold harmless certain generation, imports, exports and load resources that were forced to trip due to the event.

The chronology of the system emergency, which constituted the largest load-shedding event in the western interconnection since 1996, and of the CAISO's actions in response to the emergency are set forth in detail in the Petition and the accompanying declarations of Ms. Deborah A. Le Vine and Mr. Mark A. Rothleder.

In the filing, the CAISO explained that it believed that its establishment of administrative prices was consistent with the CAISO tariff provisions for addressing system emergencies and ensuring reliability and also necessary to manage and minimize the extent of the emergency and to help restore service to tripped load as soon as possible. It also argued that, if the Commission concludes that the CAISO's response was inconsistent with the tariff provisions, there is good cause for a waiver because the CAISO's actions were taken in a good faith belief that they were consistent with the CAISO tariff and necessary to restore system operations.

The CAISO also stated its belief that generation and load resources in the San Diego area that were forced to trip during the system emergency experienced a *force majeure* event and should therefore be held harmless in connection with their failure to deliver or consume in accordance with their day-ahead schedules. It further stated that, if the Commission finds that this conclusion is inconsistent with the CAISO tariff, there is good cause for a waiver because the requested waiver is of limited scope, has no undesirable consequences, and results in evident benefits to customers.

Comments were due November 16, 2011. Twelve parties intervened. Seven parties filed substantive comments, four of which expressed general support for the CAISO's actions (except for a limited protest in one) and three of which protested those actions.[1] The CAISO does not object to any of the interventions.

II. MOTION TO FILE ANSWER

Rule 213(a) (2) of the Commission's Rules of Practice and Procedures generally prohibits answers to protests.[2] The Commission has accepted answers that are otherwise prohibited if such answers clarify the issues in dispute[3] and where the information assists the Commission in making a decision.[4]

As discussed below, some protestors fundamentally misstate or misunderstand the nature of the system emergency, the relevant CAISO tariff provisions, and the CAISO's responses. This answer will provide a more complete explanation of those issues and, thus, both clarify the issues and assist the Commission's understanding of Protestors' errors. The ISO therefore requests that the Commission accept this answer.

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1 The following filed protests or comments: California Department of State Water Resources State Water Project ("SWP"); El Segundo Power, LLC; Cabrillo Power I, LLC; Cabrillo Power II, LLC; and Long Beach Generation, LLC ("NRG Companies"); Macquarie Energy LLC ("Macquarie"); Morgan Stanley Capital Group ("MSCG"); Powerex Corp. ("Powerex"); SESCO Enterprises, LLC and XO Energy, LP ("Financial Marketers"); and Western Power Trading Forum ("WPTF"). The following filed motions to intervene without substantive comments: Imperial Immigration District; Dynegy Moss Landing, LLC; Dynegy Morro Bay, LLC; Dynegy Oakland, LLC and Dynegy Marketing and Trade, LLC; City of Santa Clara, CA and M-S-R Public Power Agency; Modesto Irrigation District; and JP Morgan Ventures Energy Corporation and BE CA, LLC.

2 18 C.F.R. § 385.213(a) (2) (2010).

3 *See Southwest Power Pool, Inc.,* 89 FERC ¶ 61,284 at 61,888 (1999).

4 See El Paso Electric Co., et al. v. Southwestern Pub. Serv. Co., 72 FERC ¶ 61,292 at 62,256 (1995).

III. ANSWER

As an initial matter, it is important to recognize the CAISO's actions to address the system emergency have not been met with opposition from participants in the physical market, with the exception of a limited protest by NRG, which may well be resolved through the dispute resolution process. It is noteworthy that a broad variety of market participants--SWP, NRG, WPTF, and Powerex—indicate general support. The CAISO agrees with comments made by these parties that a stakeholder process is necessary to develop clearer tariff authority for how the CAISO should handle major emergencies and the settlement consequences.

With the exception of NRG's limited protest, the protesters are all financial market participants. As discussed below, their specific protests are unfounded, and many are beyond the scope of this proceeding. The CAISO recognizes, however, that its actions did have an impact on virtual bidders. As purely financial market participants, they were neither the beneficiaries of the maintained service, like the load that was not dropped, nor the subjects of the outage, like the load that was dropped. The CAISO's administrative pricing decisions were made solely for the purpose of establishing price signals for physical resources with the unintended result of creating financial consequences—both gains and losses—to financial market participants that were totally unforeseeable at the time these market participants took their financial positions in the day-ahead market. As discussed below, the CAISO therefore, as part of the upcoming stakeholder process, will urge consideration of a tariff revision to neutralize convergence bidding transactions in the event of market suspension. Moreover, as noted above, the CAISO would be amenable to a Commission order directing the

CAISO to hold financial market participants harmless by zeroing out all positions during the period of the September 8 and 9 market suspension.

The CAISO notes that MSCG and Financial Marketers contend that the CAISO's establishment of the $250 and $100 per megawatt-hour administrative prices violates the CAISO tariff.[5] The CAISO has presented its position regarding the tariff authority for its actions in the request for a waiver and will not repeat them here.[6] The CAISO filed the request for a waiver, however, specifically in case the Commission disagreed with the CAISO's position. Thus, the CAISO has filed this tariff waiver request seeking Commission approval in the event it concludes that the CAISO's actions were not authorized under existing tariff authority.

A. Financial Market Participants Err in Arguing that the CAISO's Market Software Was Producing Accurate Prices During the System Emergency.

In its Petition, the CAISO explained that, following the loss of generation and load in the San Diego area, the CAISO market software began to produce anomalous pricing, with very high prices for the San Diego area and much lower prices elsewhere in the state. Financial Marketers, MSCG, and Macquarie dispute the statement that these prices were anomalous. MSCG, for example, states, "It is not apparent whether CAISO's software generated incorrect solutions for hours ending 17 and 18. Load certainly remained available in the San Diego area. The extreme prices cited do not

5 MSCG at 6; Financial Marketers at 5-6.

6 The CAISO does note, however, that Financial Marketers mischaracterize or misunderstand the CAISO's position in at least one, and possibly two, manners. First, contrary to their implication, (Financial Marketers at 7), the CAISO has not argued that section 35 of the CAISO tariff provides authority for its actions. The CAISO only cited section 35 in discussing its price correction of hours ending 1700 and 1800, which, as discussed in section III.G infra, is not the subject of the Petition. Second, to the extent Financial Marketers imply that the CAISO finds authority for its action in section 42.1.5 of the CAISO tariff, they are incorrect. The CAISO suggested only that the authority in section 42.1.5 is helpful in interpreting the CAISO authority under section 7.7.2.

appear inconsistent with known load and supply situations."[7] Financial Marketers assert:

> Many actual market factors led to a legitimate price increase. This was one of the hottest days of the year and significant transmission work was being conducted on the system. One of the largest nuclear units in the CAISO system, Diablo Canyon 01, was down for an unplanned outage . . . . the North Gila-Hassayampa lines remained out of service for several days . . . . The event also coincided with the highest forecasted loads and second highest actual loads of the year in southern California. . . . [A] substantial amount of evidence points to the fact that actual market conditions led to the increase in prices, while the petition does not provide any rationale for its assertion that the model was producing erroneous results.[8]

These contentions are simply contrary to the facts. As explained in the declarations of Ms. Le Vine and Mr. Rothleder, there was no load to be served in the San Diego area. The load in that area was not connected to the remainder of the balancing authority area, and there was no generation that could reach that load, no matter how much the price increased. Moreover, prices immediately preceding the outage event, as evidenced by the $54 price in the San Diego, indicate ample supply to meet demand condition and there is nothing to suggest that the scarcity of resources in any way caused the outage.

On the other hand, there was still demand in the remainder of the balancing authority area to be served and fewer available resources available to serve it after the San Diego area was islanded. As Mr. Rothleder explained, the available generation necessary to serve the load was priced at approximately $54 per megawatt-hour just prior to the system emergency. Subsequently the generation should have been able to command at least that price but, as shown by Exhibit 1A, the prices for the remainder of

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[7] MSCG at 9. *See also* MSCG at 5, 11.

[8] Financial Marketers at 14-15. *See also* Financial Marketers at 9.

the balancing authority fluctuated wildly, frequently venturing well into negative territory. Low prices at or below the $54 price prevailing prior to the outage, particularly negative prices, would quite obviously be erroneous under the changed market conditions in areas where load was connected.

Moreover, contrary to Financial Marketers' assertion, Mr. Rothleder did explain the reason for the erroneous market results. As set forth in his declaration, the model was receiving inconsistent network topology information, which indicated that stations inside the San Diego area were disconnected or islanded off from the rest of the CAISO network while at the same time indicating (erroneously) that generation and load resources that had physically tripped remained connected. The CAISO market system is configured to recognize small islands of load and generation and to disconnect such islands so that they do not affect the rest of the solution. However, the island-recognition feature was not configured to detect an island condition the size of the San Diego Gas & Electric Company system, and, as shown in Exhibit 1A, it produced results that were more consistent (if it could be said they were consistent with anything) with the existence of a large amount of load to be served in the San Diego area, not with "actual market conditions," *i.e.,* the absence of any load that could be served due to the fact that the load was physically disconnected.[9] Hence, the price spikes observed in the San Diego were entirely erroneous: there was no load to be served in the San Diego area and resources in that area were also unavailable.

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9 Rothleder declaration at ¶ 8.

B. The CAISO's Decision to Suspend the Market and Set an Administrative Price Is Supported by the Evidence.

MSCG contends that the evidence does not support the CAISO's decision to intervene in the market and that the Commission should require the CAISO to disclose all the analysis and available information it used to support its conclusion that reliance on exceptional dispatch and day-ahead schedules was not sufficient.[10] The CAISO's decision to intervene in and suspend the market, however, is not the subject of the Petition. Section 7.7.4 of the CAISO tariff explicitly authorizes suspension of the market and use of administrative prices in the event of a major system collapse. The Petition addresses only the establishment of the $250 and $100 administrative prices and the determination that tripped load and generation were subject to *force majeure.* If MSCG believes that the CAISO exceeded its authority in intervening in the market, MSCG should file a complaint.[11]

Moreover, MSCG's argument is unfounded. Contrary to MSCG's contention, the CAISO had fully supported its decision-making in the declaration of Ms. Le Vine. As she explained, the CAISO could not rely solely on day-ahead schedules because not all generators have a day-ahead schedule. In addition, demand and supply conditions differ between the day-ahead and real-time markets. For these resources, the CAISO needed to send a price signal to keep the resources available. In addition, while the

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[10] MSCG at 5.

[11] Similarly, Financial Marketers complain that the CAISO states that it followed Operating Procedure 1710, but does not state that it followed that provision's requirement that it take the steps required by OP 4420, Section 3.1, Step 4 prior to declaring system emergency. Financial Marketers are apparently relying on the version of Operating Procedure 1710 that that the CAISO put in place after the September 8-9 outage. The applicable version of the procedure, which was attached to the Petition, sets forth the same preconditions for setting an administrative price as are contained in section 7.7.4(2) of the CAISO tariff. If Financial Marketers believe that the CAISO did not follow these procedures, its remedy is to file a complaint. Nevertheless, the CAISO followed tariff section 7.7.4 to the extent practicable in light of the events—sudden loss of a large area and major software failure.

CAISO used exceptional dispatch, the fact that there are over 1,500 generating units in the CAISO balancing authority area made verbally dispatching units impracticable and extremely inefficient. There are over 100 scheduling coordinators that would need to be called and then, in a number of cases where the scheduling coordinator does not own or directly control the generating unit, the scheduling coordinator would need to contact the unit to direct the unit to move either up or down.[12]

To the extent that MSCG, by requesting disclosure of "all the analysis and available information," believes that the CAISO's filed explanation is insufficient, MSCG fails to understand the reality of real-time operation of the grid during a system emergency. Over 4000 MW of generation had tripped in the balancing authority area in a matter of a few minutes and almost three million customers had lost service across the southwest. The grid operators needed to make decisions immediately, drawing upon their extensive experience and engineering judgment along with information that was immediately apparent. They did not have the luxury of time in which to conduct studies and analyze those studies. The results validate the decisions made: the CAISO was able to contain the outage and to restore the system within 12 hours.

C. The CAISO's Decisions to Establish $250 and $100 Administrative Prices Are Supported by the Evidence.

Financial Marketers argue that the CAISO has provided no rationale for its conclusion that the last interval price would not provide an incentive for sufficient generation capacity to remain online or for its determination that a $250 (and later $100)

[12] Le Vine Declaration at ¶ 12.

administrative price was necessary.[13] As discussed above, the grid operators need to make a decision in real-time and acted by applying their experience and engineering judgment to the information available, including such factors as the amount of generation that would be needed, real-time bids, and their general knowledge of generator operating costs.[14] As Mr. Rothleder explains, subsequent analysis of bid data demonstrates that the selected price was reasonable with a sufficient margin for safety appropriate under the circumstances.[15]

In the event that the Commission finds that the CAISO exceeded its authority by establishing the $250 and $100 administrative prices and denies a waiver, the CAISO will resettle the markets for the suspension period using the administrative price specified in section 7.7.4(3), *i.e.,* the price for the last valid interval: hour ending 1600, interval 10. There are no valid arguments under the ISO tariff for other alternatives. Macquarie's argument that if the Commission does not apply the $250 and $100 prices to all intervals, including hours ending 1700 and 1800, then the Commission should require the CAISO to re-run the market with "the best available data" and adopt "the administrative price for all intervals in a manner consistent with prevalent system conditions"[16] is not supported by the tariff and is simply not feasible. After hour ending 1800 the CAISO suspended the market under section 7.7.4; that provision does not

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[13] Financial Marketers at 5, 7-8.

[14] Le Vine Declaration at ¶ 17; Rothleder declaration at ¶ 10.

[15] Rothleder declaration at ¶ 12. Financial Markets also contend that knowing the causes of this event is important to determine whether or not CAISO's actions were reasonable. Financial Marketers at 11. The CAISO noted in the Petition that the causes of the outage have no bearing on the justification for the CAISO's market actions taken in response to the outage. Financial Marketers present no reason to conclude otherwise, but merely assert that it is so. Financial Marketers specifically contend that knowing the cause is important to determining whether the outage was a *force majeure* event. They fail to understand the distinction between whether the outage was caused by a *force majeure* event – *i.e.*, whether the CAISO or San Diego Gas & Electric Company could have avoided the outage through good utility practice –and whether the outage was itself a *force majeure* event

[16] Macquarie at 10.

provide for re-running the market. Moreover, due to the scope of issues concerning the inputs into the CAISO market software during the event, it would not be possible for the CAISO to generate reasonably accurate data to rerun the market in a manner that would achieve a realistic solution for hours ending 1700 and 1800, let alone for the entire suspension period. Financial Marketers' suggestion that the Commission should develop prices that "treat all parties in a just, reasonable and not unduly discriminatory manner," such as by "using the prices from the prior day for each parallel hour,"[17] is also not an available option under section 7.7.4 or any other section of the tariff; it would indeed be retroactive ratemaking.

D. The Outage Is Properly Characterized as a Force Majeure Event.

Financial Marketers contend that the Commission does not have enough information to know whether the outage event, which tripped generation throughout southern California, was a *force majeure* event under the CAISO tariff and that physical system malfunction is not akin to war, riots or storms.[18] There is nothing in the CAISO tariff, however, that suggests that a *force majeure* event must be akin to such matters. The CAISO tariff definition refers to such matters as labor disturbances and certain curtailments, orders, regulations, and restrictions, none of which is related to war, riots, or storms, and is not limited. The tariff definition of "uncontrollable force" includes *any* cause beyond the control of a market participant that cannot be avoided by the exercise of good utility practice. It is not necessary to know the cause of the outage in order to recognize that generators and load in the San Diego area could not control the outage

[17] Financial Marketers at 15.

[18] Financial Marketers at 12-13.

and could not have avoided being tripped or dropped by the exercise of good utility practice.

Financial Marketers also contend that knowing the cause of the outage is important to determining whether the outage was a *force majeure* event.[19] They fail to understand the distinction between whether the outage was caused by a *force majeure* event – *i.e.,* whether the CAISO or San Diego Gas & Electric Company could have avoided the outage through good utility practice –and whether the outage was itself a *force majeure* event as it operated on generators and demands. While knowing the cause of the outage is relevant to the former determination, the outage's impact on generation and load is the same regardless of the cause.[20]

Financial Marketers go on to contend that "it is clear" that the market anticipated a shortage of power and transmission capacity around the time of the interruption and therefore difficult to see how CAISO could legitimately argue that this event was an "occurrence of uncontrollable force." According to Financial Marketers several factors pointed to the fact that this would be a high congestion, tight supply day, but Financial Marketers do not explain how the likelihood of a high congestion, tight supply day would provide market participants with notice that events would render them unable to perform their day-ahead obligations or would have allowed them to avoid that inability. Moreover, conditions immediately preceding the outage including the market price of $54 suggest otherwise; namely that that there was ample supply to meet demand

[19] Financial Marketers at 12.

[20] Financial Markets also more generally contend that knowing the causes of this event is important to determine whether or not CAISO's actions were a reasonable. Financial Marketers at 11. The CAISO noted in the Petition that the causes of the outage have no bearing on the justification for the CAISO's market actions taken in response to the outage. Financial Marketers present no reason to conclude otherwise, but merely assert that it is so.

during this time period and no reason to expect sudden scarcity, even though the $54 was a price higher than normal due to the higher than average temperature.

While NRG and WPTF support the CAISO's determination that tripped generation and dropped load in the San Diego area were subject to a *force majeure*, both recommend tariff revisions specifically codifying this type of determination.[21] This is an appropriate matter to be considered in the stakeholder process that, as noted in the Petition, the CAISO will initiate to address issues raised by the outage event. Specifically, the CAISO anticipates that the process will address the appropriate scope of such determinations—an issue raised by NRG—and the issues similar to those raised by WPTF: (1) the criteria used to determine when a market failure that justified a market suspension has occurred, in particular when to determine when the default administrative price should be changed from the price produced in the settlement period immediately preceding the market failure[22] (2) how special administrative prices are to be set across the region (e.g. whether northern and southern California prices should be the same when such an event occurs in San Diego); (3) how intertie and virtual transactions are treated in addition to how internal generating resources are treated; and (4) the remedy if an administrative price causes a settlement inconsistent with the participant's bid price.

E. The CAISO's Application of the Force Majeure Tariff Provisions Is Not Discriminatory.

Financial Marketers protest that the CAISO's decision to hold harmless the tripped generation and load in the San Diego area is unduly discriminatory because it

[21] NRG at 5-6, WPTF at 4-5.

[22] The CAISO notes that under the CAISO Tariff, the last available price is the default administrative price.

treats these resources differently from convergence bidders.[23] While not protesting, WPTF observes that that CAISO has proposed that treatment vary across market participant types (e.g. holding harmless San Diego participants, but not elsewhere).[24]

The CAISO's proposal does not impermissibly discriminate because the market participants that the CAISO proposes to hold harmless are not similarly situated to the remainder of the market participants. Due to the outage, the generation and load in the San Diego area were unable to perform their day-ahead obligations at no fault of their own. Physical resources elsewhere were fully able to fulfill their obligations and, to the extent that they did, incurred no financial loss in connection with their day-ahead obligations.

Financial market participants do not even have an obligation to perform, so they cannot be deemed similarly situated to generation and load in the San Diego area. Nonetheless, the CAISO recognizes that the market suspension and setting of administrative prices had an impact on financial market participants—in some cases increasing profits and in some cases reducing them—that was totally unforeseen when these market participants took their positions in the day-ahead market. As financial market participants, they did not enjoy the same benefit—continued service—from the CAISO's decisions as did load outside the San Diego area; nor did financial market participants provide any benefit as the value of convergence bidding depends on functioning markets. The impact of the market failure of this magnitude was to randomly create winners and losers. In these circumstances, financial market

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23 Financial Marketers at 10. Financial Marketers also argue that CAISO's remedy not only eliminates actual, real-time constraints but also flattens day-ahead price constraints, both actions serving to discriminate against convergence bidders while protecting other market participants from adverse financial effects. *Id.*

24 WPTF at 3-4.

participants should neither gain nor lose. Therefore, the CAISO would be amenable to a Commission order directing the CAISO to hold financial market participants harmless by zeroing out all positions during the period of the market suspension.

F. The CAISO Has Met the Standard for a Waiver.

Some protesters assert that the CAISO has not met the standard for a waiver. Financial Marketers contend that it is questionable whether the event was an emergency and that the Petition is not clearly limited because it applies to the entire California market, even though only certain portions of southern California were affected, and because the adjustment in price was severe.[25] As to the first point, it defies credulity to argue that the largest outage in the Western Interconnection since 1996 is not a system emergency. The argument that the request is not clearly limited is only slightly more credible. The waiver request involves less than twelve hours.

Financial Marketers argue that the CAISO has not met the standards for a waiver because its actions would have undesirable consequences. Financial Marketers contend that a waiver would create long-term market uncertainty that could decrease participation by virtual bidders and damage overall market health.[26] Macquarie points out that the Commission rejects requests for waiver that have undesirable consequences, such as harming third parties, and that risk creating undesirable financial consequences.[27] Macquarie's arguments in this regard, however, are focused primarily on the period before the suspension, regarding which the CAISO has not

[25] Financial Marketers at 15-16.

[26] Financial Marketers at 16.

[27] Macquarie at 5.

sought a waiver. As discussed below, issues concerning those hours are beyond the scope of this proceeding.

It is important to note that no party has suggested that the CAISO's proposal to hold tripped generation and load harmless has any undesirable effects. With regard to the establishment of the $250 and $100 administrative prices, if the CAISO had applied last best price, as provided in section 7.7.4(3), there would have been much lower prices and likely lower gains for convergence bidders. Some financial market participants are better off under the $250/$100 scenario than under the last best price scenario.

The CAISO recognizes that financial markets are not designed to rationally accommodate such emergency actions as market suspension and administrative pricing. Therefore, as part of the upcoming stakeholder process, the CAISO will urge consideration of a tariff revision to neutralize convergence bidding transactions in the event of market suspension. Moreover, as noted above, the CAISO would be amenable to a Commission order directing the CAISO to hold financial market participants harmless by zeroing out all positions during the period of the September 8 and 9 market suspension.

G. All Physical Market Participants that Responded to CAISO Dispatch Instructions Will Be Made Whole.

Powerex states that the Commission should direct CAISO to explore tariff modifications to provide bid cost recovery to imports and exports during emergencies because it is unfair to ask participants to incur substantial losses when they are providing physical assistance to the CAISO.[28] NRG states that, although the $250 and

[28] Powerex at 5.

$100 per megawatt-hour prices were necessary to encourage the levels of supply needed to restore the system following blackout, setting prices while restricting market participants' ability to respond is a frustrating solution. It urges the Commission to direct the CAISO to propose administrative intertie prices that properly reward market participants for taking other actions, including exporting power, which aided CAISO in restoring the system. WPTF states that the CAISO's assertion that its actions did not have undesirable consequences only considers a subset of the transactions affected by its decision to set administrative prices. It presents as an example that a party exporting in northern California may be paying many times its bid price to procure energy based on the CAISO's proposed administrative price, but CAISO has not proposed to hold these parties harmless.[29]

Under the settlement procedures that the CAISO is employing, which it believes are consistent with the CAISO tariff, intertie resources that received verbal exceptional dispatch instructions will get exceptional dispatch settlement, imports that following their HASP schedules will be eligible for bid cost recovery. In addition, exports will be made whole to their bid costs to the extent prices were different from the published prices. To the extent that the CAISO may have incorrectly settled any transaction in a manner inconsistent with these principles, the CAISO is confident the errors will be corrected through the dispute resolution process.

H. Protests Regarding the CAISO's Actions Prior to the Suspension of the Market Are Beyond the Scope of the Proceeding and Without Merit.

Financial Marketers, Macquarie, and MSCG protest the CAISO's settlement of hours ending 1700 and 1800 on September 8, 2011, prior to the CAISO's suspension of

[29] WPTF at 3-4.

the market effective at 6:00 p.m. on that date. The CAISO, however, has not requested a tariff waiver in connection with its settlement of hours ending 1700 and 1800 because it does not believe that there is any issue whether its decisions in that regard were consistent with the CAISO tariff. Protests concerning hours ending 1700 and 1800 are therefore beyond the scope of this proceeding. If Financial Markets, Macquarie or MSCG believe that the CAISO settlement of hours was contrary to the CAISO tariff, their remedy is to file a complaint.

Moreover, the protests regarding hours ending 1700 and 1800—even if within the scope of this proceeding—would be without merit. As an initial matter, some protesters fail to understand the fundamental difference between price correction and market intervention. Financial Marketers assert:

> [At] 4:00 p.m. the CAISO decided to apply the administrative price . . . in its tariff without any explanation as to why the actual market results were erroneous. . . . [T]he CAISO then revised the administrative price at 6:00 p.m. to $250, nearly five times the initial administrative price . . . . [A]t 10:00 p.m. the CAISO revised the administrative price from $250 to $100. The Petition provides no rationale for the change in prices . . . and . . . no explanation or justification for arbitrarily treating the initial two hour interval differently from the other hours of the emergency period.[30]

This assertion ignores both the chronology set forth in Ms. Le Vine's declaration and the relevant tariff provisions. The CAISO did not decide at 4:00 p.m. to apply an administrative price. The CAISO had not decided to intervene in and suspend the market at that time and therefore had no authority under section 7.7.4 to set an administrative price on a prospective basis. The prices that the CAISO is using for

[30] Financial Marketers at 9. Financial Marketers also argue that companies that responded to market signals during the first two hours of the declared emergency were greatly harmed by the decision to treat them differently. *Id.* The CAISO notes that the only entities complaining about the CAISO price correction for hours ending 1700 and 1800 are financial market participants, which do not participate in the real-time market and cannot respond to price signals.

hours ending 1700 and 1800 are established after-the-fact, under the authority of section sections 7.7.15.1 and 35 of the CAISO tariff. During hours ending 1700 and 1800, the CAISO was trying to take whatever action it could to prevent the need to intervene and suspend the market. Nevertheless, market disruptions occurred during this period as a result of software failures. Market disruptions caused by software failures trigger administrative pricing under ISO tariff section 7.7.15.1(f).[31] This kind of market disruption occurs with some frequency and all market disruptions are reported to the Commission on the 15th of each month in docket ER06-615. The CAISO utilized its price correction authority for hours ending 1700 and 1800 as well for those intervals not subject to a market disruption and used the same last best price in accordance with Section 35. Only starting at 6:00 p.m. did the CAISO invoke the authority of section 7.7.4 to suspend the market and set an administrative price.

Financial Marketers demonstrate a similar lack of understanding when they contend that the CAISO improperly relies on section 35 for authority to establish the administrative price.[32] Although Section 35 is relevant for hour ending 1700 and 1800, it is irrelevant to the market suspension period, and the CAISO made no argument in its Petition to the contrary.[33]

Macquarie further contends that the CAISO has failed to follow the procedures of the Business Practice Manual sections 8.1.5.1, 8.1.5.2 and 8.1.5.4, and that under these provisions the CAISO should rerun the market for the pre-suspension period if it

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31 *See* Petition at n.2.

32 Financial Marketers at 7.

33 In connection with this misplaced argument, Financial Marketers also contend that the CAISO has not shown that prices were inaccurate or inconsistent as required by section 35. As discussed above, the declarations of Ms. Le Vine and Mr. Rothleder provide precisely that showing.

does not apply the $250 and $100 administrative prices.[34] These sections provide the price correction methods in order of preference and, as noted above, would only apply to hours ending 1700 and 1800 to the extent the CAISO did not have market disruptions during this period where administrative pricing applies When price correction does apply, the priorities are as follows. First, when possible, the CAISO will selectively recalculate invalid nodal prices, such that market optimization need not rerun. Second, the CAISO will re-run the market. If these two methodologies are not feasible or are not practical, the CAISO will use replicated prices. Contrary to Macquarie's argument, the CAISO's actions were fully consistent with these provisions. Because of the number of nodal prices affected by the event during hours ending 1700 and 1800, isolated price corrections for all of them were not reasonably feasible. In addition, as noted above, due to the scope of issues concerning the inputs into the CAISO market software during the event, it was not feasible for the CAISO to generate reasonably accurate data to rerun the market in a manner that would achieve a realistic solution for hours ending 1700 and 1800. As a result, consistent with section 8.1.5.4 of the Business Practice Manual, the CAISO used replicated prices—the locational marginal price from the last interval prior to the market dysfunction (hour ending 1600, interval 10)—for the price correction during the period prior to the suspension.[35]

Accordingly, the CAISO is using the same price—the price for hour ending 1600, interval 10—for both administrative pricing and price correction purposes during the pre-suspension period.

[34] Macquarie at 7-8.

[35] MSCG asserts that the CAISO has not shown that these prices are "correct." As noted above, if MSCG believes that the CAISO incorrectly exercised its price correction authority, the appropriate procedure is for MSCG to file a complaint.

MSCG argues that the CAISO's settlement of hours ending 1700 and 1800 using the administrative price is impermissible retroactive ratemaking. The CAISO was following its tariff concerning how to set the administrative price during hours ending 1700 and 1800 and, therefore, there is not impermissible retroactive ratemaking. Retroactive rate adjustments, however, are not impermissible if parties had adequate notice. "Notice to affected parties . . . changes what would be purely retroactive ratemaking into a functionally prospective process by placing the relevant audience on notice at the outset that the rates being promulgated are provisional only and subject to later revision."[36] Sections 7.7.15.1and 35.4 of the CAISO tariff provide that notice.

A number of parties contend that CAISO should apply the same price to the intervals before and after the market suspension. Financial Marketers state that the CAISO's contention that the $250 price was needed to provide an incentive to generation is equally applicable to the hours ending 1700 and 1800.[37] Macquarie contends that the Commission should either (1) apply the administrative price of $250 to hours ending 1700 and 1800 on September 8, 2011, or (2) as noted above, resettle the market consistent with the CAISO's tariff by using data best representative of prevailing system conditions and applying the resulting administrative price for intervals before and after market suspension.[38] It argues that the same conditions and reliability needs existed before and after the market suspension, and that a uniform price is therefore required.[39] It further argues that the CAISO, while holding tripped generation and load

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[37] Financial Marketers at 9.

[38] Macquarie at 5. The impossibility of implementing Macquarie's second alternative is discussed above.

[39] *Id.* at 7.

harmless during the suspension period, ignores the harm sustained by other market participants in the CAISO markets, such as the convergence bidding market, who were harmed during hours ending 1700 and 1800 due to CAISO's resettlement, and that there is no reason to treat these intervals differently than the market suspension intervals.[40]

MSCG argues that for hours ending 1700 and 1800, the CAISO should revert to actual market prices and, if possible, should do the same for the market suspension hours as well. Alternatively, MSCG contends that the CAISO should be required to at least apply the same $250 per megawatt price to hours ending 1700 and 1800 that it used for the first Market Suspension hour.[41]

These arguments reflect the same failure to understand the difference between market suspension and the application of the tariff to hours ending 1700 and 1800 and the fact that the last best price is the default administrative price and one of the options under ISO tariff section 35 for price correction. For the suspension period, as explained by Ms. Le Vine and Mr. Rothleder, the CAISO published the $250 and $100 administrative price in order to provide an incentive for sufficient generation to remain online in order to serve the remaining demand and restore the system. Prior to 6:00 p.m., the CAISO had not determined that it would be necessary to suspend the market and it is impossible to provide an incentive by paying a higher price retroactively. Generation cannot now go back and modify decisions made for hours ending 1700 and 1800. Moreover, MSCG's argument that the CAISO should apply the actual market

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[40] *Id*. at 8. See also *id*. at 10.

[41] MSCG at 11.

prices ignores the fact – as discussed above – that these prices were a function of software limitations and simply wrong.

Macquarie again demonstrates its failure to distinguish price correction and market suspension when it asserts:

> CAISO's contention that its use of price replication and the resulting administrative prices are reflective of conditions necessary to bring the system to restoration is flawed because it fails to adequately appreciate the scarcity value of energy under constrained outage conditions . . . . Even CAISO's Department of Market Monitoring (DMM) recognizes that CAISO's existing tariff provisions . . . "were not effective in achieving the desired operational outcomes."[42]

The CAISO has not argued that price replication and the resulting administrative prices reflect system restoration conditions; that would be illogical because after-the-fact price correction cannot help restore the system. Further, the outage was not caused by scarcity; the evidence showed extremely high prices where there was neither load nor resources. In addition, the CAISO's Department of Market Monitoring made no such "recognition." The Quarterly Market Issues and Performance report cited by Macquarie specifically stated that it was not reviewing operational issues.[43] The Department of Market Monitoring simply suggested that the CAISO's process for setting administrative prices should be further reviewed and potentially refined in the tariff to better prescribe in advance how prices should be settled during a market suspension.[44] As discussed below, this is precisely what the CAISO intends to do.

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42 Macquarie at 10, citing Q3 Report on Market Issues and Performance at 5.

43 Q3 Report on Market Issues and Performance (November 2011) at 40, available at http://www.caiso.com/Documents/QuarterlyReport-MarketIssues_Performance-November2011.pdf.

44 *Id.* at 5.

I. The CAISO Agrees that It Should Take Steps to Improve Communications Regarding Market Prices During System Emergencies.

A number of parties argue that the CAISO must improve transparency and communications regarding market prices during system emergencies. Although the CAISO believes that some of these arguments are misplaced, the CAISO agrees that, as part of the stakeholder process on issues arising from the outage, it should examine steps that can be taken to improve communications regarding market prices during system emergencies.

Macquarie contends that the CAISO's failure to notify participants that published prices during hours ending 1700 and 1800 was erroneous, and, along with the CAISO's decision not to use an administrative price reflective of system conditions, will harm Macquarie and other participants.[45] With regard to the second point, the CAISO explains above why the prices used for hours ending 1700 and 1800 are dictated by the CAISO tariff. As to the first point, Macquarie could not have been harmed by any lack of information regarding the validity of real-time markets. Financial marketers such as Macquarie participate only in the day-ahead market. Convergence bids clear in the day-ahead market; they are only liquidated in the hour-ahead scheduling process and the real-time market. CRRs settle only in the day-ahead market. Moreover, all prices are subject to the price validation and correction process set forth in Section 35.

MSCG states that the CAISO failed to provide the market with clear and consistent price signals, because although CAISO announced its $250 per megawatt-hour price, its automated dispatch system was still working and sending instructions.

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[45] Macquarie at 10-11. *See also id.* at 7-8 (arguing that the price of hours ending 1700 and 1800 price causes unwarranted financial harm to participants who relied on prices that continued to be published even after the emergency began.)

Although there may have been some confusion on the part of financial participants such as MSCG, the CAISO did use its emergency messaging system to notify all scheduling coordinators with physical supply not to respond to the automated dispatch system. The CAISO agrees, however, that the concerns raised by Macquarie and MSCG are matters that should be examined in the stakeholder process.[46] Nevertheless, the fact that financial market participants might have been confused does not change their positions. Once the day-ahead market closes, financial market participants' positions are fixed.

Powerex indicates confusion regarding the extent to which dispatches were mandatory or voluntary and the applicable dispatch price.[47] WPTF comments that the CAISO should address its communications and transparency during emergency situations and that it needs to create clearer communication channels or establish standing default tariff provisions that inform participants about which set of information received during such events is valid.[48] The CAISO agrees with these observations and intends to focus on these matters during the stakeholder process.

IV. CONCLUSION

For the reasons explained above, the Commission should grant the requested waivers, to the extent that the Commission concludes that the CAISO acted beyond its tariff authority.

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[46] As one example, the CAISO notes that its Department of Market Monitoring has reviewed some tapes and observed that CAISO operators had trouble contacting some scheduling coordinators for generators as electricity-dependent telephone systems failed and cell towers went down or were overloaded. The department recommends requiring market participants to have satellite phones.

[47] Powerex at 4-5.

[48] WPTF at 5.

Respectfully submitted,

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Dated: December 1, 2011

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each party listed on the official service list for these proceedings, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2010).

Executed at Washington, D.C. on this 1st day of December, 2011.

/s/ Michael E. Ward
Michael E. Ward