

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

**California Independent System            )       Docket No. ER11-3856-000  
Operator Corporation                    )**

**MOTION TO FILE AN ANSWER AND ANSWER TO PROTEST AND COMMENTS  
OF THE  
CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION**

Pursuant to Rule 213 of the Federal Energy Regulatory Commission's (Commission) Rules of Practice and Procedure, 18 C.F.R. § 385.213 (2010), the California Independent System Operator Corporation (ISO) hereby files an answer to comments submitted by Pacific Gas & Electric (PG&E) to the ISO's June 23, 2011 filing in the above-captioned docket. Pursuant to Rule 212 of the Commission's rules, 18 C.F.R. § 385.212 (2010), the ISO also files a motion to file an answer and answer to the limited protest filed by NRG Companies to the ISO's June 23, 2011 filing.

None of the intervenors, not even NRG or PG&E, outright object to the proposed tariff amendments or the need immediately to address the issues identified in the June 22, 2011 filing. NRG and PG&E expressed concerns that certain aspects of the proposed rules may be inappropriately broad, and may penalize normal, non-gaming market behavior. However, neither party raises any material issue posed by the proposed amendment that would warrant conditioning the acceptance of the proposed changes on the outcome of a stakeholder process.

The ISO urges the Commission not to condition the ISO's proposed tariff changes on the outcome of a stakeholder process and accept the proposed changes to be immediately effective as of June 22, 2011. Situations such as this, where the ISO has identified a market rule that has been seen to be abused by market participants, warrant immediate action by the ISO and the Commission, to ensure that the ISO market does not continue to be exposed to such exploitative behavior. As demonstrated in its June 22, 2011 filing, the ISO has given this matter very careful consideration in the time permitted, to fashion narrowly tailored rules changes to address the specific exploitative market behavior, and that limit any unintended adverse impact to the market. The ISO reiterates its commitment to launching a stakeholder review process within 90 -120 days following the Commission's order in this proceeding, which it previously committed to conduct following the Commission's May 4 Order in Docket No. ER11-3149. The ISO requests that the Commission accept without modification all of its proposed rule changes and allow the parties address any unintended consequences in the upcoming stakeholder process.

## **I. BACKGROUND**

The ISO launched its new locational marginal price (LMP)-based markets on April 1, 2009. On March 18, 2011, the ISO submitted a filing to amend its tariff to halt a specific bidding practice which was resulting in significant BCR overpayments under the existing rules. On May 4, the Commission accepted the proposed tariff changes. However, following this initial filing, the ISO Department of Market Monitoring (DMM) noted other bidding irregularities that were resulting in similar

overpayments to market participants. The ISO filed its proposed tariff amendments on June 23, 2011 to address three specific issues.

The first issue involves bidding energy in the day-ahead market at or near the  $-\$30/\text{MWh}$  bid floor to ensure unit commitment, while registering minimum load costs at the maximum allowed under the registered cost option (200% of proxy costs). When coupled with energy bids above the LMP in the real-time market, this practice results in dispatch below the day-ahead schedule and corresponding bid cost recovery payments for the difference between the day-ahead commitment and the real-time commitment. The March 25 filing partially corrected this problem, but as the June 23 filing indicates, certain resources have continued to utilize bidding methods that circumvent the revised tariff rules.

The second issue involves inter-day ramping. Certain units have bid their energy at very low negative prices late in the trading day (hours 20-24), and then at high prices at or near the  $\$1,000$  bid cap in the early hours of the following trade day. This results in the unit being scheduled at a very high level in the late hours of one trade day, and then down to its minimum load level during the early hours of the next trading day. Because the unit must ramp down gradually to its minimum operating level, the unit then recovers bid costs at the higher bid price submitted for the early hours of the trade day during its ramp-down period. This issue could be exploited in the intra-day market as well, absent the Commission's acceptance of the proposed tariff amendments.

Finally, the bidding practices identified above allow for the exercise of market power when exceptional dispatches are needed to access stranded capacity scheduled for ancillary services and residual unit commitments (RUC). The ISO

must procure adequate spinning and operating reserves as ancillary services to ensure system reliability, and units can be designated to provide both ancillary services and energy. However, both the ancillary services award for operating reserves and the energy bid have an associated reserve ramp rate. If the ancillary services ramp rate is higher than the energy ramp rate for a generator at the level at which it is scheduled in the market, then the ISO may need to use exceptional dispatch – and make corresponding payments – to ensure that this ancillary service capacity is actually available. When coupled with the bidding practice identified above (low bids in the day-ahead market and high bids in real-time reducing the scheduled energy), the ISO may need to mitigate exceptional dispatches in such circumstances to ensure adequate ancillary services for system reliability without allowing the exercise of market power. The same issues may arise with regard to residual unit capacity.

In the June 23 filing, the ISO proposed narrowly tailored changes to its tariff which would eliminate the incentives for these bidding practices. The proposed change to tariff section 11.8.2.1.5 would eliminate the metered energy adjustment factor for negative energy bids. Essentially, this would resolve the overpayment issue for units with high minimum load costs and negative bids in the day-ahead market by eliminating negative bids from the calculation of delivered energy. Except for the negative bids submitted by resources engaging in the bidding practices described above, all other negative bids in ISO markets have come from renewable energy resources, such as wind, hydroelectric and geothermal facilities. Since these resources have little control over the conditions impacting energy production, they sometimes offer their output at negative prices in the day-ahead

and real-time markets. Because these resources ultimately deliver energy scheduled as the result of negative bids in the day-ahead market and therefore do not receive BCR payments, these changes will not adversely impact legitimate reasons which renewable resources may have for submitting negative bid prices.

The proposed change to 11.8.2.4 would eliminate the incentive for ramping cost recovery between trading days. This change would require the ISO to identify the bid cost surplus or shortage across an entire ramp-down period, even one that spanned from the end of one trading day to the start of the next. This would eliminate the identified problem of ramp rates across trading days being able to obtain overpayment.

Finally, the proposed change to section 39.10 would permit the ISO to mitigate exceptional dispatches in order to access ancillary service awards or RUCs in the real-time market. This will allow the ISO to maintain overall system reliability while ensuring that no market participant can exercise market power for ancillary services or RUCs. Additionally, the ISO also proposed changes to software in its June 23 filing.

## **II. MOTION TO FILE AN ANSWER**

The ISO recognizes that, unless authorized by the Commission, the Commission's Rules of Practice and Procedure preclude an answer to protests. Accordingly, pursuant to Rules 212 of the Commission's Rules of Practice and Procedure, 18 C.F.R. §§ 385.212 (2011), the ISO respectfully requests leave to file its answer to the protests filed in this proceeding. The ISO submits that good cause for the requested motion exists because this 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 ensure a complete and accurate record in the case.<sup>1</sup> The answer will also assist the Commission by clarifying the reasons that the ISO seeks to apply mitigation exceptional dispatch settlement rules to all exceptional dispatches needed to access stranded ancillary services awards and residual unit commitments.

For these reasons, the ISO respectfully requests that the Commission accept the ISO's answer.

### **III. ANSWER**

On July 13, 2011, four parties filed interventions and comments in support of the ISO's proposed tariff amendments. PG&E filed an intervention and comments favoring the amendments but critical of the stakeholder process and requesting the consideration of a narrower modification of tariff section 11.8.2.4. NRG filed an intervention and protested the ISO's stakeholder process and the proposed exceptional dispatch rules. Five parties filed simple motions to intervene, without any comments. The ISO submits this answer to NRG and PG&E's comments.

#### **A. The ISO Reiterates its Commitment to a Stakeholder Process, and Disposition of this Matter Should not be Conditioned on the Outcome of that Process**

Both PG&E and NRG object to the absence of a stakeholder process to date. PG&E requests that the ISO initiate a stakeholder process to review the bid cost recovery tariff changes as soon as possible. In reply, the ISO reiterates its

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<sup>1</sup> 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); Entergy Services, Inc., 101 FERC ¶ 61,289, at 62,163 (2002); Duke Energy Corp., 100 FERC ¶ 61,251, at 61,886 (2002); Delmarva Power & Light Co., 93 FERC ¶ 61,098, at 61,259 (2000).

commitment to conduct a stakeholder review of the proposed changes, as set forth in the ISO's March 18 filing<sup>2</sup> and accepted in the Commission's May 4 order.<sup>3</sup>

PG&E also states that the instant filing demonstrates a fundamental flaw with the overall bid cost recovery model and strongly encourages the ISO to use the investigation of these exploits as a starting point for a redesign of the current BCR process. While the ISO recognizes the need to immediately address the market issues identified in the instant filing, there is no evidence of a fatal fundamental flaw with the bid cost recovery process. Rather, the process has been proven to provide appropriate and adequate compensation for resources and provides a mechanism for attributing those costs to specific market activities and allocating related costs in a just and reasonable manner. Other than the issues exploited by market participants in the instant proceeding and in Docket No. ER11-3149, there have been no fundamental issues with the bid cost recovery process. PG&E fails to raise any in its comments because there are none.

The ISO further notes that the ISO is currently engaged in two substantial stakeholder processes designed to address the integration of substantial amounts of new variable resources on the ISO grid: Renewables Intergration Market Product Review Phase 1 & 2.<sup>4</sup> In both of these efforts, the ISO is evaluating numerous aspects of its market design, including bid cost recovery, to ensure that its markets continue to provide adequate compensation and proper signals to resources. More specifically, in Phase 1, the ISO is looking directly at needed modifications to the

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<sup>2</sup> ISO March 18, 2011 Filing, p.2-3.

<sup>3</sup> *Cal. Indep. Sys. Operator Corp.*, 135 FERC ¶ 61,110 (2011) at P 8.

<sup>4</sup> See

<http://www.caiso.com/informed/Pages/StakeholderProcesses/IntegrationRenewableResources.aspx>

current rule that requires netting of bid cost recovery payments across the various ISO markets. This became necessary as the ISO considered changes to its current bid floor to encourage decremental bids that the ISO can manage economically through its market optimization rather than through the management of self-schedules. In Phase 2, the ISO is looking to adopt more substantial market enhancements aimed to address many of the currently identified market design issues that would pose a significant challenge as variable energy resources penetrate the ISO market in greater volumes. In the context of these market design changes, the ISO will continue to consider enhancements to its bid cost recovery process that will necessarily fall out of market rule changes adopted. PG&E and NRG, along with other stakeholders, should participate in the ongoing stakeholder processes to ensure that any enhancements it perceives as necessary are adopted. To start a lengthy stakeholder process to consider a complete overhaul of the bid cost recovery in the current market, when there is no evidence of any major fundamental flaw with the current design, would be a complete waste of the ISO and stakeholder's efforts when both should be focused on the needed enhancements for the changing landscape of the ISO system.

The Commission should reject any suggestion by NRG that the Commission order the ISO to initiate a stakeholder process, and that the Commission make the outcome of the instant matter subject to the results of that process. The ISO objects to NRG's request for two reasons.

First, as noted above, the ISO has already proposed to conduct a stakeholder process in its March 18 filing, and the Commission already accepted this proposal in its May 4 order. A Commission order to the same effect now would



be superfluous. The ISO recognizes its commitment and has begun the necessary steps to implement the stakeholder process following FERC's acceptance of the March 18 filing. However, the observation of continued uplift payment exploitation required immediate action. Due to the need to ensure that market participants could not continue to exploit the identified market problem, the ISO was unable to conduct a stakeholder process before making the June 23 filing. Recognizing that parties may have concerns regarding the proposed changes, the ISO will honor its proposal to conduct a stakeholder process to address these issues after the Commission issues an order in the instant proceeding.

Second, conditioning the outcome of this matter upon the resolution of the stakeholder process would further delay the implementation of necessary tariff changes. Other market participants may engage in exploitative behavior if the Commission does not accept the ISO's expedited firm action to eliminate the identified incentives. Requiring a stakeholder review of the proposed rules at this juncture would unreasonably prolong the process, and would risk unnecessarily exposing the ISO's markets to significant economic and operational hardships. None of the intervenors have raised any actual reason that warrants such delay. Indeed, the ISO's proposed tariff changes are so narrowly tailored that the intervenors have not been able to identify any actual unintended consequences. The Commission should grant the ISO's proposed tariff amendments and allow for appropriate stakeholder involvement according to the 90-120-day timetable contemplated in the Commission's May 4 Order.

**B. The Proposed Changes to the Intra-Day Ramping Rules are Narrowly Tailored to Target Specific Practices, and will not Affect Other Units.**

PG&E expressed concern that the introduction of a “full ramp period” into tariff section 11.8.2.4 could unfairly penalize generators for scheduling energy according to normal and reasonable bidding behavior; however, PG&E still recommended adoption of the proposed rule because of the need to rapidly halt the specific bidding practices noted in the June 23 filing.<sup>5</sup> The ISO contended in the June 23 filing that the impact of the proposed changes to tariff section 11.8.2.4 on generating units would be minimal,<sup>6</sup> and Dr. Eric Hildebrandt’s testimony indicated that only nine units across the ISO’s markets would have been affected in the preceding twelve months.<sup>7</sup>

PG&E unnecessarily confuses the record and unnecessarily casts doubt on the ISO’s swift actions to draft rules that address the exploitative behavior and minimize unintended consequences. The proposed inter-day and intra-day ramping rule is narrowly tailored to stop a specific set of market practices and does not eliminate the opportunity for bid cost recovery where it is fairly deserved. Rather, the ISO’s proposed tariff amendment ensures that the new BCR rule would apply only in those instances where day-ahead ramping energy is strictly associated with the initial conditions setting or the self-scheduled energy. The ISO could have taken broader action to eliminate all bid cost recovery for ramping energy in the day-ahead. However, because it recognizes that in certain instances ramping energy should still be entitled to bid cost recovery, the ISO proposed a more narrowly tailored rule that only target specific behavior. Regarding the nine resources that Dr. Hildebrandt mentions in his testimony, the ISO notes that of the

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<sup>5</sup> PG&E Motion to Intervene and Comments at 5-6.

<sup>6</sup> ISO June 23, 2011 Filing at 20.

<sup>7</sup> ISO June 23, 2011 Filing, Attachment C, at 55-56.

nine, any impact would be de minimis. Nevertheless, the ISO proposes to consider as necessary any changes to 11.8.2.4 in the subsequent stakeholder process, if there should be any evidence of substantial harm to any resource as a result of the rule changes, and commits to adjust these rules as needed to ensure that they not penalize proper and non-exploitative market behavior.

### **C. NRG Protest Regarding Exceptional Dispatch**

NRG also protests the ISO's proposal to extend mitigated exceptional dispatch energy settlement rules to exceptional dispatches needed to access stranded ancillary services awards and residual unit commitment capacity. NRG believes the proposal is overbroad. These concerns are misplaced.

NRG asks the Commission to consider the ISO's proposal in the context of the Commission's recent order in Docket No. ER11-2256.<sup>8</sup> That ruling, however, provides no guidance in the instant proceeding. As NRG notes, in Docket No. ER11-2256, which concerned the ISO's capacity procurement mechanism, the ISO proposed to eliminate the sunset date for its *existing* mitigated exceptional dispatch settlement rules. These rules apply to two categories of exceptional dispatches: those made to address congestion on non-competitive paths and those made under delta dispatch. The Commission ruled that the ISO had not provided sufficient justification to show that the exceptional dispatch mitigation provisions will remain necessary into the indefinite future.<sup>9</sup> Notably, the Commission did not reject the proposal or suggest that continued mitigation could not be justified. Rather, as NRG acknowledges, the Commission stated that its prior acceptance of exceptional

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<sup>8</sup> NRG Protest at 7.

<sup>9</sup> *Cal. Indep. Sys. Operator Corp.*, 134 FERC ¶ 61,211 (2011) P 74.

dispatch mitigation may continue to apply in the “limited circumstances where there is a well-defined structural problem in the market.”<sup>10</sup> The Commission found, however, that the ISO had presented “no new evidence or analysis of continuing structural problems presented by non-competitive transmission paths or whether these problems continue to be sufficiently significant to justify on-going mitigation permanently for exceptional dispatches related to those paths.”<sup>11</sup> For that reason, the Commission directed the convening of a technical conference to examine the continued need for mitigation in the two existing categories for which mitigation is permitted.

In Docket No. ER11-2256, the Commission never ruled on, or even addressed in any manner, whether mitigation might be appropriate in other cases where there is a structural defect in the market. Here, the ISO has identified such a structural defect and has provided the evidence and analysis that the Commission found lacking in Docket No. ER11-2256. After the order in Docket No. ER11-2256 that NRG cites, the ISO incurred millions of dollars of costs due to the need to issue exceptional dispatches for energy bids at prices roughly equal to the \$1,000/MWh bid cap. The need to dispatch such extremely high-priced bids under the prevailing market conditions at that time – in which overall supply was extremely high and prices relatively low – provides ample evidence of market power. NRG presents no evidence or analysis to contradict that included in Dr. Hildebrandt’s testimony; it does not even contest any of Dr. Hildebrandt’s findings

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<sup>10</sup> *Id.* at P 72.

<sup>11</sup> *Id.* at P 76.

Indeed, NRG agrees that it is appropriate to mitigate energy bids by market participants that are strategically and intentionally bidding in a manner such that a resource is scheduled at an operating level from which it cannot deliver all of the energy associated with a day-ahead ancillary service award or RUC, and such that the ISO must accept artificially high energy bids to move the resource to an operating level from which it can deliver the energy associated with the ancillary services award or RUC.<sup>12</sup> NRG contends, however, that the proposal is overbroad, and may result in the mitigation of legitimate bids. As an example, NRG points to circumstances when a generator could be dispatched down in real-time from an operating point assigned in the day-ahead market because of operational factors. It asserts that market participants cannot be certain what real-time prices might be, and also cannot be certain at what operating levels their resources may be dispatched in real time. NRG asks that the Commission require the ISO to specify clear criteria to assess when bidders are unambiguously exercising market power.<sup>13</sup>

NRG is correct that there may be cases in which the ISO dispatches a resource at a lower level in real-time so that the resource cannot provide the ancillary services award or an RUC in the day-ahead market. Although in such cases the ISO may need to issue exceptional dispatches to keep the resource at a level where it can provide its ancillary services schedule or RUC capacity, the resource will *never* be required to operate without sufficient compensation. Because the ISO has now implemented a software change in the day-ahead market such that all ancillary services awarded in the day-ahead market reflect the

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<sup>12</sup> NRG Protest at 7.

<sup>13</sup> *Id.* at 8-9.

operational ramp rate of resources at the level of their day-ahead energy award, such real-time exceptional dispatches would only dispatch a resource up to (but not above) its day-ahead energy award. If a resource is exceptionally dispatched up to (but not above) its day-ahead energy award, the exceptional dispatch simply ensures that the resource provides energy that was scheduled in the day-ahead market based on the resource's day-ahead bids.<sup>14</sup> If the ISO needs to exceptionally dispatch a resource above its day-ahead energy award to ensure the feasibility of ancillary services or RUCs, the resource does not receive an above-cost real-time energy bid price, but is still paid the higher of the locational marginal price or its default energy bid for this energy.

Further, NRG misunderstands the role of market power mitigation. As shown in Dr. Hildebrandt's testimony, when a resource is scheduled to operate at a level below what is necessary for it to provide awarded ancillary services or RUCs upon which the ISO depends, it has market power. Whether the exercise of market power is intentional or not is immaterial for purposes of mitigation – which is not a criminal or civil sanction. Moreover, the ISO has no means of knowing whether the submittal of a real-time bid higher than the locational market price was an intentional exercise of market power. The simple fact is that the ISO has no choice but to dispatch the resource and, in the absence of mitigation, the ISO would have to pay the bid price because of the market power. In other words, the price would be determined by market power, regardless of the resource's intention.

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<sup>14</sup> In other words, the exceptional dispatch simply prevents the resource from being able to "buy back" its day-ahead energy award due to either a higher real-time energy bid price or a real-time price that is lower than the day-ahead price. This is the result under the current tariff. A unit does not receive its real-time bid price for exceptional dispatch energy if the dispatch point is equal to or below the day-ahead schedule.

In such circumstances, under mitigation, the ISO pays the higher of the default bid (representing the resource's cost) or the locational market price. The resource is deprived only of such rewards as may be attributable to its market power.<sup>15</sup>

The ISO proposed to mitigate bids when a resource *has* market power because the ISO must issue an exceptional dispatch in order to access awarded ancillary services or RUCs, not when the resource intentionally takes advantage of its market power. The need to mitigate market power can only be determined by the objective set of market conditions, not by a subjective assessment of a scheduling coordinator's intention. This is no different than the two existing circumstances in which the ISO has the authority to use mitigated exceptional dispatch settlement rules. The ISO does so when it issues exceptional dispatches to provide energy to manage congestion on non-competitive paths and to comply with environmental procedures related to certain power plants located near the California Delta. The Commission does not require the ISO to attempt to discern the scheduling coordinator's intentions with regard to existing applications of mitigated exceptional dispatch settlement rules. It should not do so here.

#### **IV. CONCLUSION**

NRG's protest, if accepted, would unreasonably delay the resolution of several market issues identified in the June 23rd filing, and the Commission should accordingly reject NRG's requests. PG&E's comments can be appropriately addressed during upcoming stakeholder panels. The ISO will uphold its previous

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<sup>15</sup> Although NRG contends that the default clearing price may not guarantee recovery of a unit's costs, *id.* at 9, n.14, the Commission has found that the default clearing price is just and reasonable compensation, *Cal. Indep. Sys. Operator Corp.*, 134 FERC ¶ 61,257 at P 28 (2011).

commitment to stakeholder involvement in the review of tariff sections changed by the March 18 and June 23 filings. For the reasons provided herein, the Commission should accept the ISO's filing without further conditions.

Respectfully submitted,

**By: /s/ Anna McKenna**

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Dated: July 28, 2011



## CERTIFICATE OF SERVICE

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

Dated at Folsom, CA this 28<sup>th</sup> day of July, 2011.

*Is/ Anna Pascuzzo*

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