UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

California Independent System Operator Corporation	))	**Docket No. ER15-15-___**

INFORMATIONAL REPORT OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION ON THE STATUS OF THE BIDDING RULES ENHANCEMENTS INITIATIVE

The California Independent System Operator Corporation ("CAISO") files this informational report pursuant to the Commission's December 30, 2014, order in this proceeding.[1]

I. Background

The December 30 Order accepted the CAISO's proposed tariff revisions to: (1) increase the daily proxy cost bid cap from 100 percent to 125 percent; (2) eliminate the registered cost option for generating resources other than use-limited resources; and (3) add provisions to allow the CAISO to use updated natural gas price data in the day-ahead market when a daily gas price reported by the Intercontinental Exchange ("ICE") on the morning of a day-ahead market run exceeds 125 percent of any natural gas price index calculated for the day-ahead market during the previous night.[2] The Commission accepted the tariff revisions effective as of December 31, 2014, as requested by the CAISO.[3]

The Commission noted the CAISO's commitment to consider longer-term market design changes for resources' commitment cost bids in

1 *Cal. Indep. Sys. Operator Corp.*, 149 FERC ¶ 61,284 (2014) ("December 30 Order").

2 *Id.* at P 31.

3 *Id.*

conjunction with the bidding rules enhancements stakeholder initiative the CAISO had begun earlier in December.[4] The Commission stated that this stakeholder process should explore the need for changes to the proxy cost formula to better reflect the non-gas-related variable costs that the CAISO stated were currently captured in the "headroom" afforded by the 125 percent proxy cost cap.[5]

The Commission encouraged the CAISO to file any tariff revisions resulting from the stakeholder process sufficiently in advance of the 2015-16 winter season to permit Commission review and implementation before the onset of cold weather.[6] To that end, the Commission directed the CAISO to file an informational report by August 1, 2015, regarding the status of the stakeholder process, if the CAISO had not already submitted relevant tariff revisions by that time.[7]

The Commission also directed that, to provide it and stakeholders with information about how the tariff revisions were working in practice, the informational report should include data from winter 2014 through summer 2015 indicating the frequency of bids submitted at or near the 125 percent proxy cost cap, as well as incidences of day-to-day or intra-day natural gas price spikes.[8]

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[4] *Id.* at P 32.

[5] *Id.*

[6] *Id.* at P 33.

[7] *Id.* The Commission stated that the report would be for informational purposes only and would not be noticed for comment or require Commission action. *Id.* at P 33 n.68.

[8] *Id.* at P 33.

Further, the Commission addressed the following comments that the CAISO modify its proposed tariff revisions, or adopt additional modifications:

- Pacific Gas and Electric Company ("PG&E") and the Cities of Anaheim, Azusa, Banning, Colton, Pasadena, and Riverside, California (collectively, "Six Cities") suggested that the CAISO modify its proposal to manually update the gas price for decreases in natural gas prices of 25 percent or more, instead of only for natural gas price increases.[9]

- NRG Power Marketing LLC and GenOn Energy Management, LLC (together, "NRG") and Western Power Trading Forum ("WPTF") raised concerns about generators' ability to recover their full costs. NRG suggested that the CAISO could establish a bidding methodology that sets a soft bidding cap of 125 percent of proxy costs, but allows generators to increase their bids in unique situations where the generators' costs exceed the cap.[10] WPTF argued that the CAISO should implement supplier-based bidding of start-up and minimum load costs, with the ability to update these bids intra-day, similar to the approach employed in other markets.[11]

In response to these suggestions, the Commission reiterated that the CAISO's tariff revisions were just and reasonable and thus no such modifications were necessary at this time. However, the Commission stated that it expected the CAISO and its stakeholders to explore commenters' suggestions in the stakeholder process, and to include a description of the discussion with respect to those suggestions in the informational report.[12]

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9 *See id.* at P 17.

10 *See id.* at P 18.

11 *See id.* at P 19.

12 *Id.* at P 34.

II. Informational Report

A. Data from Winter 2014 Through Summer 2015

As directed in the December 30 Order, this informational report provides data from winter 2014 through summer 2015 indicating the frequency of commitment (*i.e.*, start-up and minimum load) cost bids submitted at or near the 125 percent proxy cost cap, as well as incidences of day-to-day or intra-day natural gas price spikes.[13]

1. Data on Start-Up Cost Bids

From January 1 through June 30, 2015,[14] approximately 62.1 percent of the daily start-up cost bids submitted for resources subject to the proxy cost cap were less than or equal to 100 percent of the proxy cost,[15] and approximately 33.9 of the daily start-up cost bids submitted for such resources were between 100 and 125 percent of the proxy cost. The remaining 4 percent of the daily start-up costs bids were submitted at values greater than 125 percent of the proxy cost and therefore were capped at the 125 percent maximum.

Figure 1 below shows the frequency of the daily start-up cost bids submitted in each of these three categories (less than or equal to 100 percent,

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13 *See* December 30 Order at P 33.

14 For purposes of this informational report, January 1 is deemed the start of the winter and June 30 is deemed the end of the summer 2015 period for which the December 30 Order required data regarding commitment cost bids to be submitted by August 1.

15 A bid can be 100 percent of the proxy cost either because a bid was actually submitted at that level or because no bid was submitted and consequently the bidding software created a bid equal to 100 percent of the proxy cost. This is true for both start-up and minimum load cost bids.

between 100 and 125 percent, and greater than 125 percent of the proxy cost) throughout the January 1-June 30 period.[16]

Figure 1: Frequency of daily start-up cost bids

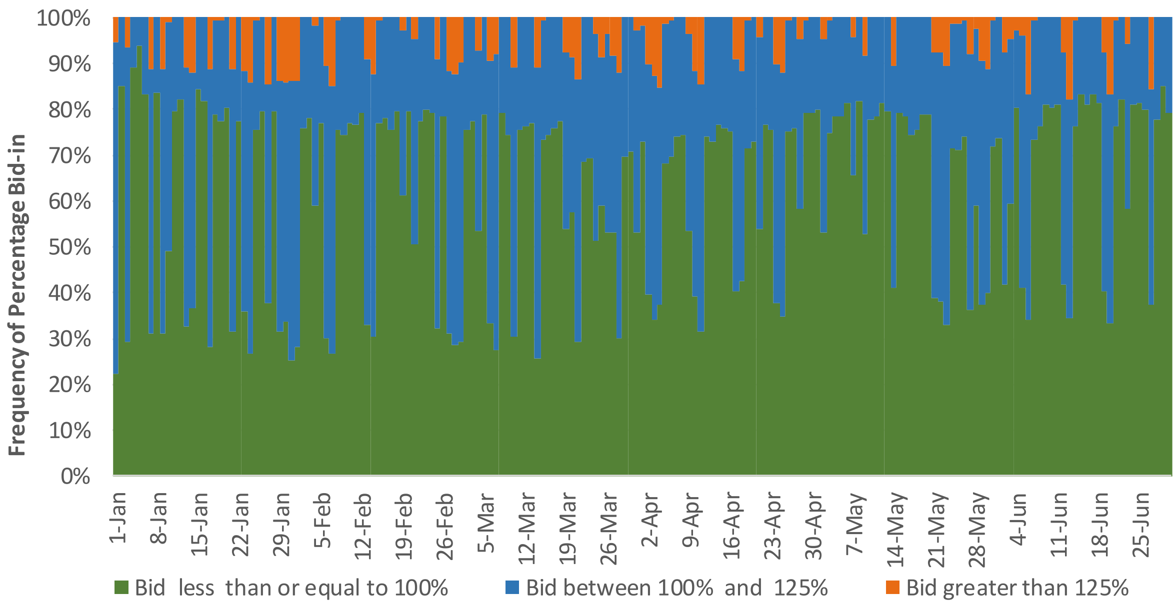

Figure 2 below presents the same data used to create Figure 1, but in a different format – as the distribution of the daily start-up cost bids submitted throughout the January 1-June 30 period. The segments in green represent the bids between the 10th and 90th percentiles of overall bids, while the blue segments represents bids between the 1st and 10th percentiles (lower portion)

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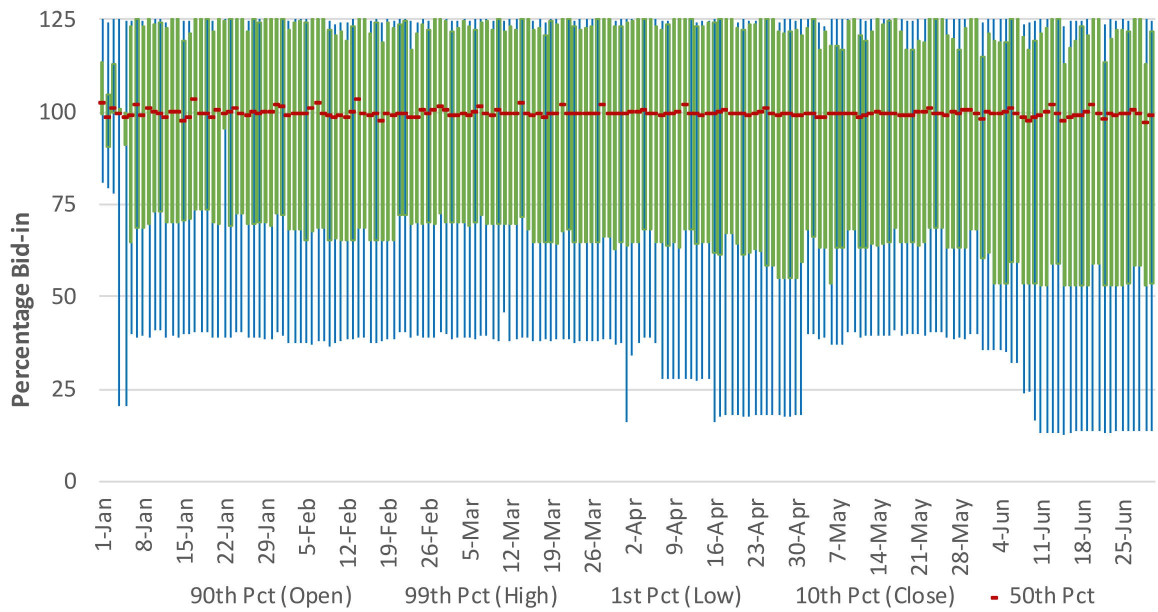
16 For example, in the first days of January, start-up cost bids that were less than or equal to 100 percent of the proxy cost (shown in green) accounted for approximately 85 percent (*i.e.*, the range between 0 and 85 percent shown on the vertical axis of Figure 1) of all the start-up cost bids submitted; start-up cost bids that were between 100 and 125 percent of the proxy cost (shown in blue) accounted for approximately 8 percent (*i.e.*, the range between 85 and 94 percent) of all the start-up cost bids submitted; and start-up cost bids that were more than 125 percent of the proxy cost (shown in orange) accounted for approximately 6 percent (*i.e.*, the range between 94 and 100 percent) of all the start-up costs bids submitted.

and the 90th and 99th percentiles (upper portion). The dot in red represents the 50th percentile.[17]

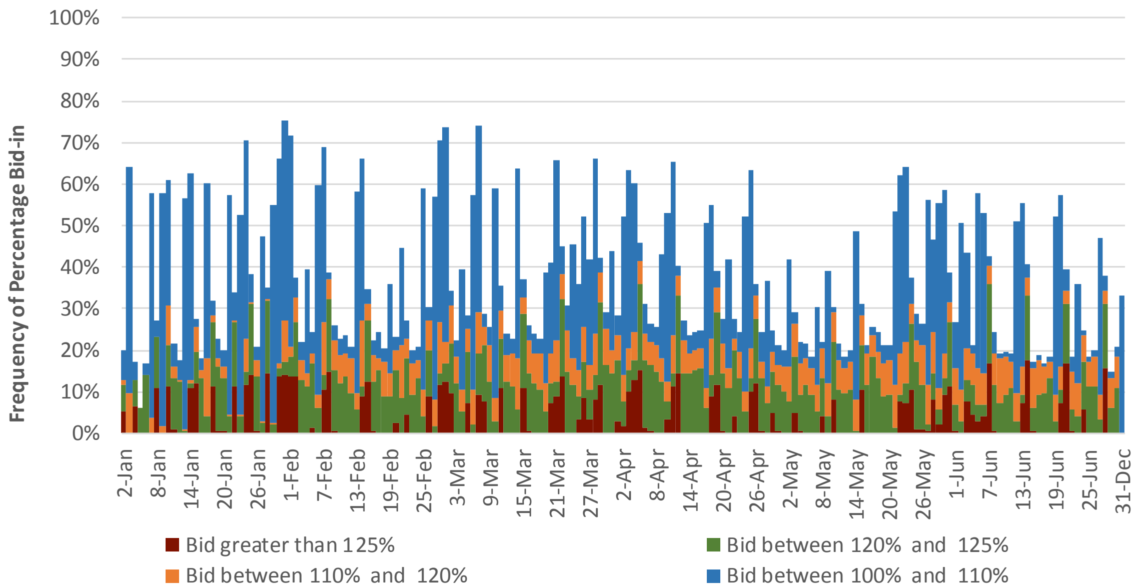
Figure 2: Distribution of daily start-up cost bids



In order to evaluate the bids for start-up costs that were submitted close to the proxy cap of 125 percent, Figure 3 below shows the percentages of bids that were submitted above 100 percent of the proxy cost organized into four different groups: bids between 100 and 110 percent, bids between 110 and 120 percent, bids between 120 and 125 percent, and bids greater than 125 percent of the proxy cost.

[17] For example, on January 1, the lowest 10 percent of the submitted start-up cost bids (depicted as the lower blue segment) ranged from approximately 80 percent to approximately 98 percent of the proxy cost; the highest 10 percent of the submitted start-up cost bids (depicted as the upper blue segment) ranged from approximately 115 percent to 125 percent of the proxy cost; and the middle 80 percent of the submitted start-up cost bids (depicted as the green segment) ranged from approximately 99 percent to approximately 114 percent of the proxy cost, with the 50th-percentile value (depicted as the red dot) being approximately 102 percent of the proxy cost.

Figure 3: Distribution of daily start-up cost bids by group



Approximately 18.4 percent of all the submitted daily start-up cost bids were between 100 and 110 percent, approximately 6.1 percent of all such bids were between 110 and 120 percent, approximately 9.4 percent of all such bids were between 120 and 125 percent, and, as noted above, approximately 4 percent of all such bids were greater than 125 percent of the proxy cost.

2. Data on Minimum Load Cost Bids

From January 1 through June 30, 2015, approximately 69.6 percent of the daily minimum load cost bids submitted for resources subject to the proxy cost option were less than or equal to or 100 percent of the proxy cost, and approximately 27.7 percent of the daily minimum load cost bids submitted for such resources were between 100 and 125 percent of the proxy cost. The remaining 2.7 percent of the daily minimum load cost bids were submitted at values greater than 125 percent of the proxy cost and therefore were capped at the 125 percent maximum.

Figure 4 below shows in the frequency of the daily minimum load cost bids in each of these three categories (less than or equal to 100 percent, between 100 and 125 percent, and greater than 125 percent of the proxy cost) throughout the January 1-June 30 period, depicted in the same manner as the frequency of the daily start-up cost bids shown in Figure 1 above.

Figure 4: Frequency of daily minimum load cost bids

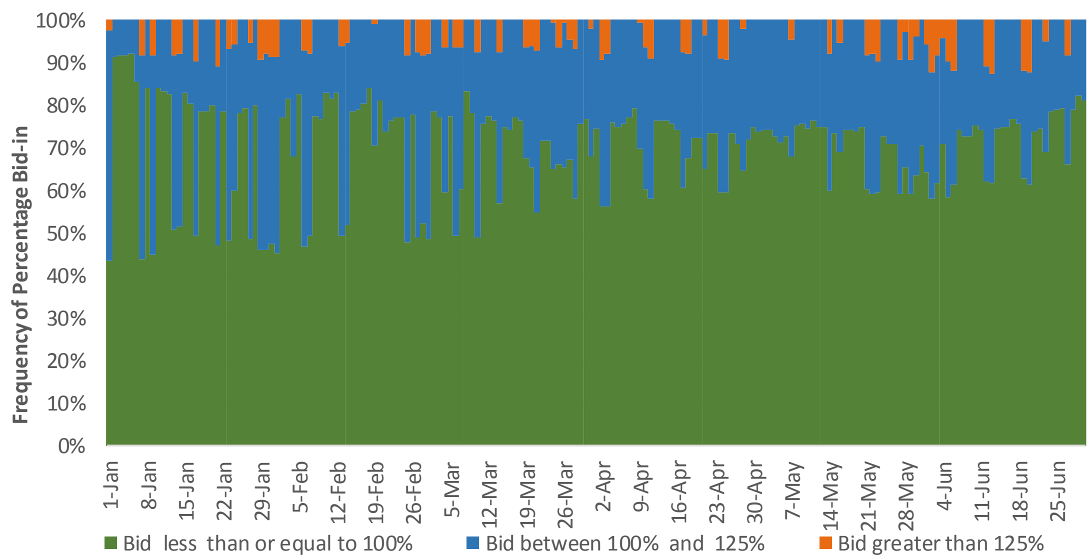
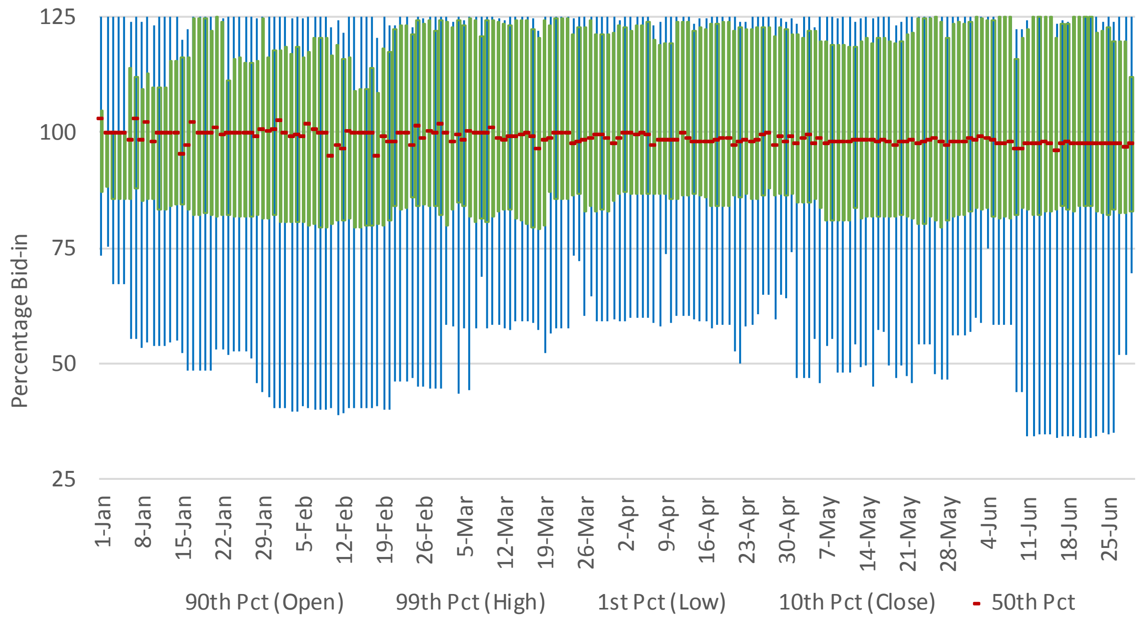


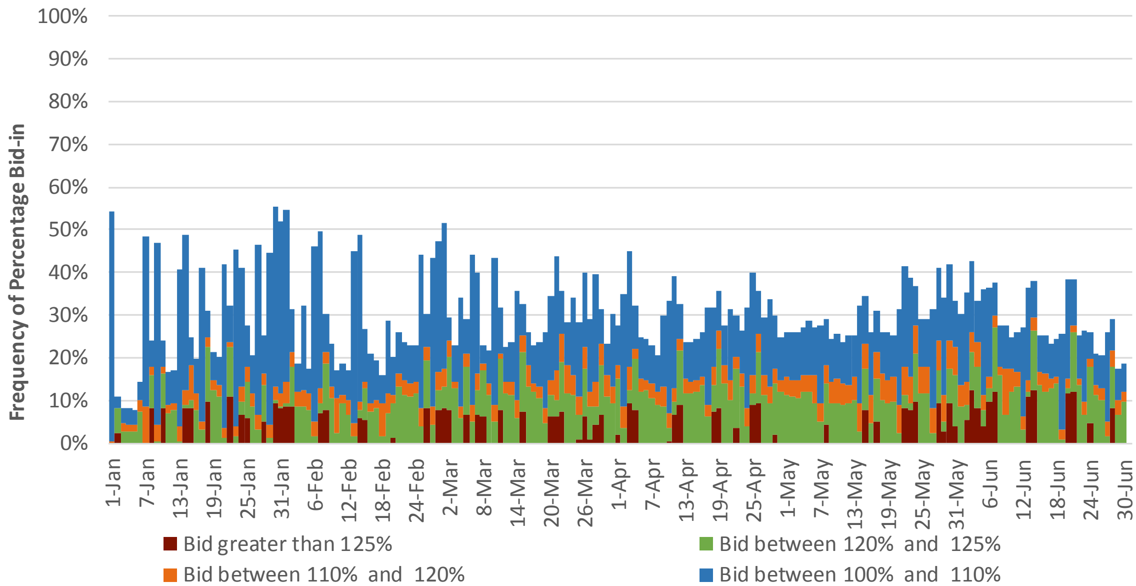
Figure 5 below presents the same data used to create Figure 4, but in the format of the distribution of the daily minimum load cost bids submitted throughout the January 1-June 30 period, depicted in the same manner as the distribution of the daily start-up cost bids shown in Figure 2 above.

Figure 5: Distribution of daily minimum load cost bids



Similar to Figure 3 above, Figure 6 below shows the frequency of daily minimum load cost bids for each of four groups (between 100 and 110 percent, between 110 and 120 percent, between 120 and 125 percent, and greater than 125 percent of the proxy cost).

Figure 6: Distribution of daily minimum load cost bids by group



Approximately 16 percent of all the submitted daily minimum load cost bids were between 100 and 110 percent, approximately 3.8 percent of all such bids were between 110 and 120 percent, approximately 8 percent of all such bids were between 120 and 125 percent, and, as noted above, approximately 2.7 percent of all such bids were greater than 125 percent of the proxy cost.

3. Incidences of Day-to-Day or Intra-Day Gas Prices Increasing More than 125 Percent

From January 1 through July 15, 2015, there were no incidences of gas prices increasing more than 125 percent from gas prices on the previous day or increasing more than 125 percent within a day. During that period there were some incidences of smaller increases in day-to-day and intra-day gas prices, including several incidences of gas price increases between 110 and 121 percent. These incidences are shown in the tables provided in attachment A to this informational report.

B. The Bidding Rules Enhancements Stakeholder Process

The bidding rules enhancements stakeholder initiative began in early December 2014. Like other CAISO stakeholder processes, the initiative includes two successive parts – a stakeholder process to develop the policy to be implemented, followed by a stakeholder process to develop any tariff revisions needed to implement that policy. To date, in the policy development portion of the stakeholder process, the CAISO has issued three papers, solicited written stakeholder comments on each paper, and held three web conferences with stakeholders.[18]

From May through July 2015, however, it was necessary for CAISO and stakeholders to shift the focus of the bidding rules enhancements stakeholder initiative to issues other than those discussed in the December 30 Order. During that time, the CAISO and stakeholders addressed possible alternative approaches to meet a CAISO filing obligation related to the Commission's recently issued Order No. 809.[19] This shift was necessary because of the overlap in issues between Order No. 809 and the matters under consideration in the bidding rules enhancements initiative.

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[18] Materials related to the bidding rules enhancements stakeholder process are available on the CAISO website at http://www.caiso.com/informed/Pages/StakeholderProcesses/BiddingRulesEnhancements.aspx.

[19] *Coordination of the Scheduling Processes of Interstate Natural Gas Pipelines and Public Utilities*, Order No. 809, 151 FERC ¶ 61,049 (2015), 80 Fed. Reg. 23198-01 (Apr. 24, 2015) ("Order No. 809"). The CAISO initiated the discussion of possible alternative approaches to meeting its Order No. 809-related filing obligation on April 30, 2015, when it issued a market notice announcing that it would hold a stakeholder web conference on May 15, 2015, to discuss Order No. 809, and requesting that stakeholders submit relevant written comments prior to the web conference.

Order No. 809 revised the Commission's regulations on the scheduling of transportation service on interstate natural gas pipelines, including modifications to the regulations regarding the timely nomination cycle for day-ahead scheduling of transportation service on such pipelines.[20] Pursuant to separate proceedings initiated by the Commission for each independent system operator ("ISO") and regional transmission organization ("RTO") pursuant to Section 206 of the Federal Power Act, the Commission directed the CAISO (and each other ISO and RTO) to: (1) make a filing that proposes tariff changes to adjust the time at which it posts the results of its day-ahead energy market and reliability unit commitment process to a time that is sufficiently in advance of the timely and evening nomination cycles to allow gas-fired generators to procure natural gas supply and pipeline transportation capacity to serve their obligations; or (2) show cause why such changes are not necessary.[21] The Commission required each ISO and RTO to make such a filing within ninety days after Order No. 809 was published in the Federal Register, *i.e.*, by July 23, 2015.[22] After discussing possible alternative approaches with its stakeholders, and issuing papers and soliciting written stakeholder comments on the subject, the CAISO prepared and submitted the required filing on July 23 in Docket No. EL14-22-000.

With the submittal of that filing on July 23, the CAISO and stakeholders can now turn their attention back to the other issues to be considered in the bidding rules enhancements stakeholder process. The stakeholder process will

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20 *Id.* at PP 87-88.

21 *California Independent System Operator Corp., et al.*, 146 FERC ¶ 61,202 (2014).

22 *See id.* at P 19.

resume discussion on topics that include, as required by the December 30 Order, exploration of the need for changes to the proxy cost formula to better reflect the non-gas-related variable costs currently captured in the headroom afforded by the 125 percent proxy cost cap.[23] This topic was taken up in the Straw Proposal the CAISO issued in the stakeholder process and in written stakeholder comments on the Straw Proposal.[24] The next scheduled milestone in this effort is the CAISO's issuance of a revised straw proposal in early September.

The discussion topics will also include the suggestions that NRG, WPTF, PG&E, and Six Cities provided in their comments in this proceeding.[25] Germane to NRG's suggestion that the CAISO could allow generators to increase their bids above the proxy cost cap where the generators' costs exceed the cap, the CAISO has put forth a straw proposal that, if it decides not to adopt measures to enhance energy bidding flexibility, it would consider allowing options for addressing costs of gas purchases above the gas price index used in the real-time market. The CAISO is reviewing feedback from stakeholders regarding this proposal.[26] With respect to WPTF's suggestion that the CAISO implement

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23 See December 30 Order at P 32.

24 *See* Bidding Rules Enhancements Straw Proposal at 19-20 (Apr. 22, 2015) ("Straw Proposal"); presentation on Bidding Rules Enhancements Straw Proposal Discussion at slide 25 (Apr. 29, 2015) ("Straw Proposal Presentation"); written comments on Straw Proposal submitted by Calpine Corporation ("Calpine"), NRG, PG&E, San Diego Gas & Electric Company ("SDG&E"), Six Cities, Southern California Edison Company ("SCE"), and Viasyn, Inc. ("Viasyn"). These materials are available on the CAISO website page cited in footnote 18 above.

25 *See* December 30 Order at P 34.

26 *See* Straw Proposal at 6-9, 17-18; Straw Proposal Presentation at slides 14-17; written comments on Straw Proposal submitted by CalPeak Power, LLC and Malaga Power, LLC (together, "CalPeak"), Calpine, NRG, SCE, SDG&E, Six Cities, WPTF, and the CAISO's Department of Market Monitoring ("DMM").

supplier-based bidding of start-up and minimum load costs similar to the approach employed in other markets, the CAISO is conducting a survey of the commitment cost bidding and market power mitigation methodologies of other ISOs and RTOs as an alternative to commitment cost bid caps.[27] Following the issuance of the Straw Proposal, PG&E and Six Cities have not expressed any further interest in pursuing their suggestion that the CAISO update the gas price for significant decreases in natural gas prices. However, if a stakeholder indicates such an interest, the CAISO will address the suggestion in upcoming stakeholder documents issued in the bidding rules enhancements stakeholder process.

With respect to timing, as stated in the Straw Proposal, the CAISO anticipated that it would submit resulting tariff modifications to its governing board by mid-December 2015.[28] However, the expansion of the stakeholder process to include Order No. 809-related issues as discussed above means that it will require more time to complete than the CAISO anticipated. For this reason, the CAISO is considering breaking the stakeholder process up into successive phases, with the outcome of the first policy development phase expected to be presented for approval by the CAISO Governing Board in early 2016 and implemented pursuant to tariff revisions that will likely go into effect later in 2016.[29]

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[27] *See* Straw Proposal at 9-13; Straw Proposal Presentation at slides 5-12; written comments on Straw Proposal submitted by CalPeak, Calpine, NRG, SCE, WPTF, and the DMM.

[28] *See* Straw Proposal at 5.

[29] In addition to the bidding rules enhancements initiative, the CAISO is also in the midst of another stakeholder process, the commitment cost enhancements phase 3 initiative, which is aimed at further refinement of the CAISO's commitment cost formulas by developing an explicit

The CAISO recognizes this means it will be unable to file any tariff revisions resulting from the stakeholder process before the 2015-16 winter season.[30] However, the CAISO believes it is important that the CAISO and stakeholders take the time necessary to develop a robust policy and tariff enhancements.

Moreover, the CAISO is confident that additional tariff changes for winter 2015-16 will not be necessary. While the CAISO is committed to pursuing further enhancements to its commitment cost bidding rules, the current 125 percent proxy cost bid cap and alternative gas price calculation mechanisms that are already in place strike a reasonable balance between protecting suppliers against any potential gas price spikes, while limiting the potential for over-recovery of commitment costs. This conclusion is supported by the data provided in this report, which show that only about 13.4 and 10.7 percent of all daily bids submitted for start-up costs and minimum load costs, respectively, were close to the proxy cost cap of the 125 percent, *i.e.*, were between 120 and 125 percent of the proxy cost and greater than 125 percent of the proxy cost.[31] This conclusion is also supported by a report

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opportunity cost adder. *See* http://www.caiso.com/informed/Pages/StakeholderProcesses/CommitmentCostEnhancementsPhase3.aspx.

[30] *See* December 30 Order at P 33.

[31] As discussed above, approximately 9.4 percent of submitted daily start-up cost bids were between 120 and 125 percent and approximately 4 percent of such bids were greater than 125 percent of the proxy cost, making a total of 13.4 percent of such bids close to the 125 percent proxy cost cap. Also, as discussed above, approximately 8 percent of submitted daily minimum load cost bids were between 120 and 125 percent and approximately 2.7 percent of such bids were greater than 125 percent of the proxy cost, making a total of approximately 10.7 percent of such bids close to the 125 percent proxy cost cap.

issued by the DMM in May 2015 that provided stakeholders with information relevant to the bidding rules enhancements initiative.[32] The DMM Report concluded that, based on the DMM's analysis of spot natural gas market prices over the preceding five years, the gas prices the CAISO uses in its markets are sufficient to cover about 99 percent of the upward volatility of daily spot market gas prices the CAISO uses to calculate default energy bids and commitment costs.[33] For these reasons, the CAISO does not see any need to rush the bidding rules enhancements stakeholder initiative in order to implement any resulting tariff modifications before the winter 2015-16 period.

Respectfully submitted,

/s/ Sidney L. Mannheim

Roger Collanton
General Counsel
Sidney L. Mannheim
Assistant General Counsel
California Independent System
Operator Corporation
250 Outcropping Way
Folsom, CA 95630
Tel: (916) 351-4400
Fax: (916) 608-7296
smannheim@caiso.com

Counsel for the California Independent
System Operator Corporation

Dated: July 31, 2015

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[32] Department of Market Monitoring, Report on Natural Gas Price Volatility at Western Trading Hubs (May 14, 2015) ("DMM Report"), available on the CAISO website page cited in footnote 18 above.

[33] *Id.* at 5-11 and appendix A. The DMM's conclusion is also consistent with the data discussed above showing that, from winter 2014 through summer 2015, there were no incidences of gas prices increasing more than 125 percent from gas prices on the previous day or increasing more than 125 percent within a day, but there were some incidences of smaller increases in day-to-day and intra-day gas prices.

CERTIFICATE OF SERVICE

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

Dated at Washington, DC this 31st day of July, 2015.

/s/ Bradley R. Miliauskas
Bradley R. Miliauskas