Submitted by	Company	Date Submitted
Brian Theaker	NRG Energy, Inc. (”NRG”)	May 21, 2014

The CAISO’s proposal to allow for daily bidding of start-up and minimum load (“SU-ML”) costs above the Proxy Cost level is sound, and comes closer to reflecting some of the challenges of transacting gas to follow CAISO dispatch instructions.

Still, the CAISO proposal does not reflect or address all of the challenges of transacting gas to follow CAISO dispatch instructions. As such, NRG requests that the CAISO also consider the following modifications, as will be discussed below:

- Increasing the “headroom” for bidding start-up and minimum load costs by allowing for daily bidding of SU-ML costs up to 150% of proxy cost to address the multitude of issues faced by generators in procuring intra-day gas and gas on weekends which flow from out-of-merit or unexpected CAISO dispatches;
- Allowing suppliers to directly invoice for unrecoverable gas costs (such invoices would include suitable documentation of the unrecoverable gas costs), perhaps by putting a provision into its tariff that would expressly permit generators to file for cost recovery at FERC;
- Using the ICE gas index instead of the Argus gas index for establishing proxy costs;
- Accelerating the timing of this stakeholder process so that the modifications are put into effect by November 1, 2014;
- Expressing support for breaking up the current three-day weekend gas “package” into separate Saturday/Sunday and Monday packages; and
- Including in the bidding rules initiative slated to begin in Q3 2014 provisions that would allow generators to update their natural gas procurement costs on an hourly basis.

Introduction

It can be difficult, if not impossible, to accurately predict the gas burn for higher-heat rate gas-fired generating units. Many units typically operate uneconomically (i.e., not in merit order) to support local reliability needs during weekends, off-peak and shoulder seasons. Their operation does not correlate with market prices. As a result, given the timing of the gas markets and the CAISO electricity markets, the owners of such units cannot reasonably procure gas forward in the liquid day-ahead gas markets. Instead, this subset of generators typically buys its natural gas in the intra-day markets. This creates a fundamental mismatch between proxy cost, which is based only on day-ahead gas market purchases, and the real costs of gas procured in the intra-day market to support the units’ operation. The difference in gas price between the intra-day markets and the daily indices used by the CAISO in its markets can be significant, especially under stressed conditions or across weekends. While intra-day and weekend gas procurement activities cannot be conveniently measured by published indices, those costs are real, and are often substantial.

As several market participants pointed out on the May 7 call, the CAISO must acknowledge and deal with the issues raised by the need to procure gas in the intra-day markets. The CAISO’s observation that day-ahead gas indices rarely changes by more than 25% does not account for the fuel procurement costs of generators forced to buy gas in the intra-day gas market. The CAISO can and does regularly call for units to operate at unexpected and inopportune times – this is the reality of actual operations, a reality that does not fit neatly into a box built around daily index prices.

During the December 2013 and February 2014 gas events, intra-day gas often traded at prices that were many multiples of the daily gas price indices. NRG notes that during the December 2013 event (12/7/13 to 12/10/13), NRG was forced to buy intra-day and weekend gas, the price for which was not included in any published index, at an average of 149%, and as high as 160%, of the CAISO proxy cost assumption used by the ISO in its Day-Ahead and Real Time markets. It is important to remember that the daily indices represent an average of gas prices for gas *already transacted*. The daily gas price indices do not reflect prices at which unrestricted amounts of gas can be acquired in later nomination cycles. In fact, the intra-day gas markets are far less liquid than those represented in daily published indices; as a result, the intra-day gas prices are much more volatile.

Whatever solution is developed must work for all conditions and dispatch horizons. Surveying historical price volatility provides no guarantee that future volatility will remain within the limits of the previous five years. Suppliers must be able to recover their costs in all conditions, regardless of whether the gas is transacted in advance of the publications of the CAISO day-ahead market awards or in the intra-day market.

<u>Issues Not Addressed By the CAISO Proposal</u>

The CAISO's proposal is a reasonable starting place. NRG generally supports the direction this proposal takes. However, NRG notes that the CAISO's proposal does not address several current problems:

- It does not address the "weekend" problem, in which gas procured to support dispatch on Saturday, Sunday and Monday is deemed to be transacted at Friday's price. The price that parties pay to transact gas to follow dispatch instructions across the weekend is typically very different than the Saturday – Monday index price published Friday evening. Similarly, the price paid to procure gas to follow dispatch instructions across holiday periods can be very different than the last index price established prior to the holiday period. NRG would appreciate a firm statement from the CAISO that it would support breaking up of the weekend package into separate Saturday/Sunday and Monday packages.

- It does not address the intra-day problem. The cost of gas procured in the intra-day markets to follow changing CAISO dispatch instructions can be greatly different than the relevant day-ahead index price. In December 2013 and February 2014, NRG encountered situations in which the intra-day market prices were several multiples of, up to ten times, the daily index price. As an example, NRG purchased intra-day gas to follow CAISO instructions at prices up to $40/MMBtu during the February 2014 gas event.

- It does not address the problem of having to dispose of gas acquired to support CAISO dispatch instructions that are later rescinded. The costs of disposing expensive gas procured in the expensive intra-day market under tight winter balancing conditions have been and can be significant.

Because the CAISO proposal does not fully address these problems, NRG urges the CAISO to amend its proposal as follows:

- **<u>The CAISO Should Increase The “Headroom” For Bidding SU-ML Costs</u>**

  The CAISO has proposed to allow daily bidding of start-up and minimum load costs up to 125% of proxy cost. While, as will be noted below, a system that would allow daily bidding of SU-ML costs supervised by a conduct-and-impact market power mitigation system would provide greater flexibility for suppliers, NRG expects such a system could not be implemented by the next winter gas season. Assuming that what the CAISO is proposing is an interim solution that can be implemented by winter 2014-15 and will eventually be replaced, NRG suggests the “headroom” for this interim solution be increased to 50% so that the cap is 150% of proxy cost. While this will provide no guarantee that suppliers will be able to recover their costs under all unusual circumstances, increasing the headroom will provide greater assurance that suppliers can recover their costs in most circumstances and reduce the need for the CAISO and suppliers to take extraordinary measures to ensure suppliers recover their gas procurement costs.

- **<u>The CAISO Should Allow for Direct Invoicing of Unrecoverable Costs</u>**

  We recommend that the CAISO add a provision that allows generators to seek cost recovery for unrecoverable gas procurement and balancing costs, on a one-off basis, when unusual events occur that are not covered by the generic rule. The CAISO could accomplish this by either allowing generators to invoice the CAISO or the IMM directly, or allow generators to seek cost recovery directly at FERC. NRG hopes that there would be few events in which suppliers would be required to invoice the CAISO for gas disposal costs, but the fact that there may be few such events should not mean that suppliers are forced to take losses when those events occur. This “catchall” would also address other unanticipated gas procurement costs. The CAISO can take measures to ensure that market participants submit information so as not to game such a system, but not providing for such a direct invoicing system because it might be manipulated is not an acceptable approach.

<u>Intra-Day Gas Cost Updates</u>

The CAISO should consider initiating a longer-term process that would allow hourly re-offers in the real-time operating time horizon to reflect actual intra-day gas price changes. This is clearly “best practices” and would resolve many of the issues identified throughout this proceeding.

<u>Other issues</u>

- **Threshold gas price change for using the ICE index.** In the April 30 straw proposal, the CAISO suggests that the process to use the single ICE index could be triggered at a threshold other than a 50% change in the daily gas price, but does not explicitly offer what that threshold should be. The CAISO should explicitly identify what steps it will take, and when and at what price levels it will take those steps, if daily gas prices increase significantly day-to-day.

- **Re-examining the current indices used.** The CAISO should re-examine the gas price indices it uses to establish proxy costs to ensure that those indices are adequately liquid and reflect market conditions. In NRG's experience, the Argus index is thinly traded and rarely used. By contrast, the ICE Index is extremely liquid and is the platform used for most gas transactions. We recommend that the CAISO utilize ICE for establishing its proxy costs.

- **Conduct and Impact Market Power Mitigation.** The most robust commitment cost structure is one which allows daily bidding of start-up and minimum load costs subject not to an arbitrary cost-based cap, but subject to more thoughtful and deliberative market power mitigation that would also recognize as mitigated those units that are sitting at their minimum load levels (so that those hours can be included in the application of the frequently mitigated unit bid adder). The structure of the Default Energy Bid should also be re-examined; generating units that are mitigated because of their purported potential to exercise local market power now are mitigated to a DEB based on a lagging gas price index that reflects a gas cost that market participants can no longer transact gas at. While NRG agrees that such a market power mitigation structure will require significant systems modifications and therefore cannot be implemented prior to the winter 2014-2015 gas season and is best discussed as part of the bidding rules stakeholder process slated to begin in the third quarter of 2014, NRG respectfully urges the CAISO to leave such a system "on the table".

- **Timing of Implementation.** As NRG pointed out on the May 7 call, the current proposed timing for this initiative would suggest that the earliest it could be implemented is December 1, 2014. The first of last winter's two severe gas events began on December 6, 2013, and it is possible that weather cold enough to affect gas supplies could strike California or elsewhere in the country in November. Moreover, the long Thanksgiving weekend provides a real opportunity for intra-day and daily index gas prices to diverge. Coupled with what could be seasonably cold weather, the long Thanksgiving weekend could create significant pricing problems, such as those that occurred in 2009. NRG strongly urges the CAISO to accelerate the timing of this initiative so that its remedies can be put into place by November 1, 2014.