Comments of Calpine Corporation on

FERC Order 809

Straw Proposal

Dated: April 22, 2015 Comments Submitted: May 6, 2015

Summary:

Calpine believes that the most efficient gas and power clearing and nominations process would be the sequence as follows:

- Knowledge of natural gas price as informed by national trading markets; followed by,
- Submission of DA power bids; followed by,
- Publishing final power schedules; followed by,
- Submission of gas nominations to match power schedules in the "timely' nomination cycle.

In order to accomplish this sequence, Calpine slightly prefers the first alternative proposed by the CAISO (earlier DA submission and clearing) to the other alternatives presented. We believe strongly that alternative 3 (late afternoon submission and clearing of power schedules) should be promptly removed from further consideration.

Order 809 and Assumptions

In evaluating gas-electric coordination, FERC has issued Order 809, which among other things changes scheduling practices for gas pipelines. In particular, Order 809 moves the deadline for submission of timely nominations from 11:30 CT to 1:00 CT. The CAISO asks whether this change, when complemented by changes to its DA bid submission and power clearing, would improve market certainty. In this analysis, we assume that the timing of national gas and power trading markets do not change substantially. It is important to note that Calpine's fleet of combined-cycles have historically been infra-marginal, and as such, estimating gas demand has been fairly straightforward. Future conditions are likely to make forecasting more difficult and gas-electric coordination more important. Our views are informed by both experiences on LDC and Interstate pipelines.

Calpine's Preference is for Alternative 1

Alternative 1 suggests that the CAISO's DA bid submission deadline would be earlier in the day, possibly as early as 07:00 Pacific (09:00CT), allowing the processing and publishing of final DA schedules between 09:00 and 10:00 Pacific¹.

This alternative improves upon the status quo and in combination with 809 changes would allow much better transparency to final power schedules prior to the close of the new "timely" nomination window at 11:00 Pacific. This would allow a higher proportion of gas to be confirmed in the timely window where liquidity is still substantial.

Calpine Suggests that Alternative 3 Be Eliminated,.. With Haste.

The third alternative proposed by the CAISO would substantially delay knowledge of final generation schedules, placing gas-fired generators at significantly higher financial risk. Generators would be forced into a Hobson's Choice of greater risk by either (1) purchasing and nominating significant quantities of gas without knowledge of final DA power awards, or alternatively, (2) purchasing and nominating gas in the highly volatile and illiquid evening or intra-day markets. This option does not advance the coordination objectives, and in many ways exacerbates risk. As such, it should be promptly and completely eliminated from further consideration.

Answers to Specific Questions

1. How much gas do you procure through the Timely market? How would that change with the new nomination deadline? Does the deadline impact operations?

Calpine procures the majority (as much as 90 percent) of its gas through the national gas trading market and then submits flow nominations through the "timely" nomination process. With todays' timelines, we must submit those nominations long-before we know our final power schedules. In doing so we take the risk that either we are nominating too much gas (and will have to sell later) or that we will be short (and will have to buy later).

The later "timely" nomination deadline (11:00 pacific) mandated by Order 809 by itself, will not affect the risk we assume – it is still timed before final DA power schedules are known. However, this later nomination window in combination with an earlier CAISO DA market clearing, may allow us to

¹ We assume that other CAISO market functions important to bid formulation would also be moved forward, such as outage postings.

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nominate flows in the "timely" cycle with much better knowledge of anticipated operations. As such we support alternative 1.

2. Are the three alternatives appropriate and viable for market participants? Are there more alternatives?

As we suggest above, Alternative 3 greatly increases that risks borne by gas-fired resources and should be eliminated. Alternative 2, which we consider the status quo, confirms the risks we face today, and as discussed below, could greatly increase risk in a market with higher renewable penetrations.

3. What are the benefits and concerns for each alternative? Please be explicit and describe both operational and financial impacts.

See above.

4. Is ISO differently situated than other organized markets? How so?

Yes. The CAISO supply mix is different from other regions and the growth of variable renewable resources will place increasing emphasis on the need for efficient coordination of gas and electric scheduling practices. Uncertainty in both the magnitude and hourly timing of gas burns will make purchasing and nominations of natural gas more complex, and if left uncoordinated, will place gas-fired generators at significantly more risk.

Thanks