

Dynegy Comments on Data Release & Accessibility

Phase 1: Transmission Constraints

Amended November 28, 2009

Submitted by Brian Theaker

General Comments

Dynegy appreciates the CAISO's efforts to bring greater transparency to its markets and thanks the CAISO for the opportunity to submit these comments.

Dynegy believes it would be useful for the CAISO, as part of this effort on data release, to articulate its vision of how its markets and operations functions should be integrated.

- Does the CAISO believe that every operational action it takes should create some kind of meaningful and transparent price signal? If not, why not?
- What is the role of the CAISO's day-ahead market? Is it simply a financial market?
- To what extent should the results of the day-ahead market project the optimal mix and location of generation to serve the next day's projected demand at the least cost, using the best information on available at the time?
- Alternatively, to what extent should the day-ahead market results replicate expected "real-world" conditions?
- What are the costs and benefits of enforcing constraints in one market but not in all markets?
- When flows projected by the CAISO's network model do not resemble real-world conditions, how much effort should the CAISO undertake to try to match the model and actual results? Alternatively, how much non-priced exceptional dispatch is the CAISO willing to accept?
- How is the exercise of operator judgment factored into the market results? How does the CAISO ensure that such judgment is being exercised in a non-discriminatory way?

Comments on CAISO Constraint Enforcement Practices

Use Limited Resources

Dynegy understand the CAISO's reluctance to commit use-limited resources based on the results of the Day-Ahead market, particularly if that commitment is driven by a contingency that may or may not occur in real-time. However, this practice could result in depressing day-ahead prices, if the resources that are not committed would be

marginal. Can the CAISO comment on what effect this practice has on day-ahead prices?

Management of Transmission Outages

The language cited in the November white paper;

“Planned transmission outages present another situation where there is a need for the ISO to exercise judgment as to whether to enforce a contingency-based constraint. ... The CAISO may determine that alternative constraints should be applied instead of the originally define[d] ones for the duration of the planned outage work.”

provides no meaningful information as to why the CAISO needs to exercise judgment, or why alternative constraints may need to be applied. Dynegy requests the CAISO provide additional detail on how transmission outages affect constraint enforcement.

Lessons from Market Results

The CAISO's indication that it may not enforce day-ahead constraints when day-ahead results indicate congestion, but real-time results do not, raises the question of how the CAISO views the function of the day-ahead market. It is not possible for market participants to know if this practice is reasonable or not without also knowing how conditions have changed from the day-ahead to the real-time market. The results of the day-ahead market are not invalid just because they differ from those realized under real-time conditions. The day-ahead market is run with projected data, not actual data. The CAISO's decision to enforce or not enforce constraints in the day-ahead market based on the real-time results implies some attempt on the CAISO's part to influence day-ahead market prices and changes the CAISO's role from facilitating a neutral exchange to determining what the "right" price should be. The CAISO should be focusing its efforts on improving the inputs to, and accuracy of, its day-ahead model, rather than on selectively enforcing day-ahead constraints because of differences between day-ahead and real-time results.

Temperature-dependent limits

Dynegy does not understand the CAISO's position to not enforce any temperature-dependent limits in the day-ahead market. Dynegy understands the complexity and uncertainty inherent in trying to project what those limits might be, based on a projection of next-day temperatures, but that is what the CAISO should be doing. The CAISO projects load based on next-day information; it should similarly project and enforce temperature-dependent network limits.

Adjusting Transmission Limits

Dynergy commends the CAISO for providing information on this practice, including the extensive discussion of this practice in the last quarterly report on market performance. This practice seems far more widespread than was first perceived (e.g., Figure 5.1 of the quarterly report indicates that the limits on path 26 were “biased” 45% of the hours, and the limits on Path 15 were biased nearly 20% of the hours).

Dynergy does not yet fully understand the implications of this practice. However, like with selectively enforcing constraints, it seems apparent that this practice seems to compensate for the model’s inability to project results that match real-world conditions. (Either that, or there are gross telemetry errors in the CAISO’s EMS; Dynergy suspects the former, not the latter is at fault). Nevertheless, it is difficult for market participants to fully see and understand the extent and implications of this practice.

Inasmuch as the purpose of this discussion is to identify what kinds of information market participants wish to see from the CAISO in regards to this practice, Dynergy offers that the CAISO could present a regular OASIS report indicating: (1) which transmission limits were “adjusted”, (2) the reason for the adjustment; (3) the price effects of such adjustments; and (4) what actions are being taken to reduce the need for that particular adjustment.

Constraint/Contingency Lists

The information providing on which constraints are enforced is important to market participants in two ways: First, it allows them to anticipate how the CAISO’s network model affects the prices that the CAISO’s market produces, and, in so doing, optimize their own bidding strategy (e.g., to consider the costs, including the opportunity costs, of taking or deferring short-term maintenance, or buying or selling gas). Second, providing information on constraint enforcement engenders market participant confidence in the CAISO’s transparent, non-discriminatory operation of its markets and allocation of transmission service through its markets.

Dynergy prefers that a “reference” or “base” case framework augmented by incremental time based topology, constraint, and contingency changes be adopted with regard to providing stakeholders pertinent decision making information associated with participation in the ISO markets.

Dynergy suggests that the existing practices and formats of releasing updates to the Full Network Model (FNM) serve as a starting point for such a framework where each new release for the FNM establishes a new reference case going forward in the ISO markets.

Dynergy suggests that incremental updates to the reference case be time based according to a timeline derived from known changes in topology, constraint,

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contingencies, etc. Again, Dynegy suggests that each release of the FNM is the logical choice for reference case since it should already have captured a 30 day advanced schedule of planned outages according to the CRR BPM. Daily on-peak/off-peak and/or hourly time based incremental change sets could then be provided in advance of the forward markets to market participants to capture the latest topology, constraint, and contingency information applied to the reference case prior to market trading.

Dynegy suggests that every intervention or exception from fundamental market processes be identified, documented, and posted (e.g., “the start-up of one or more use-limited resources” as described in item 3 on page 10 of the subject paper “in anticipation that the contingency or other event causing the constraint to bind . . .” should identify to the market the resources called on for mitigation by the ISO, the reason for such action, etc.).

In the interest of transparency, Dynegy requests that all enforceable nomograms be made accessible to stakeholders who have executed a NDA for the FNM.

Dynegy regrets that, at this time, it cannot provide specific feedback building off the information release practices of the other ISOs.

Information on Binding Constraints and Cause

Dynegy would like the CAISO to provide the time, the duration, the congested facility, the facility whose contingency caused the congestion (if applicable) and the congestion shadow price consistent with the information provided by PJM, the MISO and NYISO.