Citigroup Energy Inc. Comments

Renewables Integration Market and Product Review Phase 2 Straw Proposal

Submitted by: Kolby Kettler
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Citigroup appreciates the opportunity to comment on the "Renewables Integration Market and Product Review Phase 2 Straw Proposal." With the hurdles of renewable integration, we are encouraged that we are moving forward in resolving certain market inefficiencies in an effort to develop a more efficient, liquid and transparent market.

Background:

The CAISO has issued a straw proposal that address many significant enhancements within the existing nodal market. These enhancements stem both from the lofty and quick renewable integration timelines coupled with the continued need for ramping flexibility, liquidity, transparency, market efficiency and reliability.

Citigroup looks to be an active participant within this stakeholder process and encourages the CAISO to work collectively with market participants in developing significant final enhancements that will sustain the future of the CAISO market.

Citigroup Proposal - Task force/Working Group (to address intertie settlements):

With the CAISO's continued reliance on the interties and the immediate need to develop intertie settlement changes that encourage proper behavior and operational soundness, it is imperative we complete a comprehensive evaluation of any and all possible solutions to this enhancement opportunity.

We propose the CAISO to construct a "task force" or working group, comprised on market participants who are willing to dedicate time and effort into discussing optimal short-term and long-term solutions.

Task force:

- Define the purpose and goals of the group
- Define a timeline, agenda and expectations of the working group
- Immediately begin face to face task force meetings

Properly implementing a task force or working group to address the intertie settlement items is imperative in achieving the following:

- Open and honest face to face discussions to optimize time and effort of all participating
- Accountability
- Proper measurement of risks
- Transparency into the process, ideas and solutions
    - Ideas, thoughts and solutions will be discussed openly for constructive feedback, and proper vetting

Comments on Straw Proposal

Cost Allocation/Cost Causation

Citigroup understands that cost allocation/cost causation is an enormous undertaking that could significantly change certain market participants fixed and floating cost obligations. We do feel that proper cost allocation/cost causation is the best “method” for distributing the costs of managing the system back to the market participants however, due to the potential significant impacts of changing these allocations, this should be an extensive stakeholder process. We do believe this enhancement, of properly distributing the costs, will have many short-term hurdles, but longer-term benefits will prevail.

NYISO settlement of interties (as proposed):

We believe there is significant due diligence needed to determine if the NYISO’s approach to the CAISO interties would be palatable for sufficient operational flexibility and liquidity in managing over generation situations, as well as general management of static schedules within a nodal verses zonal market system.

Citigroup believes that the CAISO should consider a vast array of ideas in contemplating the most optimal solutions for this issue. Citigroup does not believe that another ISO (example: NYISO) has a full solution that meets the operational and reliability needs and expectations of the CAISO and its market participants. We believe that there are certain aspects of the different ISO’s processes and models that should be discussed and contemplated, but a hybrid approach, or the ability to consider an optimal solution outside of another ISO’s approach, should be considered.

15 minute scheduling or interval (5, 10 or 15 minute) scheduling:

Whereas this is a novel idea, the CAISO needs to understand that it is contemplating a change in scheduling what would impact many WECC organizations by requesting a significant change in behavior and how market participants manage their portfolios. This option should be evaluated, but considered a long-term solution that would need significant coordination. Citigroup would also point out the fact that other ISO’s that have implemented 15 minute scheduling at their interties have experienced many operational issues mandating subsequent revisions to their scheduling practices.

For example:

- *MISO implemented 15 minute scheduling and minimum flow time of 15 minute duration of a tag, and subsequently moved to the following:
  - MISO will only allow tags a ½ hour before start of an hour (does not allow for tagging within the hour)
  - Must be available ramping capability
  - MISO’s minimum amount of time for a flow of a tag is 15 minutes
- *PJM’s minimum duration of a schedule is 45 minutes and allows schedules to begin at any 15 minute interval if ramping is available – Adjusted from initial implementation

*Presented by the Market Subcommittee & Seams Management Working Group in March 2011

Bid Cost Recovery (as proposed):

The CAISO has continued to discuss openly, the need for "depth" and liquidity at the interties, so management of the interties are flexible and feasible for general operations and reliability. The CAISO continues to discuss the intertie’s importance when evaluating renewable integration and therefore, it is unclear why the CASIO would suggest not providing Bid Cost Recovery (“BCR”) for exports of energy.

The proposal (and current status of the CAISO) of limiting BCR only to imports, or resources, has a cascading impact if market participants are expected to settle at the real-time clearing price.

CAISO decision to not provide BCR for exports of energy will have the following “cascading” impacts:

Market Participant Behavior:

- Market participants will determine if they are willing to participate in the new real-time market based on their ability to manage risk and price volatility.
  - Market participants will limit export bids due to the inability to manage price risk around exports in the real-time – CAISO’s proposal for exports places extreme price risks on transaction that market participants, once obligated to flow, would have no recourse or ability to manage.
  - Market participants could remove all export bids in times of volatile real-time market pricing fluctuations.

Operational impacts:

- Operators, when managing the system, will have reduced options at the interties.
  - General management, renewable integration and over generation situation – as mentioned above, the lack of BCR for exports will reduce bids or “depth” of liquidity at the interties, and this reduction or elimination of bids, will significantly limit operator’s options when managing the system.

Market impacts:

- Because of renewable integration, over generation and BCR limitations, the market could experience events that lead to the following:
  - Continued manual biasing
  - Improper pricing signals
  - Avoidable market mitigation
  - Reliability uncertainty
  - Exceptional dispatch
- These market events could have significant dollar impacts surrounding uplift, and other variable charges

Would the CAISO be willing to address the pros and cons of BCR for measured demand within a task force/working group?

Off-peak and On-peak Products:

Citigroup is very uncertain why the CAISO would propose options for the off-peak hours and not on-peak. The presentation was not sufficient in providing the purpose and reasons for having products in off-peak versus on-peak. The presentation never thoroughly discusses the pros and cons related to this idea and the potential for discriminating against market participants that mainly transact in certain hours of the day and therefore could be disadvantaged

PIRP:

Allowing Participating Intermittent Resource Program (“PIRP”) resources to submit Decremental (“DEC”) bids in conjunction with hour-ahead schedules:

1) Could this impact the real-time imbalance energy offset charge or other potential uplift?
2) Would PIRP resources be fully responsible for any real-time imbalance energy offset contribution made via this process or any uplift contributed based on the “dec’ed” deviations?

3) Would the CAISO consider a similar product for non-PIRP market participants where any market participant could DEC bid based on portfolio needs and market signals?
4) Would PIRP resources be fully responsible for any RTIEO costs or uplift if they did not DEC and the resource was subject to non-economic curtailment?
5) Are self-schedules that are subject to non-economic curtailments subject to their contribution to uplift?

Other:

Why would a resource not be charged its uplift or system contribution costs based on the fact that it is "moving in the right direction" but still deviating from its schedule?

   a. Would this not contradict the whole idea of "cost causation?"