Proposal to Increase Market Efficiency

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The Proposal

- The following two changes are proposed to promote convergence and market efficiency by encouraging supply and load to schedule day ahead. They would eliminate deviation penalties incurred when scheduling real-time financially settled hedges in the day-ahead market.

1) For supply, allow the quantity of DEC bids submitted by Market Participants with physical supply to be exempt from deviation charges up to the quantity of physical supply that was settled in the day ahead market. DEC bids would have to be entered at West Hub, the supply resource bus or some other liquid location where hedging might occur. Any DEC bids in excess of physical supply settled day ahead would incur deviation charges per the current rules.

2) For load, allow the quantity of INC offers submitted by Market Participants with physical load to be exempt from deviation charges up to the quantity of physical load that was settled in the day ahead market. INC offers would have to be entered at West Hub, the load bus or some other liquid location where hedging might occur. Any INC offers in excess of physical load settled day ahead would incur deviation charges per the current rules.

The Problem

- Many market participants with physical supply or physical load employ risk management strategies that involve forward financial sales and purchases. PJM market rules should permit the execution of these strategies without financial penalty.
- Both physical supply and physical load will hedge using contracts that settle financially and predominantly against the real-time index. These are most liquid.
- Both physical supply and physical load are strongly encouraged to participate in the day ahead market .(Requirement for Capacity Resources to offer Day Ahead. Demand incurs a deviation charge on load not bid Day Ahead.)
- Prudent risk management suggests that the hedges for physical supply or load (predominantly real-time financially settled) and the physical supply or load (predominantly day ahead settled) should clear the same market.

The Problem (cont'd)

- Over time, more and more bilateral hedge transactions are financially settled rather than physically settled.
- A key difference between financial and physical transactions is that physical transactions appear in eSchedules, while financial transactions do not.
- For the most part bilateral hedge transactions settle against the real-time index. There is not much liquidity in the day ahead settled product.
- Physical transactions (shown in eSchedules) that are moved from real-time market to day ahead CAN avoid paying deviation charges.
- Financially settled transactions (not shown in eSchedules) that are moved from real-time market to day ahead CANNOT avoid paying deviation charges.

Physical Load Options

- If physical load with real-time financially settled hedge purchases wants its load and its purchases to settle in the same market, it has two options:
  1) One option is to bid the load day ahead, and submit INC offers for the real-time financially settled hedges, thus incurring deviation charges (on the INCs) AND day ahead operating reserve charges (on the Demand Bids).
  2) Another is to NOT bid the load day ahead, thus incurring an equivalent deviation charge (on the Demand Bids), but avoiding the day ahead operating reserve charge, and to NOT submit INCs, leaving their hedges in real-time (no deviation charge incurred on INCs).
- The second option saves them the day ahead operating reserve charge, but causes divergence between day ahead and real time.

Physical Supply Options

- If physical supply with real-time financially settled hedges wants its supply and hedge sales to settle in the same market, it has two options:
  1) One is to bid and settle their supply (mainly capacity resources) in the day ahead market. Then their real-time financially settled sales will have to be moved to day ahead. This could be accomplished by DEC bidding up to the amount of their hedge sales. They would incur a day ahead operating reserve charge on these DECs. They would also incur a deviation charge on these DECs.
  2) Another option would be to somehow “cause" their supply not to clear in the day ahead market. Then their supply and hedges would both settle in real time, and they would avoid the deviation charge (assuming they follow dispatch) AND the day ahead operating reserve charge.
- The second option costs nothing, but causes divergence between day ahead and real time.

Facts/Observations

- These deviation charges can be significant. For example, at an average rate of $0.82/MWH, a fully hedged 5000 MW position could incur deviation charges of roughly $36 million per year.
- In addition to funding operating reserves, deviation charges are also intended to provide appropriate incentives.
- In this particular instance, these deviation charges do not promote appropriate behavior, they promote divergence.
- To the extent divergence occurs, it can be reversed by virtual activity, but only to the point where the price difference equals the deviation charge.
- Virtual activity does promote convergence. However, maintaining a market structure that promotes divergence so that virtuals can profit from removing the divergence is suboptimal.

The Proposal

- Promote convergence and market efficiency by encouraging supply and load to schedule day ahead by eliminating deviation penalties incurred when scheduling real-time financially settled hedges in the day-ahead market.

1) For supply, allow the quantity of DEC bids submitted by Market Participants with physical supply to be exempt from deviation charges up to the quantity of physical supply that was settled in the day ahead market. DEC bids would have to be entered at West Hub, the supply resource bus or some other liquid location where hedging might occur. Any DEC bids in excess of physical supply settled day ahead would incur deviation charges per the current rules.

2) For load, allow the quantity of INC offers submitted by Market Participants with physical load to be exempt from deviation charges up to the quantity of physical load that was settled in the day ahead market. INC offers would have to be entered at West Hub, the load bus or some other liquid location where hedging might occur. Any INC offers in excess of physical load settled day ahead would incur deviation charges per the current rules.