

DER Market Participation: Considerations for Injections from Demand Response

Pete Langbein and Andrew Levitt
MRC Special Session on DER
October 12, 2016

- Current PJM rule: customer cannot inject past applicable meter when in market as PJM Demand Response.
- What are the considerations/issues if this rule is partly or entirely stricken?
- Let's call it: "Demand response with injections"
- This approach has been in place at ISO New England since 2015 with the same conventional DR math, except load can go negative (i.e., can inject).
 - Performance is based on delta between Customer Baseline and metered load (including injections)
- Recommendation: consider implications of DR with injections in PJM as a way to expand DER's ability to participate in the wholesale market.

- Considerations vary by market:
 - Ancillary Services
 - Capacity
 - Energy

- Must be able to ensure injection (or ability to inject) will not create any issues for the distribution system.
- Today, Demand Response resources are not settled on energy when providing ancillary services.
- This approach, extended to DR with injections, obviates considerations of appropriate accounting and settling for energy.
- No double counting issues
 - Customers are not paid for Regulation or SR in retail market or do not save money on their retail electricity bill.

- Wholesale energy injections from PJM generation/storage units are precisely monitored, metered, and settled.
- Non-wholesale energy injections have an impact on wholesale load settlements (see e.g., results of Net Energy Metering Senior Task Force)
 - Can reduce apparent load and reduce Load Serving Entity wholesale costs
 - Can shift costs among entities in the load zone
 - Different accounting options
- Is an injected MWh from Demand Response a wholesale energy injection (like a generator), or a non-wholesale energy injection (like Net Energy Metering)?
 - If the latter: does the DR resource get paid LMP and keep the NEM credit? Does PJM adjust the energy payment to the DR resource to reflect NEM credit? Does the LSE keep the cost reduction?
 - Other double counting considerations

- Stay tuned...

- Which Interconnection Process?
 - Safety and reliability must be ensured by way of interconnection study and requirements.
 - FERC or state jurisdiction?
 - Who leads: PJM or Electric Distribution Company?
 - Is a PJM deliverability study required?
 - Size limit?