Update on the Distributed Energy Resource Subcommittee

Andrew Levitt
Applied Innovation
August 3, 2017 Special Markets Implementation Committee Energy Storage Final Order
ESR Charging Energy and DERS

1. Topic of “ESR charging energy” for ESR-DER that interact with retail customers postponed at DERS until after compliance deadline.
   - Avoid prejudging outcome of compliance filing and feedback process.
   - Details of methods to identify types of ESR charging energy are expected in manuals, so not part of compliance filing.

2. Definition of different types of charging energy to be presented to both DERS and MIC-ESR for feedback.
   - Internal brainstorm near complete, will present at September MIC-ESR.
Other DERS Matter of Interest

- For PJM generators (incl. ESR) located behind a customer and selling “net excess” energy into PJM
  - How to offer and measure ancillary services?
- Allow submeter for Regulation instead of POI?
- Allow negative values for Synch Reserve?
- How to treat load curtailments?

<table>
<thead>
<tr>
<th>Synch reserve</th>
<th>Pre-event</th>
<th>In event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross ESR</td>
<td>4 MW</td>
<td>10 MW</td>
</tr>
<tr>
<td>Gross load</td>
<td>9 MW</td>
<td>8 MW</td>
</tr>
<tr>
<td>Net at POI</td>
<td>-5 MW (load)</td>
<td>+2 MW (gen)</td>
</tr>
<tr>
<td>Performance</td>
<td>1? 6? 7?</td>
<td></td>
</tr>
</tbody>
</table>

Utility grid

POI Meter

Submeter

DER customer

ESR

LOAD
Other DERS Matter of Interest

- Review of PJM interconnection process for DER (incl. ESR) that inject onto the grid and want to sell to wholesale markets.