February 22, 2013

Black Start Compensation Considerations

PJM System Restoration Strategy Task Force
ISO-NE Approach

- Similar conceptual approach to compensation as in PJM:
  - Voluntary service
  - “But for” costs
  - Developed rates based on incremental proxy costs for black start service
  - Permits Sec 205 filing by generator if proxy is not sufficient to meet incurred costs
- 3rd party consultant provided bottom-up calculation to create proxy cost to provide black start service
- Formula rate includes CapEx, O&M, and CIP costs
- Example 20 MW unit compensation:

<table>
<thead>
<tr>
<th>Size of Unit</th>
<th>MVA</th>
<th>PJM</th>
<th>Notes</th>
<th>New England</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>20MW</td>
<td>10-60</td>
<td>$ 40,153</td>
<td>20 MW Unit, 2012/13 Formula rate only; no CIP costs</td>
<td>$941,600</td>
<td>20 MW Unit, Formula rate; Includes CIP formula rate</td>
</tr>
</tbody>
</table>
NYISO Approach

- Similar conceptual approach to compensation as PJM:
  - “But for” costs
  - Developed rates based on incremental proxy costs for black start service
  - Permits Sec 205 filing by generator if proxy is not sufficient to meet incurred costs
- 3rd party consultant utilized to determine costs; borrowed from ISO-NE bottom-up calculation to determine proxy cost of black start service
- Formula rate includes CapEx, O&M; opportunity to capture actual CIP costs similar to PJM
- Example 20 MW unit compensation comparison:

<table>
<thead>
<tr>
<th>Size of Unit</th>
<th>MVA</th>
<th>PJM</th>
<th>Notes</th>
<th>New York</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>20MW</td>
<td>10-60</td>
<td>$40,153</td>
<td>20 MW Unit, 2012/13 Formula rate only; no CIP costs</td>
<td>$256,865</td>
<td>20 MW Unit, Formula rate only; no CIP costs</td>
</tr>
</tbody>
</table>
For Consideration

- Do we appropriately value black start under the proposed strategy?
- Does the proposed strategy fully address the concerns stated in the charter?
- Should we consider a 3rd party bottom-up cost review?
- Should we consider simplifying assumptions and borrow from work done by others before us?
- What other compensation alternatives are available?