Netting Education

EMUSTF
January 29, 2015
– Supplier Netting at the Bus
  • Recognize that generator injections at the same bus are electrically equivalent as far as their impact on the system.

  • Generators that deviate from RT dispatch may offset deviations by another generator at the same bus.

  • For deviations purposes, these two units will look like one unit.
Supplier Netting Example

Generators A and B are located at the same bus. Both generators are deemed to be “not following dispatch” for a given hour.

<table>
<thead>
<tr>
<th></th>
<th>Station A 138KV ST1</th>
<th>Station A 138KV ST2</th>
</tr>
</thead>
<tbody>
<tr>
<td>RT Desired MW</td>
<td>100</td>
<td>200</td>
</tr>
<tr>
<td>RT Output (MW)</td>
<td>112</td>
<td>178</td>
</tr>
<tr>
<td>Deviation (MW)</td>
<td>12</td>
<td>-22</td>
</tr>
</tbody>
</table>

Deviation MW at the Bus:

\[12\text{MW} + (-22\text{MW}) = -10\text{MW}\]

(5% or 5 MW of Desired is calculated at the individual generator level prior to netting the two deviations. In this case, both units are considered deviating.)

Total MWs subject to BOR charges: 10MW
Balancing Operating Reserve Charges Applied to:

**Day-Ahead**

- Cleared Decrements, DA Load, Sales/Export
  - By Zone, by Hub, by Interface

**“Bucket 1”**

- Net Deviation of total

**Real-Time**

- RT Load, Sales/Export
  - By Zone, by Hub, by Interface

**“Bucket 2”**

- Cleared Increments, Purchases/Imports
  - By Zone, by Hub, by Interface

- Net Deviation of total

**“Bucket 3”**

- DA Scheduled Generation
  - By Zone, by Hub, by Interface

- Individual deviation on each generator not following dispatch

- RT Generation

By Zone, by Hub, by Interface
Operating Reserve Deviation Summary Report

RT Imports + RT Bilateral Purchases
DA Increment Offers + DA Imports + DA Bilateral Purchases
Op Res Injection Deviation

Op Res Generation Deviation

RT Load + RT Exports + RT Bilateral Sales

Op Res Locational Total Deviation

DA Decrement Bids + DA Demand Bids + DA Load Response Bids + DA Exports + DA Bilateral Sales

Op Res Withdrawal Deviation


\[ \sum (\text{Supplier Netted Deviation MWh within transmission zone}) \]
Proposed Transaction Netting Options

- Resources (Gen, Economic DR, and imports) cleared in Day-ahead
- Resources (Gen, Economic DR, and imports) not cleared in Day-ahead and committed up to and including RT
  - Status quo + netting of multiple categories (types) of transactions within the same hour if transacted by same market participant at the same location
Proposed Generation Netting Options

• Resources (Gen, Economic DR, and imports) not cleared in Day-ahead and committed up to and including RT
  – Status quo + alter generator deviation netting logic to include full netting of deviations under scenarios where a resource replacing another is following dispatch and incurred no deviation