Preliminary LCR Results

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ICAPWG

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Agenda

- Review Net CONE
- Review Transmission Security Limits (TSLs) for 2022
  - Using the Goldbook load forecast
- Preliminary LCR Results
- Next Steps
Background

- Each year the NYISO produces preliminary LCR values for informational and discussion purposes.
  - The process used to produce these preliminary LCRs follows the process used to determine final LCRs, i.e., the optimized LCR method.

- This presentation provides preliminary LCR values using the NYSRC IRM Preliminary Base Case and other preliminary inputs (e.g., Net CONE Curves).

- Data updates will occur, such as the finalization of the NYSRC IRM case, before the final LCRs are determined by the NYISO.
2022 Preliminary Net CONE Curves

- Net CONE updated consistent with FERC order
- Associated Proxy Units:
  - NYCA: 326.7 MW
  - Zones G-J: 347.0 MW
  - Zone J: 348.8 MW
  - Zone K: 348.8 MW
### 2022 Preliminary TSL Values (Old Method)

#### Preliminary Base Case TSL calculations

<table>
<thead>
<tr>
<th>Transmission Security Requirements</th>
<th>Formula</th>
<th>GHIJ</th>
<th>NYC</th>
<th>LI</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Load Forecast (MW)</td>
<td>([A] = \text{Given})</td>
<td>15,453*</td>
<td>11,286*</td>
<td>5,191.6*</td>
<td>2022 Goldbook Forecast</td>
</tr>
<tr>
<td>Minimum UCAP Needed (MW)</td>
<td>([C] = [A]-[B])</td>
<td>12,053</td>
<td>8,086</td>
<td>4,841</td>
<td></td>
</tr>
<tr>
<td>UCAP Needed Percent</td>
<td>([D] = [C]/[A])</td>
<td>78.00%</td>
<td>71.65%</td>
<td>93.26%</td>
<td></td>
</tr>
<tr>
<td>5 Year EFORd</td>
<td>([E] = \text{Given})</td>
<td>9.57%</td>
<td>7.99%</td>
<td>9.12%</td>
<td>2022 EFORd from PBC</td>
</tr>
<tr>
<td>ICAP Needed (MW)</td>
<td>([F] = [C]/(1-[E]))</td>
<td>13,328</td>
<td>8,788.4</td>
<td>5,327.5</td>
<td></td>
</tr>
<tr>
<td>ICAP Floor Requirement (TSLs)</td>
<td>([G] = [F]/[A])</td>
<td><strong>86.3%</strong></td>
<td><strong>77.9%</strong></td>
<td><strong>102.6%</strong></td>
<td>2022 Prelim TSLs (Old method)</td>
</tr>
</tbody>
</table>

* This value includes the ACHL from BTM:NG in Zone J (21.3 MW) and Zone K (42.0 MW)
# 2022 Preliminary TSL Values (New Method)

<table>
<thead>
<tr>
<th>Transmission Security Limit</th>
<th>Formula</th>
<th>GHJ</th>
<th>NYC</th>
<th>Long Island</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Load Forecast (MW)</td>
<td>([A] = \text{Given})</td>
<td>15453.0</td>
<td>11286</td>
<td>5192</td>
<td>Load forecast used in 2021 TSL determination. The proposed TSL method enhancements do not affect this parameter.</td>
</tr>
<tr>
<td>Transmission Security Limit (MW)</td>
<td>([B] = \text{Studied})</td>
<td>3425.0</td>
<td>2900</td>
<td>325</td>
<td>Bulk power transmission capability into the Locality consistent with reliability rules, less generation source contingencies (NYC: Ravenswood 3. LI: Neptune).</td>
</tr>
<tr>
<td>Resource Unavailability (MW)</td>
<td>([C] = \text{Given})</td>
<td>492.0</td>
<td>407</td>
<td>37</td>
<td>Special Case Resources, July 2021 enrollments per NYSRC IRM Study. SCR's do not contribute to transmission security under normal transfer criteria.</td>
</tr>
<tr>
<td>ICAP Requirement (MW)</td>
<td>([D] = [A] - [B] + [C])</td>
<td>12,520</td>
<td>8,793</td>
<td>4,904</td>
<td></td>
</tr>
<tr>
<td>ICAP Requirement Floor (%)</td>
<td>([E] = \text{ROUND}([D]/[A], 1))</td>
<td>81.0%</td>
<td>77.9%</td>
<td>94.5%</td>
<td></td>
</tr>
</tbody>
</table>

Values include the ACHL from BTM:NG in Zone J (21.3 MW) and Zone K (42.0 MW)

Final 2021 LCR Results - Comparison

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<tr>
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<th>NYCA IRM</th>
<th>G-J</th>
<th>NYC</th>
<th>LI</th>
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<tbody>
<tr>
<td>2021 FBC LCRs</td>
<td>20.7%*</td>
<td>88.7%</td>
<td>80.6%</td>
<td>102.9%**</td>
</tr>
<tr>
<td>2021 Final LCRs</td>
<td>20.7%*</td>
<td>87.6%</td>
<td>80.3%</td>
<td>102.9%**</td>
</tr>
<tr>
<td>* deltas</td>
<td>0.0%</td>
<td>-1.1%</td>
<td>-0.3%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

* Determined by ICS Tan 45 Process

** The TSL Limit for Long Island was binding

The final LCRs were approved in January 2021 and are effective for the 2021-2022 Capability Year
# Preliminary 2022 LCR Results

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<td>2022 PBC Tan45</td>
<td>18.6%*</td>
<td>90.2%</td>
<td>80.6%</td>
<td>96.1%</td>
</tr>
<tr>
<td>2022 Prelim LCRs (old TSL)</td>
<td>18.6%*</td>
<td>86.4%</td>
<td>79.0%</td>
<td>102.6%**</td>
</tr>
<tr>
<td>2022 Prelim LCRs (new TSL)</td>
<td>18.6%*</td>
<td>90.8%</td>
<td>81.2%</td>
<td>94.7%</td>
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* Determined by ICS Tan 45 Process

** The TSL Limit for Long Island was binding
TSLs in the LCR setting process

- Consistent with discussions at the 6/30 and 9/9 ICAPWG meetings, the NYISO will update the method it uses to determine TSLs for the 2022-2023 Capability Year LCR determination process
  - These updates will align the LCR TSL setting process with Transmission Security analysis conducted for Planning purposes

- The following slide shows the 2021 final LCRs (for the 2021-2022 Capability Year) and the 2022 preliminary LCRs
## Comparison of LCRs

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** The TSL Limit for Long Island was binding
2022 Preliminary LCR Results

- **IRM Decreased; factors include:**
  - Reduction in LFU
  - Lower non-coincident peaks in forecast

- **G-J LCR**
  - Value impacted by updated LFU and Load
  - Upward pressure on G-J LCR due to reduction in K TSL and associated drop in K LCR
2022 Preliminary LCR Results (cont.)

- **J LCR**
  - Value impacted by updated LFU and Load
  - Small upward pressure from the K TSL and associated LCR drop

- **K LCR**
  - TSL decreased and was no longer binding
Next Steps

- **Finalize the IRM database**
  - NYSRC scheduled to approve the final IRM in early December
  - The NYSRC updates the IRM if a material system change occurs

- **Finalize Net CONE Curves**
  - NYISO posts Demand Curve Reset Annual Update results by November 30

- **Finalize TSLs in October**
  - NYISO to post TSL report which will contain final TSL values using the new TSL setting method
  - NYISO to update the load forecast to be consistent with the final IRM load forecast
  - NYISO to post an updated LCR procedure reflecting the updated TSL method

- **Provide updated preliminary LCRs in mid-December**
  - Consistent with previous discussions at ICAPWG and procedural updates, NYISO will utilize the final IRM database to determine final LCRs and will discuss those results with stakeholders in mid-December.
  - Unless the NYSRC updates the IRM after its initial approval, these preliminary LCRs will be presented to the Operating Committee for approval in January

- **Present final LCRs to the NYISO Operating Committee in January 2022**
Questions?
Questions or comments can be sent to IRM@nyiso.com
Our mission, in collaboration with our stakeholders, is to serve the public interest and provide benefit to consumers by:

- Maintaining and enhancing regional reliability
- Operating open, fair and competitive wholesale electricity markets
- Planning the power system for the future
- Providing factual information to policymakers, stakeholders and investors in the power system