2017 Final LCR Study Results
Summary of Findings

Catalin Micsa
Senior Advisor Regional Transmission Engineer

Stakeholder Call
April 14, 2016
LCR Areas within CAISO
Input Assumptions, Methodology and Criteria

See October 29, 2015 stakeholder teleconference - for study assumptions, methodology and criteria. The latest information along with the 2017 LCR Manual can be found at: http://www.caiso.com/informed/Pages/StakeholderProcesses/LocalCapacityRequirementsProcess.aspx.

Transmission system configuration – all-projects with EDRO up to June 1, 2017
Generation – all-generation with COD up to June 1, 2017
Load Forecast – 1 in 10 local area peak (based on latest CEC forecast)
Criteria – see report for details

Methodology

1. Maximize Imports Capability into the local area
2. Maintain path flows
3. Maintain deliverability for deliverable units
4. Load pocket – fix definition
5. Performance levels B & C (if equal category B is most stringent)
Major Changes from last year studies

1. New NQC data.
2. Total LCR needs have decreased by 790 MW or ~ 3.1%.
3. 2017 LCR needs decrease in: Humboldt, Stockton, Fresno and Big Creek/Ventura due to decrease in load forecast and LA Basin due to load forecast and transmission projects.
4. 2017 LCR needs increase in: Sierra due to deficiency increase, Bay Area due to increase in deficiency and new South Bay-Moss Landing sub-area, North Coast/North Bay due to lower Pittsburg/Oakland sub-area requirements, Kern due to transmission projects, redefinition and new limiting contingency and San Diego due to cancellation of previously planned upgrade projects connecting to the Imperial Valley 230 kV sub.

Role and Purpose of sub-area LCR needs:
- Provide detail local procurement information
- Need to be satisfied in order to minimize ISO back-stop
- Sum of the parts may not equal the overall need
## Total 2017 Final LCR Needs

<table>
<thead>
<tr>
<th>Local Area Name</th>
<th>Qualifying Capacity</th>
<th>2017 LCR Need Based on Category B</th>
<th>2017 LCR Need Based on Category C with operating procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>QF/ Muni (MW)</td>
<td>Market (MW)</td>
<td>Total (MW)</td>
</tr>
<tr>
<td>Humboldt</td>
<td>20</td>
<td>198</td>
<td>218</td>
</tr>
<tr>
<td>North Coast / North Bay</td>
<td>128</td>
<td>722</td>
<td>850</td>
</tr>
<tr>
<td>Sierra</td>
<td>1176</td>
<td>890</td>
<td>2066</td>
</tr>
<tr>
<td>Stockton</td>
<td>149</td>
<td>449</td>
<td>598</td>
</tr>
<tr>
<td>Greater Bay</td>
<td>1070</td>
<td>8792</td>
<td>9862</td>
</tr>
<tr>
<td>Greater Fresno</td>
<td>231</td>
<td>3072</td>
<td>3303</td>
</tr>
<tr>
<td>Kern</td>
<td>60</td>
<td>491</td>
<td>551</td>
</tr>
<tr>
<td>LA Basin</td>
<td>1615</td>
<td>8960</td>
<td>10575</td>
</tr>
<tr>
<td>Big Creek / Ventura</td>
<td>543</td>
<td>4920</td>
<td>5463</td>
</tr>
<tr>
<td>San Diego/ Imperial Valley</td>
<td>239</td>
<td>5071</td>
<td>5310</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>5231</td>
<td>33565</td>
<td>38796</td>
</tr>
</tbody>
</table>
2017 LCR Study Schedule

CPUC and the ISO have determined overall timeline

- Submit comments by November 12, 2015
- Posting of comments with ISO response by the December 1, 2015
- Base case development started in December 2015
- Receive base cases from PTOs January 3, 2016
- Publish base cases January 15, 2016 – comments by the 29th
- Draft study completed by March 14, 2016
- ISO Stakeholder Meeting March 21, 2016 – comments by the 4th
- ISO receives new operating procedures April 4, 2016
- Validate op. proc. – publish draft final report April 11, 2016
- ISO Stakeholder Web Conf. April 14, 2016 – comments by the 28th
- Final 2017 LCR report May 2, 2016
2016 ISO Procurement Schedule

Per ISO Tariff and BPM - overall timeline
– Final LCR Report May 2, 2016
– LSE self-guided local allocation; first week in May, 2016
– Receive new CEC coincident load forecast June 30, 2016
– ISO or CPUC to send out final local allocation; middle of July, 2016
– If Oakland under contract; LSEs to submit showings by 9/15/2016
– ISO to decide on retaining units under RMR by October 1, 2016
– Final LSE showings TBD – Usually last week of October, 2016
– ISO to send a market notice out stating deficiencies in procurement – about 3 weeks after final showing - about November 21, 2016
– ISO receives additional showing (30 days after market notice)
– ISO to enter back-stop procurement for local reasons (if needed)

Your comments and questions are welcome.

For written comments, please send to: RegionalTransmission@caiso.com