

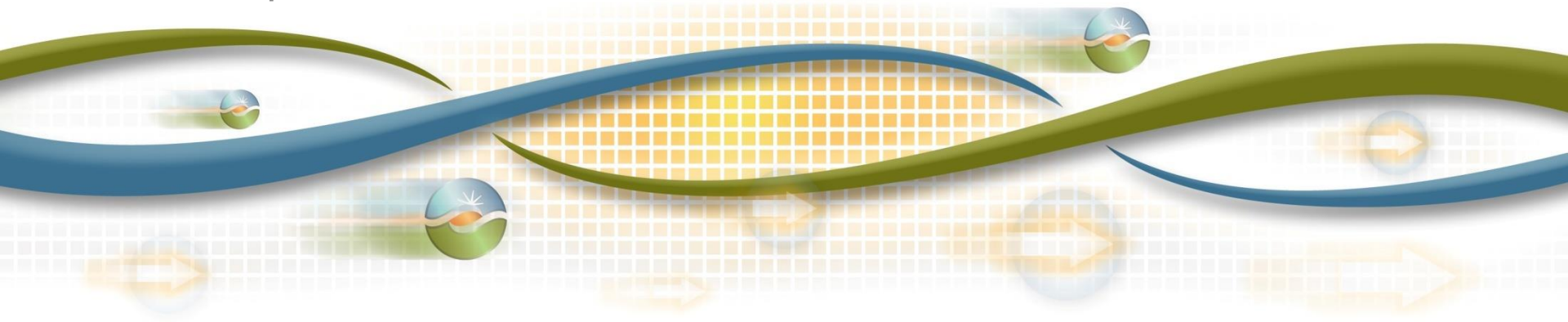
2017 Final LCR Study Results Summary of Findings

Catalin Micsa

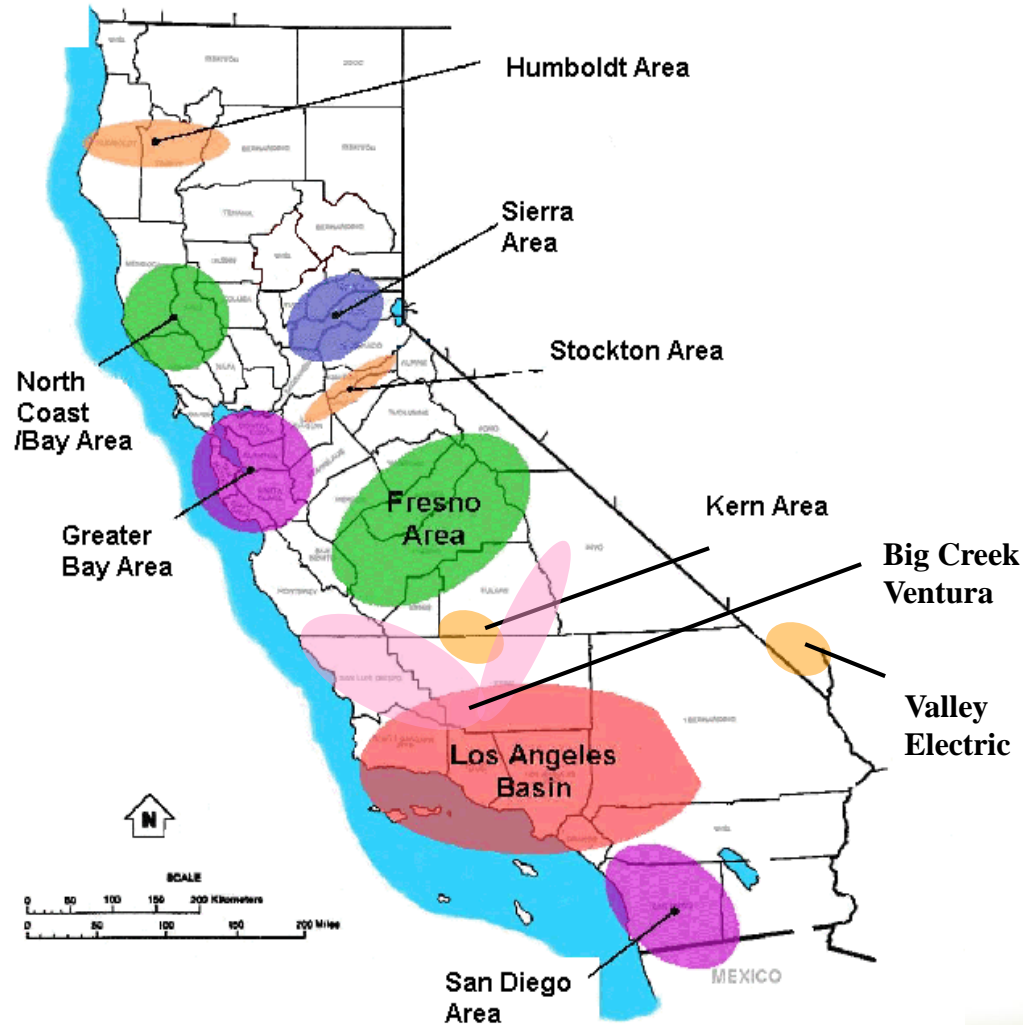
Senior Advisor Regional Transmission Engineer

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

Local Area Name	Qualifying Capacity			2017 LCR Need Based on Category B			2017 LCR Need Based on Category C with operating procedure		
	QF/ Muni (MW)	Market (MW)	Total (MW)	Existing Capacity Needed	Deficiency	Total (MW)	Existing Capacity Needed	Deficiency	Total (MW)
Humboldt	20	198	218	110	0	110	157	0	157
North Coast / North Bay	128	722	850	721	0	721	721	0	721
Sierra	1176	890	2066	1247	0	1247	1731	312	2043
Stockton	149	449	598	340	0	340	402	343	745
Greater Bay	1070	8792	9862	4260	232	4492	5385	232	5617
Greater Fresno	231	3072	3303	1760	0	1760	1760	19	1779
Kern	60	491	551	137	0	137	492	0	492
LA Basin	1615	8960	10575	6873	0	6873	7368	0	7368
Big Creek/ Ventura	543	4920	5463	1841	0	1841	2057	0	2057
San Diego/ Imperial Valley	239	5071	5310	3570	0	3570	3570	0	3570
Total	5231	33565	38796	20859	232	21091	23643	906	24549

2017 LCR Study Schedule

CPUC and the ISO have determined overall timeline

- Criteria, methodology and assumptions web conf. Oct. 29, 2015
- 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