

## Subject: 2018 & 2022 Draft LCR Results Presentation and Stakeholder Meeting

Submitted by	Company	Date Submitted
<i>Michele Kito, mkl@cpuc.ca.gov</i> <i>Jaime Gannon, jrg@cpuc.ca.gov</i>	<i>Energy Division</i> <i>California Public Utilities</i> <i>Commission</i>	<i>March 23, 2017</i>

The CPUC Staff appreciate the opportunity to comment on the California Independent System Operator (CAISO) 2018 and 2022 Local Capacity Technical Study Draft Results presented at the March 9, 2017 stakeholder meeting. In summary, Energy Division staff raises the following issues:

- CAISO should make its “Final” power flow studies available to CPUC Energy Division staff;
- CAISO should consider revising its schedule consistent with the D.16-06-045 and the Scoping Ruling in the Commission’s Rulemaking (R.)14-10-010;
- CAISO should explain why it is using the peak shift adjustments in Southern California, but not in Northern California;
- CAISO should determine the lowest LCR need for the San Diego sub-area;
- CAISO should explain why the LCR results are increasing for the San Diego and Imperial Valley local capacity area;
- CAISO should explain why LCR needs are increasing in a number of sub-areas in PG&E’s service territory;
- CAISO should explain its assumptions regarding pumping load and how it is modeled;
- CAISO should explain where its assumptions exceed NERC and WECC reliability criteria; and

- CAISO should make its behind-the-meter distribution generation (PTM DG) and peak shift assumptions clear.

Each of these points is discussed in more detail below.

### **CAISO Should Make its “Final” Power Flow Studies Available to CPUC Energy Division Staff**

CPUC Energy Division staff has requested the “final” power flow studies from CAISO and will continue to work with CAISO to obtain access to this data before the RA decision is issued this year.

### **CAISO Should Consider Revising its Schedule**

In its presentation, CAISO indicates that the, “CPUC and the ISO have determined the overall timeline,” and indicate that the date for the “Final 2018 LCR report” would be May 1, 2017. As Energy Staff have indicated previously (see November 14, 2016 comments on the CAISO’s study assumptions),<sup>1</sup> in its Decision (D.) 16-06-045, the CPUC found that “[i]n order to promote due process to all parties,” that among other provisions, “[t]he final studies should be filed and served in the then-current RA proceeding by April 15 of each year, unless otherwise scheduled by the ALJ or scoping memo” (p. 60). The Scoping Ruling in the Commission proceeding, R.14-10-010, currently calls for the final studies to be submitted on April 15.

In response to Energy Division staff’s previous comments, CAISO responded that:

The ISO will seek to expedite its process as much as possible. Timing is bounded in part by availability of CEC load forecast, actual running the studies and allowing two rounds of stakeholder meetings/calls to present the results and comment periods. The ISO Reliability Requirements BPM (page 185) is very specific about the LCR study timeline. The publication of the Final Study Report is to be done targeting the first week in May and no later than end of June.

[https://bpmcm.caiso.com/BPM%20Document%20Library/Reliability%20Requirements/Reliability%20Requirements%20BPM%20Version%2030\\_clean.docx](https://bpmcm.caiso.com/BPM%20Document%20Library/Reliability%20Requirements/Reliability%20Requirements%20BPM%20Version%2030_clean.docx)

Energy Division staff encourages CAISO to reconsider its timeline in light of the Commission’s request. A May 1, 2017 date for releasing the final report will impact the CPUC’s ability to review the study in time for the 2018 Resource Adequacy requirements for the LSEs we regulate.

### **CAISO Should Explain why it is Using the Peak Shift Adjustments in Southern California, but not in Northern California**

In the Summary of Findings, CAISO staff indicated that, “Draft LCR results herein use CEC forecast with peak shift for all southern LCR areas and non-peak shift for all northern LCR areas” (p. 4). It would be helpful to understand CAISO’s reasoning for using different load

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<sup>1</sup> <http://www.caiso.com/Pages/documentsbygroup.aspx?GroupID=B2A706DA-4026-40B7-857B-2A356CAA77D0>

assumption in Southern California than what it uses in Northern California. In addition, it would be helpful if CAISO could explain whether it changes other assumptions when taking into consideration the peak shift adjustment (e.g., later hour, different import assumptions, etc.).

**CAISO Should, as a Sensitivity, Determine the Lowest LCR Need for the San Diego Sub-Area**

For LCR purposes, CAISO examines the LA Basin and the San Diego sub-area combined and chooses the most effective resources to meet the LCR requirements, by TAC area. It is Energy Division staff's understanding that resources are selected in the San Diego sub-area because these resources are considered more effective.

Nonetheless, Energy Division staff request that CAISO run a case minimizing the need in the San Diego sub-area. This serves two purposes: 1) it would provide parties with information on how much more or less effective resources are in the San Diego versus the LA Basin, and 2) it represents a different allocation of local resource responsibility and cost and could be more reflective of the reliability benefits received by the customers in the two areas, considering that San Diego's load is considerably less than the requirement in many months of the year and that many of SONGS-related expenses (e.g., RMR of Huntington Beach) are shared across the two TAC areas.

**CAISO Should Explain Why the Local Area Needs have Increased in the San Diego Area**

The local need in the San Diego/Imperial Valley (IV) area increases by a considerable amount in 2018 over previous years. The table below shows the historical local capacity need, as well as results from the draft 2018 and mid- and long-term studies. While this may be the result of moving the need from the LA Basin to San Diego, this should be thoroughly explained. The large increase in the San Diego local requirement is concerning given the trends in load forecasts and the significant transmission investments that have been made in the Southern California area generally and the San Diego area in particular. In addition, Energy Division staff look forward to working with the CAISO to consider combining these two areas and providing effectiveness factors, rather than drawing a bright line between the need in LA and San Diego.

	LCR Need			1-in-10 Load Forecast					
	San Diego or SD/IV	LA Basin	SD & LA Combined	San Diego	LA Basin	SD & LA Combined	Notes		
	Based on San Diego Local Area								
2006	2,620	8,127	10,747	4,578	18,839	23,417			
2007	2,781	8,843	11,624	4,742	18,809	23,551			
2008	2,919	10,130	13,049	4,873	19,648	24,521			
2009	3,113	9,728	12,841	5,052	19,836	24,888			
2010	3,200	9,735	12,935	5,127	20,058	25,185			
2011	3,146	10,589	13,735	5,036	20,223	25,259			
2012	2,849	10,865	13,714	4,844	19,931	24,775			
2013	2,938	10,295	13,233	5,114	19,460	24,574			
	Based on San Diego/ IV LCR Area								
2014	3,605	10,430	14,035	5,200	19,694	24,894	3,394	San Diego Sub-Area	
2015	3,910	9,097	13,007	5,407	19,970	25,377	3,103	San Diego Sub-Area	
2016	3,112	8,887	11,999	5,283	20,168	25,451	2,850	San Diego/IV Sub-Area	
2017	3,570	7,368	10,938	4,840	18,890	23,730	2,915	San Diego Sub-Area	
2018	4,192	7,252	11,444	4,759	19,221	23,980	2,664	San Diego Sub-Area	
2019	3,160	9,119	12,279	5,538	20,506	26,044	2,508	San Diego Sub-Area	
2020	2,868	9,229	12,097	5,412	20,764	26,176	2,868	San Diego Sub-Area	
2021	4,357	6,898	11,255	4,980	19,506	24,486	2,514	San Diego Sub-Area	
2022									
2023									
2024									
2025	4,868	7,346	12,214	5,394	22,376	27,770			
2026	4,649	7,234	11,883	5,307	19,243	24,550	2,807	San Diego Sub-Area	

**CAISO Should Explain why LCR Needs are Increasing in a Number of Sub-areas in PG&E’s Service Territory**

It would be helpful if CAISO could explain why the LCR needs are increasing in the following local areas and subareas:

- In Humboldt, load has decreased by 1 MW (188 MW to 187 MW), but the LCR need has increased by 12 MW (157 MW to 169 MW) due to a different limiting contingency. It would be helpful to explain why the contingency changed (from an overload on the Trinity – Maple Creek 60 kV line for 2017 to a thermal overload on the Humboldt-Trinity 115 kV for 2018).
- In Eagle Rock sub-area, the contingency remains the same (Cortina-Mendocina and Geysers #3 – Geysers #5 115 kV lines), but the LCR has increased by 18 MW (from 181 MW in 2017 to 209 MW in 2018). It would be helpful to understand why the need is increasing, when the contingency has remained the same.

- In the Fulton sub-area, the overall contingency remains the same, but the sub-area requirement increases from 304 MW in 2017 to 430 MW in 2018. The presentation explains that if the “Lakeville #2 60 kV line is open... there is no additional LCR need compared with the Eagle Rock sub-area.” It would be helpful to understand why this line is closed and whether it is expected to be open in 2018.
- The 1-in-10 peak load in the Sierra local area goes up by 61 MW (from 1,757 MW to 1,818 MW), but the overall LCR need goes up by 95 MW (from 1,731 MW to 1,826 MW, with deficiencies and 2,043 MW to 2,132 MW, without deficiencies). There are also a number of increases in sub-area requirements, even though the contingencies remain the same. It would be helpful to understand these changes.

### **CAISO Should Explain Where its Assumptions Exceed NERC and WECC Reliability Criteria**

Energy Division staff request that CAISO explain where its assumptions exceed NERC and WECC reliability criteria. For example, in the Santa Clara and Moorpark sub-areas, CAISO refers to the Category C contingency as “Pardee-S. Clara 230 kV line followed by DCTL and Moorpark-S. Clara #1 and #2 230 kV lines,” and it appears that this would be an N-1, N-2. It would be helpful to understand how these contingencies relate to the Category B and Category C contingencies considered and adopted by the Commission in early resource adequacy decisions (and shown by the CAISO LCR studies, see Table 4, Criteria Comparison).

In addition, it would be helpful if the CAISO could delineate which areas are considered dense urban areas for each of the local areas and sub-areas and how this affects the applicable NERC and WECC reliability standards.

### **CAISO Should Explain its Assumptions Regarding Pumping Load**

During the stakeholder discussion, it was Energy Division staff’s understanding that CAISO had revised upward the pumping loads used in its LCR analysis based on requests from LSEs. Energy Division staff requests that CAISO document 1) the pumping loads that it is using in each local area and/or sub-area, 2) whether the pumping loads have been adjusted upward compared to the CEC forecast and by how much, and, 3) the reasons for this upward adjustment. Energy Division staff is concerned that these adjustments are not transparent, are potentially inconsistent with the IEPR forecast and agreed upon assumptions, and could affect the overall LCR need and, thus, request further discussion and clarification.

### **CAISO Should Make its Behind-the-Meter Distribution Generation (PTM DG) and Peak-Shift Assumptions Clear**

In its presentation, CAISO provides the assumed behind-the-meter distributed generation for Northern California local areas. For example, for the Greater Bay Area, the 2018 load assumes a 328 MW reduction due to behind the meter DG. However, CAISO did not include this

information for the local areas in Southern California in its presentations, although it was provided verbally at the meeting and in subsequent communications. It would be helpful if the behind-the-meter DG assumptions were documented in presentations and reports for Southern California, as done for the Northern California region.