

**Subject: Draft 2018 and 2022 Local Capacity
Technical Reports and Presentations Entitled “Final
2018 and 2022 LCR”**

Submitted by	Company	Date Submitted
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The CPUC Energy Division staff appreciate the opportunity to comment on the California Independent System Operator (CAISO) Draft 2018 Local Capacity Technical Report issued on May 6, 2017 and on the “Final 2018 and 2022 LCR,” results presented on the April 13, 2017 stakeholder call. Energy Division staff raises the following issues

- CAISO has not explained why it introduced these sensitivities in the final draft and not earlier in the process; and
- CAISO’s two sensitivities for the San Diego region are problematic in that they rely on anecdotal information that needs further review, consideration, and analysis.

In addition, Energy Division staff appreciates CAISO responses to early comments, but include comments that were not addressed previously.

CAISO has not Explained Why it Introduced these Sensitivities in the Final Draft and not Earlier in the Process

CAISO has not explained why it introduced two new sensitivities in its results released on April 6, 2017 and presented on April 13, 2017. CAISO did not mention either of these sensitivities in its draft study plan released in October 2016 or in its final study plan released in December 2016, nor did it report or mention the development of sensitivities in its draft results presented at the March 9, 2017 stakeholder proceeding.

Energy Division staff is concerned about the introduction of sensitivities late in the study process (CAISO also introduced an Aliso Canyon sensitivity last year in its draft final results released on April 11, 2016), which does not allow sufficient stakeholder input, consideration, analysis or review.

CAISO’s Two Sensitivities for the San Diego Region are Problematic in that they Rely on Anecdotal Information that Needs Further Review, Consideration, and Analysis

In its presentation, CAISO explains its sensitivity as follows: “Sensitivity study with Imperial Valley connected solar generation unavailable at 6 p.m. (based on EMS data for September 26, 2016 *high load day in Southern California*)” (emphasis added). However, as demonstrated in the tables and figures below, while September 26, 2016 was a high load day for SDG&E, it was not a high load day for SCE, nor was it SDG&E’s highest load day or the highest load day for SDG&E and SCE combined.

On September 26, 2016, SDG&E’s peak occurred in the hour ending at 6 pm, but SCE’s peak of 20,324 MW occurred in the hour ending at 4 pm and at a level considerably lower than its 2016 peak (i.e., 20,324 MW on 9/26/16 v. 23,597 MW on 6/20/2016). Moreover, on the combined peak day for SCE and SDG&E, June 20, 2016, while SDG&E peaked in the hour ending at 6 PM, SCE again peaked in the hour ending at 4 pm, driving the overall Southern California peak to the hour ending at 4 pm (i.e., between 3 pm and 4 pm). It should also be noted that these are fairly typical load levels (e.g., SDG&E at 4,200 MW) compared to the 1-in-10 SDG&E level of 4,924 MW that is used in CAISO’s 2018 SDG&E LCR studies.

Hour Ending	26-Sep-16			20-Jun-16			22-Jul-16		
	SCE	SDG&E	Combined	SCE	SDG&E	Combined	SCE	SDG&E	Combined
1	11,230	2,155	13,385	13,275	2,400	15,675	13,602	2,548	16,150
2	10,610	2,030	12,640	12,276	2,224	14,500	12,653	2,384	15,037
3	10,243	1,962	12,205	11,622	2,155	13,777	11,934	2,258	14,192
4	10,101	1,975	12,076	11,258	2,097	13,355	11,487	2,180	13,667
5	10,301	2,019	12,320	11,302	2,122	13,424	11,416	2,185	13,601
6	10,951	2,132	13,083	11,640	2,189	13,829	11,718	2,295	14,013
7	11,972	2,373	14,345	12,342	2,355	14,697	12,159	2,382	14,541
8	12,512	2,509	15,021	13,714	2,623	16,337	13,184	2,574	15,758
9	13,466	2,666	16,132	15,249	2,899	18,148	14,325	2,807	17,132
10	14,542	2,891	17,433	16,938	3,180	20,118	15,584	3,046	18,630
11	15,759	3,113	18,872	18,677	3,467	22,144	16,907	3,299	20,206
12	16,961	3,345	20,306	20,093	3,675	23,768	18,322	3,520	21,842
13	18,126	3,548	21,674	21,093	3,740	24,833	19,443	3,703	23,146
14	19,195	3,636	22,831	22,099	3,785	25,884	20,521	3,875	24,396
15	19,975	3,849	23,824	22,956	3,883	26,839	21,440	4,024	25,464
16	20,324	4,010	24,334	23,597	3,960	27,557	22,202	4,154	26,356
17	20,292	4,124	24,416	23,360	4,018	27,378	22,002	4,226	26,228
18	19,840	4,207	24,047	23,152	4,028	27,180	21,995	4,264	26,259
19	19,187	4,199	23,386	22,697	3,899	26,596	21,388	4,184	25,572
20	18,937	4,169	23,106	21,658	3,720	25,378	20,403	4,047	24,450
21	17,981	3,924	21,905	21,365	3,629	24,994	20,158	3,969	24,127
22	16,448	3,581	20,029	20,129	3,401	23,530	19,022	3,737	22,759
23	14,713	3,181	17,894	18,045	3,022	21,067	17,400	3,416	20,816
24	13,229	2,829	16,058	15,966	2,687	18,653	15,716	3,043	18,759

Energy Division staff is concerned that CAISO has selectively chosen a day *late* in the summer, when solar production begins to wane, to demonstrate its point, without regard to the overall Southern California peak in 2016, which occurred in June nor taking into consideration that the overall peak in Southern California is driven by SCE and that the SCE system peaks earlier in

the day. This is especially important given that the CAISO considers these areas in combination and Energy Division staff raised the issue of coincident peaks in its comments on the draft study manual. Moreover, should CASIO continue to introduce sensitivities, it should do so earlier in the process and, if it is considering this particular peak shift issue, it should also look at solar production during typical peak periods for the combined Southern California region.

CAISO introduced another sensitivity regarding the potential delay in the Sycamore-Penasquitos 230 kV line from June 1, 2018 to June 30, 2018. CAISO indicates that, “Currently this project is expected to miss the June 1, 2018 required in-service date” (p. 85). While the CPUC is permitting agency, Energy Division staff were not aware of the change in schedule and will work with SDG&E to understand the potential delay in the in-service date. Nonetheless, it is our understanding that CAISO has a new stakeholder process for new transmission to address this potential one-month delay and, thus, the concerns with this sensitivity could be obviated. In addition, Energy Division staff notes that, as a practical matter, it seems unlikely that San Diego will experience a 1-in-10 peak of 4,924 MW in June and especially given increased penetration of behind-the-meter solar.

Finally, Energy Division staff appreciates CAISO responses to comments, but include the following two comments, which were not addressed in the comment matrix:

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.