

CA Public Utilities Commission (CPUC) Staff Comments on the Draft Flexible Capacity Needs Assessment for 2017

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CPUC Staff appreciates the opportunity to offer these comments on the Draft Flexible Capacity Needs Assessment for 2017. We have identified one correction, described below, which should be made to the study. Unfortunately, as we have not yet received the CAISO workpapers, we are unable to provide additional comment at this time. If needed, we will provide comments on the workpapers separately.

The Calculation of the Maximum Secondary Three-Hour Net-Load Ramp Should be Corrected

The CAISO Tariff defines Maximum Secondary Net-Load Ramp as “The second highest daily increase in CAISO system load, net of wind and solar output, measured over a consecutive three-hour time period that does not correspond with the time period for the Maximum Three-Hour Net-Load Ramp¹.” We interpret this to mean that the Secondary Net-Load Ramp is the largest three-hour ramp that does not overlap with the hours of the greatest three-hour ramp of the day. For example, if the Maximum Three-Hour Net Load Ramp for a day occurs from 2:00-5:00 pm, the secondary ramp for that day must end before 2:00 or begin after 5:00.

The Draft Flexible Capacity Needs Assessment for 2017 appears to be out of compliance with this Tariff requirement for the summer months June through September as the secondary ramps used to calculate the need for Base Capacity all overlap with the time period for the primary ramp on those days (Figure 1).

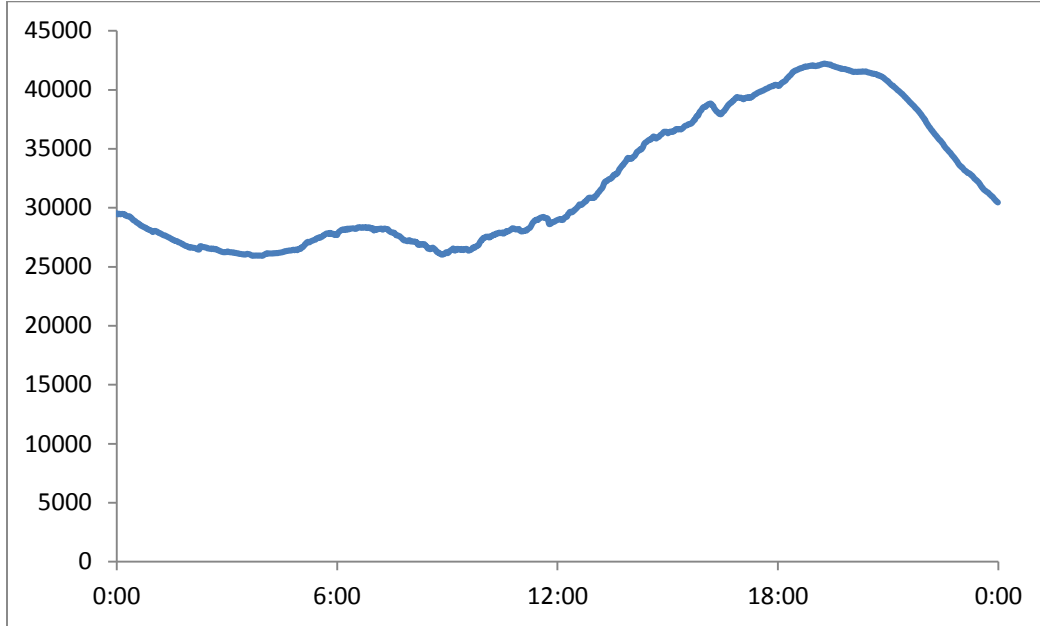
Figure 1: June-September Maximum Secondary Net-Load Ramps and Corresponding Primary Ramps for Those Days from the Draft Flexible Capacity Needs Assessment for 2017

Day of Maximum Secondary Net-Load Ramp	Calculated Maximum Secondary Net-Load Ramp (MW)	Time Period for Ramp	Corresponding Primary Three-Hour Ramp (MW)	Time Period for Ramp
June 8	6039	11:48-14:48	6275	13:49-16:49
July 29	7638	11:54-14:54	7704	13:00-16:00
August 28	6234	10:24-13:24	6402	12:49-15:49
September 8	8079	11:57-14:57	8863	12:39-15:39

¹ California Independent System Operator Corporation Fifth Replacement Electronic Tariff. Appendix A: Master Definition Supplement

By defining the secondary ramp as a ramp that begins during the AM hours, rather than one that does not overlap with the primary ramp of the day, as required by the CAISO Tariff, the study methodology is artificially inflating the need for Base Capacity. Days such as those depicted in Figure 1 with a very long ramp beginning before noon, rather than two distinct ramps, end up being selected as those with the greatest secondary ramp.

Figure 1: Net Load Curve for July 29



We have recalculated the Maximum Secondary Three-Hour Net Load Ramp for June-September using a secondary ramp that does not overlap with the day’s primary three-hour ramp (Table 2).

Table 2: Corrected Maximum Secondary Net-Load Ramp

Day of Maximum Secondary Net-Load Ramp	Calculated Maximum Secondary Net-Load Ramp (MW)	Time Period for Ramp	Corresponding Primary Three-Hour Ramp (MW)	Time Period for Ramp
June 25	5265	15:49-18:49	5525	12:27-15:27
July 28	6347	12:34-15:34	6963	15:55-18:55
August 15	6166	10:57-13:57	6640	15:43-18:43
September 20	7043	12:12-15:12	9918	15:13-18:13

While this outcome still selects days with one long ramp, rather than multiple ramps, it does result in reductions in the calculated Base Flexibility (Category 1) need for all months and selects ramps that do

not overlap with the primary ramp of the day. The revised figures result in a Category 1 need of 64% for the summer months, as opposed to the 71% presented in the draft results (Table 3).

Table 3: Corrected Base Flexibility Percentage for Summer Months

Month	Monthly Need	Base Flexibility Need	Percentage
May	10737	4825	45%
June	9464	5265	56%
July	8397	6347	76%
August	8295	6166	74%
September	9918	7043	71%
Summer Average			64%

We encourage CAISO to adopt these revised figures as they better align with the procedure outlined in the CAISO tariff as well as the summer need for two-start resources.