



March 3, 2017

Via Electronic Mail
regionaltransmission@caiso.com

RE: Sierra Club Comments on the 2016-2017 ISO Transmission Plan

Sierra Club submits the following comments and questions on the Draft 2016-2017 Transmission Plan (“Draft TPP”). Specific requests for additional explanation and analysis are stated in *italics*.

- 1) Use of a low-mid Additional Achievable Energy Efficiency (“AAEE”) forecast for the San Diego area appears to be inconsistent with CPUC precedent and inappropriate where a utility service territory is entirely within its local capacity area.**

In determining local area need for the SDG&E area, the Draft TPP uses the 1-in-10 year forecast with low-mid additional achievable energy efficiency (“AAEE”) assumptions. The rationale that has historically been given for use of a low-mid AAEE forecast to determine local capacity need is uncertainty on where EE will show up in a utility service territory. Because the service territory of SDG&E is entirely within its local capacity area, this concern does not apply for the purposes of assessing San Diego local area need. Accordingly, *please explain what justifies the use of a low-mid AAEE scenario when considering reliability needs for San Diego.*

The CPUC addressed this exact issue in Track 4 of the 2012 LTPP (D.14-03-004). In the Track 4 Decision, the Commission concluded:

Normally, the low estimate would be used to account for the uncertainty of locational impacts of energy efficiency within a utility’s service area. As NRDC’s witness Martinez testified, “The amount included in the local area should simply be the amount reasonably expected to occur in SDG&E’s service territory, since they are the same geographical area.” We agree with SDG&E and NRDC that the revised Scoping Memo should have used a different methodology with the mid-level energy efficiency estimate.¹

¹ D.14-03-004 pp. 62-63.

Therefore, use of the low-mid AAEE scenario appears to create conflict with CPUC decisionmaking. Because it is Sierra Club’s understanding that EE reductions may not necessarily correspond to a 1:1 reduction in local area need, applying the mid-case scenario now will avoid additional needed analysis and delay when the time comes for the CPUC to make procurement decisions for San Diego, both with regard to resource adequacy and any procurement that may occur under the Integrated Resource Plan (“IRP”). *Please include an assessment of local area need for San Diego that assumes a mid-level of AAEE savings.*

2) The benefits resulting from recently implemented transmission improvements in the San Diego area are not adequately explained.

It is Sierra Club’s understanding that the main purpose of investment in the transmission system to address local area need is to avoid investments in generation that would otherwise be needed to meet local reliability concerns. Done properly, transmission investments would provide superior value and result in reduced reliance on local area resources. Yet, it is unclear how local area need in San Diego has benefited from recent investments in the transmission system. Page 139 of the Draft TPP identifies three “significant” changes to the SDG&E transmission system: the Imperial Valley phase shifting transformers, the Suncrest SVC (static VAR compensator) project, and implementation of an operational mitigation of bypassing the series capacitor banks on SWPL and Sunrise Powerlink 500 kV lines under normal system conditions. The Draft TPP then states, without any further analysis that “[t]hese three projects substantially improve the reliability to southern California load and the deliverability of Imperial area generation.”²

Please clearly identify how these transmission investments function to “substantially improve” local reliability and deliverability. For example, to what extent have they resulted in reductions in local capacity need or increased import capability into the San Diego area? Sierra Club raises this concern because it does not appear that the significant ratepayer investments in transmission improvements, such as Sunrise Powerlink, have resulted in improvement to local area need. The graph below identifies 1-in-10 peak demand in the San Diego area in 2024 under a mid-case mid-level AAEE scenario under the past several CEC forecasts and CAISO’s corresponding identification of LCR need for the San Diego area in Appendix D of the Draft TPP. Despite declines in demand and additional transmission investment, LCR need is higher than need identified several years ago. Moreover, the differential between demand and LCR need is decreasing with LCR need identified in the Draft TPP now appearing to be *higher* than demand.

² Draft TPP p. 139 (emphasis added).

	Demand in 2024 for SDG&E Service Territory Under Mid-Case Mid-AAEE Scenario	San Diego/Imperial Valley LCR Need Category C Identified in TPP Appendix
2017-2027 Forecast	4,397 MW	LCR need identified in 2017-2018 TPP
2016-2026 Forecast/2016-2017 TPP	4,553 MW	4,649 MW
2015-2025 Forecast/2015-2016 TPP	5,190 MW	4,868 MW
2014-2024 Forecast/2014-2015 TPP	5,348 MW	4,174 MW

Please answer the following:

- Please specify the reliability benefits the San Diego area has received from the transmission upgrades identified in the Draft TPP.
- To the extent Aliso Canyon has resulted in shifting local capacity obligations between the LA Basin and San Diego and is all or part of the reason for increased LCR need in San Diego, please explain how this shift functions to mitigate reliability issues related to Aliso Canyon.
- To the extent CAISO is shifting local area need from the LA Basin to the San Diego area, please explain how this shift functions to decrease local reliability need in the LA Basin.
- To the extent CAISO is shifting local area need from the LA Basin to the San Diego area, please explain why the LA Basin and the San Diego areas should not now be considered a single local capacity area and what justifies continuing to consider these areas as separate.
- It is Sierra Club’s understanding that the customers of a given utility assume the costs of meeting local reliability need. To the extent this is the case and CAISO is shifting local area need from the LA Basin to the San Diego area, please explain why SDG&E should assume reliability costs formerly incurred by SCE customers.

3) The TPP should not assume generation is operational that is not yet both contracted and permitted.

The Draft TPP should not assume proposed generation that has not yet received permitting approval is operational. In its need assessment of the Big Creek/Ventura area, Appendix D now assumes Puente (identified as new units, MNDALY_7_UNIT 1 and 2) is operational.³ Puente has not yet been approved by the California Energy Commission and faces significant opposition in that forum by the City of Oxnard, environmental justice and environmental groups. The Coastal Conservancy and Coastal Commission have expressed serious concerns with the project due to the vulnerability of the project location to sea level rise and flood risk, which, after thorough analysis, led the Coastal Commission to conclude that

³ Appendix D page 90.

“there is substantial evidence that the project site could be exposed to flooding during its proposed 30-year operating life, and that over the long-term, this possibility would become a certainty.”⁴ State legislators, including Senate Pro Tem Kevin DeLeon, have also expressed their deep concern with this project.⁵ It is not appropriate for CAISO to get ahead of agency decisionmaking and presume resources that have not received required approvals will be operational. *The Draft TPP should continue the practice of the 2015-2016 TPP, which did not include Puente in the assumed list of resources and simply acknowledged as part of the Moorpark area need finding that this resource was contracted with following the LTPP Track 1 decision.*

4) Please provide further explanation of the need finding with and without Ellwood and provide additional specificity on the nature of the need in identified need findings.

Slide 26 of the February 17th presentation states that Santa Clara sub-area need in the Big Creek/Ventura area is 253 MW with Ellwood and 326 MW without Ellwood. Ellwood is a 54 MW facility. *Please explain why removing a 54 MW facility would increase need by an additional 73 MW (for a total of 127 MW).* To the extent this is because the Draft TPP assumes the next available resource to meet a deficiency is the 130 MW Mandalay 3 unit, this is not clearly articulated, nor an expression of need.

As a more general matter, the need findings in the Draft TPP lack needed granularity and explanation. For example, Appendix D of page 93 states that the limiting contingency for the Moorpark sub-area is voltage collapse. Voltage support could potentially be addressed by energy storage and non-fossil resources such as renewables with advanced inverters. For example, CAISO’s recent test with NREL and First Solar demonstrated that advances in inverter technology enable solar systems to provide reactive power even where output is near zero. Yet although the identified contingency is voltage collapse, there may be a need for generating resources at a MW level below that identified to address the voltage collapse issue. As currently presented in a single MW need number, it is impossible to divine how to parse out the extent to which need is based on voltage and if voltage is provided, at what point other reliability needs emerge. This lack of granularity frustrates the ability to identify alternative solutions to meet reliability requirements and the extent to which resources that provide voltage support without necessarily providing energy, or simply reduce load, can function to minimize the need for generating resources. *In the case of the Moorpark need finding, please identify the extent to*

⁴ http://docketpublic.energy.ca.gov/PublicDocuments/15-AFC-01/TN213667_20160915T134501_Joseph_Street_Comments_California_Coastal_Commission_30413d_Rep.pdf p.37.

⁵ http://docketpublic.energy.ca.gov/PublicDocuments/15-AFC-01/TN216181_20170222T151512_Senator_HannahBeth_Jackson_Comments_Members_of_the_California_L.pdf

which resources that provides voltage support, but may not necessarily provide energy, would lower the identified local area need.

5) Please explain how available qualifying capacity in Appendix D is used to determine any residual sub-area reliability need.

As one of many examples, page 91 of Appendix D states that for the Vestal Sub-area, “[t]he limiting contingency establishes a local capacity need of 693 MW (includes 46 MW of QF generation) as the minimum capacity necessary for reliable load serving capability within the sub-area.” *Please answer the following:*

- *To determine the total amount of MW of resources available to meet local need in the Vestal sub-area, would one simply add up the NQC of every resource in the total unit list (here pages 86-90) that lists Vestal in the LCR sub-area name column. If not, please explain.*
- *Is the referenced QF generation in the statement (“includes 46 MW of QF generation”) included in the qualifying capacity list set forth for this local area (here pages 86-90)? If so, what is the purpose of specifically noting QF generation in identifying local need and not identifying other types of resources?*

6) Please explain why local capacity need is identical under a Category B and Category C Contingency for some of the Draft TPP’s need findings.

In several areas of Appendix D, such as the need determinations for the San Diego area, the Draft TPP identifies identical LCR need for a Category B and Category C contingency. Previous TPP iterations for these same local capacity areas identify a higher local capacity need for a Category C contingency. A higher need for a Category C contingency would seem logical given this contingency assumes loss of multiple system elements. *If this is not an error, please explain why these numbers are identical.*

Sierra Club appreciates CAISO’s response to these comments and questions. If you have any questions, please contact Matt Vespa at matt.vespa@sierraclub.org or 415-977-5753.

Matthew Vespa
Senior Attorney
Sierra Club