BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking To Integrate and Refine Procurement Policies and Consider Long-Term Procurement Plans.	R. 12-03-014 (Filed March 22, 2012)

OPENING BRIEF OF SIERRA CLUB CALIFORNIA ON TRACK 1 ISSUES

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September 24, 2012

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1. The Commission should not rely on CAISO"s Local Capacity Requirements ("LCR") and Once-Through Cooling Generation Studies.

2. The Commission should not adopt CAISO"s policy recommendation regarding LCR need.

3. The Commission should reject CAISO"s input assumptions of zero for incremental demand response, uncommitted energy efficiency and uncommitted combined heat and power.

4. To determine LCR need, the Commission should make modifications to the results of CAISO"s sensitivity study including more realistic projections of the contribution of preferred resources to reducing LCR need.

5. The Commission should find an LCR need of zero for the Los Angeles Basin.

6. The Commission should find an LCR need of zero for the Big Creek/Ventura Area.

7. If any LCR need is found, the Commission should reject SCE"s request for unlimited flexibility in determining and filling its LCR obligations.

8. If any LCR need is found, the Commission should require that it be filled with a process that ensures strict compliance with the loading order.

9. If any LCR need is found, the Commission should further explore in the LTPP how SCE can best comply with the loading order.

10. The Commission should not make operational flexibility decisions as part of its LCR need determination.

11. The Commission should defer determining LCR need to the next iteration of the Long-Term Procurement Proceeding. This analysis should assess new transmission mitigations. It should also use the most recent Energy Commission load forecast as well as updated information on the use and projection of preferred resources.

Pursuant to Rule 13.11 of the Commission"s Rules of Practice and Procedure, Sierra Club California ("Sierra Club") hereby submits this Opening Brief in response to the Track 1 testimony submitted by parties in this proceeding, as well as the evidentiary hearings held in August 2012. While not addressing all the issues in the common briefing outline,[1] Sierra Club reserves the right to respond in its reply brief to all issues in the opening briefs. This brief is timely submitted in accordance with the schedule set by Administrative Law Judge ("ALJ") Gamson during the evidentiary hearings.

INTRODUCTION

CAISO presents the Commission with a stark choice. CAISO requests that the Commission approve Local Capacity Requirements ("LCR") need for Southern California Edison ("SCE") that severely discounts state policies related to energy efficiency, demand response, distributed generation, and combined heat and power ("CHP"). CAISO"s approach puts the thumb on the scale that favors the construction of new natural gas plants and disregards the state"s loading order. Rather than promoting strict adherence to the loading order, CAISO assumes that the state"s policies for preferred resources, including energy efficiency, demand response programs, distributed generation and CHP, will not pay sufficient dividends in the Western Los Angeles Basin. Despite CAISO"s claim that its need recommendations are technology neutral, its recommendations regarding the inclusion of preferred resources when estimating LCR need indicate that it supports considering natural gas plants first and foremost. Although preferred resources can still be purchased, CAISO argues that these resources should

[1] Sierra Club uses section numbering from the common briefing outline in order to facilitate ease of use including Roman numeral No. I with the "Summary of Recommendations." Where Sierra Club does not address an issue, the relevant section is marked "Not Applicable." Note, Sierra Club also uses subheadings in certain sections that are not included in the common briefing outline.

not be considered when analyzing and planning for SCE"s LCR need. This skews energy planning. If CAISO"s proposal is accepted, it will greatly lessen the impact of the loading order and the state policies and goals designed to promote and utilize preferred resources.

The evidence in the proceeding demonstrates that CAISO"s modeling results should not be accepted as the basis for the LCR decision in Track I. CAISO has produced overly conservative estimates of local system need using unrealistic input assumptions. By giving lip service to the loading order and other clean energy policies, CAISO promotes over-procurement. Though CAISO's studies suggest that uncommitted energy efficiency and other preferred resources represent a risk to the reliability to LA Basin, testimony from the parties demonstrates that preferred resources should be considered in quantities that realistically project the future trajectory of the California energy system when determining LCR need. The evidence shows that making these adjustments results in zero LCR need.

Even if the Commission were inclined to authorize procurement in this Track, it should be a very small amount because there is time to reassess the LCR need based on improved future information. SCE proposes to take at least two years to better assess LCR need determined by CAISO. This reassessment will include analysis of the further penetration of distributed generation, the contribution of other preferred resources, and a lower load forecast, all of which will likely demonstrate that CAISO"s current LCR need assessment is flawed. By arguing for a reassessment of CAISO"s need number in the future, SCE"s testimony reveals that SCE knows that CAISO"s analysis of LCR need is overinflated.

SCE"s acceptance of CAISO"s number without making any independent showing is misplaced because CAISO"s analysis is flawed and SCE fails to meet its burden under AB 57 to justify preauthorized rate recovery for LCR need procurement. Thus, SCE"s request for the

authorization to procure up to the amount proposed by CAISO should be rejected. Additionally, the Commission should reject SCE"s request for carte blanche decision making authority to determine its own "better" number for LCR procurement need. SCE"s approach improperly removes the decision from the public realm of the Long-Term Procurement Plan proceeding ("LTPP") and places it in the private hands of SCE. SCE"s analysis of the procurement need will take at least two years; this analysis can be presented in the next iteration of the LTPP.

ARGUMENT

II. CAISO'S DETERMINATION OF LCR NEED IN ITS STUDIES SHOULD BE MODIFIED TO CONFORM WITH A REALISTIC VIEW OF CALIFORNIA'S CLEAN ENERGY FUTURE

A. CAISO's LCR and Once-Through Cooling Generation Studies Should Not Be Approved by the Commission.

The Commission should not endorse CAISO"s analysis, because it would set a precedent in long-term planning for assuming that California"s clean energy policies are destined to fail. The scoping order specifically addresses the issue of whether CAISO"s LCR and Once-Through Cooling ("OTC") Generation Studies ("LCR Study") are the proper predicate upon which to base the whole LCR need decision. The Scoping Order explains that

> Track 1 of this proceeding will focus on the studies to be served in testimony by the ISO. However, parties will have the opportunity to present evidence that the ISO"s studies should be modified, or that the Commission should consider additional factors beyond the ISO"s studies, for the purposes of determining local reliability needs.[2]

The evidence presented by the parties and CAISO"s own testimony demonstrates that the input assumptions, and thus, the findings of the LCR Study are not reflective of California"s clean energy goals and policies. CAISO recommends that 2370 MW of LCR be placed in the Western L.A. Basin at the most effective sites as well an additional 430 MW of generation in the

[2] Scoping Memo and Ruling of Assigned Commissioner and Administrative Law Judge (March 2012) ("Scoping Memo") p. 5.

Moorpark Sub-Area by 2022.[3] The authorization for the L.A. Basin could increase to 3,741 MW if less effective sites are chosen.[4] CAISO"s recommendations endorse the procurement of natural gas plants to meet this need, because CAISO sees this as the best fit to meet the energy system"s needs as defined by CAISO.[5] Mr. Millar states that "at present the most viable option to meeting those needs [is] gas-fired generation."[6] If these plants are authorized and built, they will add new fossil fuel plants to the energy system at the very time when California should be well on the path toward decarbonizing its electric system and economy.[7]

CAISO"s ten-year local capacity modeling is a first-time endeavor that needs major refinement, because it paints an unrealistic picture of California"s supply and demand for local capacity requirements. CAISO uses worst case, unrealistic assumptions. Mr. Fagan on behalf of the Division of Ratepayer Advocates ("DRA") succinctly explains that "CAISO"s estimated minimum 2021 LCR need for the LA Basin and Big Creek/Ventura depends on a number of „worst case" assumptions concerning transmission system events, weather and load, and the set of supply and demand resources that will be in place in 2021."[8] For example, CAISO uses zero uncommitted energy efficiency, zero uncommitted combined heat and power ("CHP") and zero incremental demand response as input assumptions in its models.[9] This is also illustrated by the double contingency that CAISO identifies for the Western L.A. Basin. Neither line has had a

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[3] ISO-01, p. 17, lines 6-16; Reporter"s Transcript R. 12-03-014, Evidentiary Hearings, August 7 – 17, 2012, Vols. 1 -9 ("Tr.") Vol. 2, p. 197 lines 5-24 *see also* Tr., Vol. 3, p. 429 lines 19-28.
[4] Tr., Vol. 2, p. 197, lines 23-24. SCE also urges adoption of the same range. *See* SCE-01, p. 1, lines 7-11.
[5] *See, e.g,* Tr., Vol. 3, p. 457, lines 19-23 (Millar); ISO-01, p. 15, lines 20-27; ISO-06, p. 14, line 17 – p. 15, line 3.
[6] Tr., Vol. 3, p. 457, lines 21-23.
[7] *See* Health & Safety Code §§ 38500 *et seq*., The Global Warming Solutions Act of 2006 ("AB 32"); S-3-05, Governor"s Executive Order (calls for 80 percent reduction of state's greenhouse gas emissions from the 1990 level by 2050).
[8] DRA-01, p. 23, lines 3-6.
[9] ISO-01, p. 15, lines 24-30; ISO-06, p. 14, line 17 – p. 15, line 3.

forced outage in the last ten years. The 1-in-10 year occurrence for which CAISO is determining LCR need has not even occurred.[10]

CAISO readily admits that this is the first time that it has engaged in this type of ten-year modeling exercise and that LCR need has never been determined in this way.[11] Yet, CAISO has now presents its modeling as the only answer to determining local capacity need.[12] CAISO rejects doing more studies to determine if different transmission options and changes to energy efficiency ("EE"), demand response ("DR") and distributed generation ("DG") could reduce the need for local capacity.[13] CAISO takes the position that additional studies will not change the results for need in local capacity generation.[14] CAISO witness Mr. Millar explains that if CAISO did not use deterministic assumptions, its analysis would not be proper.[15] However, as set forth below, this approach makes CAISO"s findings unsupportable, because they are premised on unjustifiable input assumptions that skew the final need number. If approved, CAISO"s proposal will be the main driver of California"s energy future. Yet, Mr. Millar readily admits the CAISO"s proposal is a policy recommendation.[16] As such, it should not be taken as the final word on LCR procurement in this track.

1. CAISO Studies Inflate the LCR Need.

CAISO"s high LCR need proposal suffers from multiple flaws. First, CAISO uses unrealistic input assumptions to justify a higher than necessary LCR need. CAISO then asserts

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[10] Tr., Vol. 1, p. 119, line 3 – p. 120 line 28. (Sparks)
[11] Tr., Vol. 1, p. 117, lines 21-24. (Sparks)
[12] See, e.g. ISO-01, p. 2, lines 6-9. ("This assessment identifies the minimum amount of resources within transmission constrained areas that must be available to support the reliable operation of the transmission system assuming that the generating resources subject to California"s OTC policies retire or otherwise become unavailable.")
[13] ISO-03, p. 4, lines 21-28.
[14] *Id.*, p. 5, lines 12-13.
[15] ISO-06, p. 9, lines 16-20.
[16] Tr., Vol. 3, p. 429, line 19 - p. 430, line 3.

that uncommitted energy efficiency and CHP as well as incremental demand response should not be considered for local reliability purposes. CAISO zeros out all three of these categories.[17]

CAISO"s policy decision to count these resources as zero for LCR need, but then still argue that these resources are important for the system undermines CAISO"s credibility. In a half-hearted attempt to lessen the import of its approach to resource planning, CAISO argues that these resources can be counted towards system resources: "To the extent such uncommitted resources ultimately develop, they can be helpful in reducing overall net-demand, but the ISO does not believe it is prudent to rely on uncommitted resources for assessing future local system needs and ensuring the reliability of the bulk power system."[18] This approach leads to a "more is always better approach" regardless of system need, which in turn could result in wasting ratepayer money for new generation being piled on top of preferred resources that are being added to the system pursuant to California policies.[19] Alternatively, the added local capacity resources could displace preferred resources.[20] In fact, the last iteration of this proceeding stated "that there is no need for additional generation by 2020 at this time, and accordingly it is reasonable to defer authorization to procure additional generation based on system and renewable integration need."[21] The decision went even further in the footnote to this statement and stated that "[w]hile the focus of this proceeding extends out to 2020, it is important to note that the record similarly does not support a finding of need for additional generation beyond

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[17] ISO-01, p. 15, lines 24-30; ISO-06, p. 14, line 17 – p. 15, line 3.
[18] ISO-02, p. 4 lines 16-20.
[19] Tr., Vol. 3, p. 474 lines 4-10. (Millar, CAISO)
[20] DRA-03, p. 3, lines 9-19. ("[Over-procurement] also causes a „boxing out" or „crowding out" of preferred resources. This places additional expenses on the ratepayer, because ratepayers already pay for Commission-approved policies and mandates that establish energy efficiency and demand response targets, and promote distributed generation, and transmission system improvements" (quoting lines 12-15).)
[21] D.12-04-046 , p. 10.

2020. Accordingly, it is also reasonable to defer procurement of generation for any estimated need after 2020."[22]

Now, CAISO recommends adding thousands of megawatts of new generation to the system, raising the specter of not procuring enough generation to meet the LCR need if their recommendation is not adopted.[23] CAISO, however, makes no assessment of the relative risks of oversupply versus undersupply.[24] CAISO witness Mr. Sparks, nonetheless, asserts without any basis that California faces a greater threat from a shortage than it would if there were a surplus.[25] The only detrimental effect of a marginal surplus, according to Mr. Sparks, would be a "marginal cost implication."[26] This statement trivializes not only the potential waste of ratepayers" money[27] but also the environmental impacts of continued reliance on conventional generation. For example, it does not consider the effect of building new fossil fuel plants in the 2020 – 2022 timeframe when the state needs to be fully set on a path to decarbonize its electric system.[28] Preferred resources, not new natural gas plants, should be the building blocks of California"s energy future. Additionally, CAISO fails to consider the costs to SCE, which detailed its concerns about the costs of procurement and the risks to its creditworthiness in its opening testimony.[29]

CAISO argues that adherence to the reliability requirements do not preclude advancement of the state"s energy policy goals,[30] but adoption of the conclusions of the

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[22] *Id*. at n. 9
[23] ISO-08, p. 4, lines 26-29.
[24] Tr., Vol. 3, p. 501 line 3- p. 502 line 5. (Millar)
[25] ISO-02, p. 4, line 26 – p. 5, line 2.
[26] ISO-02, p.5, lines 1-2.
[27] Tr., Vol. 3, p. 467, lines 12-19. (Millar)
[28] *See* AB 32; S-3-05.
[29] SCE-01, p. 27, lines 10-14.
[30] ISO–06, p. 11, lines 7-22.

modeling based on assumptions that the area will achieve no uncommitted energy efficiency and CHP nor incremental demand response by 2020 would reverse the course of California's clean energy policies and run counter to the express policies in this proceeding. The decision in the 2006 LTPP set the bar: "In subsequent iterations of the long-term procurement process, the IOUs will be expected in their resource planning to meet and exceed the high standards Californians expect as pacesetters on energy and environmental issues."[31] This same standard should apply to CAISO's analysis of LCR need.

CAISO attempts to justify the conservative nature of its inputs by arguing that its "study methodology is consistent with NERC planning standards requiring the use of contingency analysis."[32] Mr. Millar says that the NERC, WECC and California-specific standards are "mandatory" and "deterministic."[33] Yet, testimony from SCE witness Ms. Cabbell indicates that the California-specific standards, *i.e.* standards that CAISO put in place are policy choices and are not required by NERC.[34] In fact, NERC does not require a ten-year outlook. CAISO chose to do the ten-year study for planning purposes. [35] The Commission has never approved an LCR methodology to authorize procurement ten years ahead of need,[36] and the Commission should not give this first-time trial-run study formal validation by using it to approve procurement.

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[31] D.07-12-052, p. 6; *see also* CEJA-07, pp. 106-121 (AB 32 Scoping Plan relies on significant reductions from the electric sector); Decision 08-07-047, p. 7 ("the Commission reaffirms its commitment to working with CARB on maximizing energy efficiency savings in order to achieve AB 32's targeted reductions in a cost-effective manner. The Commission expects to assist in achieving these goals . . . through the statewide strategic planning process, which will help to identify new and innovative approaches to the delivery of energy efficiency in California.")
[32] ISO-03, p. 3, lines. 2-3.
[33] ISO-06, p. 3, lines 24-25.
[34] *See* Tr., Vol. 5, p. 813, line 10 – p. 814, line 4. (Cabbell, SCE)
[35] Tr., Vol. 3, p. 376, lines 15-22. (Millar)
[36] Tr., Vol. 3, p. 420, line 28 – p. 421, line 5. (Millar)

The study design ensures that it will result in a need for new replacement LCR generation. CAISO uses the uncertainty created by the ten-year study period to dismiss any calls to analyze the possibility of addressing LCR need with preferred resources in locally constrained areas. For example, Mr. Millar argues energy efficiency, DR, and CHP cannot be reliably forecast,[37] but CAISO refuses to do the necessary forward thinking, analysis and modeling. In addition, CAISO did not even consider if new energy storage could play a role in reducing LCR need in the next ten years.[38] CAISO sticks to its mantra: the natural gas plants provide the necessary characteristics and that CAISO has not been able to identify other ways to meet this need.[39] Yet, it is apparent from the testimony of CAISO"s witnesses that CAISO did not meaningfully seek solutions because CAISO had already prejudged the answer.[40] In contrast, SCE proposes a whole process to sort out the role and capacity preferred resources can contribute to reducing the LCR need.[41]

Methods for determining the effect of preferred resources on LCR need can be created. For example, the California Energy Commission created a method assessing the amount of energy efficiency that could be attributed to local reliability in Los Angeles area by identifying the impact of energy efficiency programs at specific load buses.[42] Mr. Silsbee of SCE took a similar tack by calculating the amount of demand response at relevant substations that, in his

[37] ISO-06, p. 14, lines 19-22; ISO-06, p. 12, lines 3-5; ISO-06, pp.16-18; ISO-06, p. 12, lines 14-16; ISO-06, p. 16, lines 21-23.
[38] CEJA-04, p. 29 (quoting Response of CAISO to CEJA"s First set of Data Requests, Response No. 6).
[39] *See, e.g.,* Tr., Vol. 3, p. 460, lines 8-24. (Millar, CAISO)
[40] Tr., p. 460, lines 12-14 and lines 20-24. (Millar, CAISO)
[41] *See, e.g.*, Tr., Vol. 4, p. 732, lines 2-20. *See also S*ection IV.C (the process proposed by SCE will not comply with the loading order.) (Cushnie, SCE)
[42] ISO-07, p. 254.

opinion, could contribute to reducing local reliability need.[43] Before approving any LCR need, the Commission should insist that CAISO explore use of uncommitted and incremental preferred resources to meet the LCR need.

CAISO"s bias toward new fossil-fueled resources is further illustrated by its unsubstantiated claim that flexibility requirements should be considered as part of the LCR need finding. CAISO once again argues that the only resources that it knows can meet the flexibility requirements are natural gas plants.[44] CAISO outlines a list of flexibility requirements that have never been publicly vetted.[45] Ms. Myers specifically asks Mr. Millar about these requirements: "[Question] Again, though, this is your list of characteristics which hasn't been adopted anywhere and we haven't had a stakeholder process to really examine or adopt any such criteria; is that correct? -- [Answer] That is correct."[46] CAISO"s declaration of flexibility requirements to justify procurement of natural gas plants for LCR need should be rejected.[47] As the Commission is well aware, the issue of operational flexibility requirements will be discussed next year in Track 2.[48] Thus, decisions regarding flexibility should not be made until the analysis has been done.

2. SCE Cannot Rely On CAISO Studies to Meet its AB 57 Burden.

SCE has not met its AB 57 burden for justifying upfront recovery on any potential LCR need procurement. SCE must demonstrate that it will "meet its unmet resource needs through all available energy efficiency and demand reduction resources that are cost effective, reliable,

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[43] Tr., Vol. 6, p. 1079, lines 14-18. (Silsbee, SCE)
[44] *See e.g.* Tr., Vol. 3, p. 460, lines 12-14 and lines 20-24.
[45] Tr.,Vol. 3, p. 441, lines 1-6 (Millar, CAISO)
[46] *Id.*
[47] Tr., Vol. 3, p. 460, lines 12-14 and lines 20-24.
[48] *See* Scoping Memo, p. 10.

and feasible."[49] By outlining a plan to do future analysis of how preferred resources such as energy efficiency and demand reduction can reduce LCR need, SCE implicitly admits that it has not done the work to meets its burden of proof.

SCE"s acceptance of CAISO"s proposed LCR procurement need does not meet SCE"s burden, because CAISO refuses to account for uncommitted energy efficiency and incremental demand response. SCE"s testimony highlights the utility"s uncertainty about the accuracy of CAISO"s need determination. SCE plans to redo the whole analysis to determine the amount of procurement and the best mix of resources.[50] SCE will complete this analysis because, as Mr. Cushnie explained during the evidentiary hearing, the utility is concerned about potentially undervaluing preferred resources in the need determination, and wasting resources on over-procurement as a result.[51] Over-procurement of conventional resources not only impacts the ratepayer but could possibly damage SCE"s credit rating. [52] Preferred resources such as EE and demand response would not create the same financial risk. As Mr. Cushnie stated, "[i]t is our hope that in considering all options including transmission and preferred resources that we would not need to procure up to either of those levels."[53] Before procurement can be authorized, SCE must demonstrate that it has considered all energy efficiency and demand response and arrived at an LCR need number that complies with AB 57. At this point, the evidence unequivocally demonstrates the necessary analysis has not been done.

[49] Public Utilities Code § 454.5(b)(9)(C).
[50] Tr., Vol. 4, p. 732, lines 2-20. (Cushnie, SCE)
[51] Tr., Vol. 4, p. 729, line 26-p. 730, line 5. (Cushnie, SCE)
[52] Tr., Vol. 5, p. 840, line 23-p. 841, line 20. (Hunt, SCE)
[53] Tr., Vol. 4, p. 604, lines 3-6. (Cushnie, SCE)

Furthermore, the Commission cannot approve a feature of a procurement plan that "would lead to a deterioration of an electrical corporation's creditworthiness."[54] Here, SCE has testified that procuring the amount of generation proposed by CAISO may affect its creditworthiness.[55] Consequently, the Commission should not grant approval of the LCR request as recommended by CAISO and accepted by SCE.

B. CAISO's Dismissal Of Preferred Resources, Including Uncommitted Energy Efficiency, Demand Response, Combined Heat and Power, and Distributed Generation, In Determining Future LCR Needs Undermines California's Clean Energy Programs and Goals.

CAISO turns the loading order upside down by creating a framework that favors local conventional generation over preferred resources, the exact opposite of what is required by the loading order. As the loading order states, "[a]ll utility procurement must be consistent with the Commission"s established loading order."[56]

> The loading order identifies energy efficiency and demand response as the State"s preferred means of meeting growing energy needs. After cost-effective efficiency and demand response, we rely on renewable sources of power and distributed generation, such as combined heat and power applications. To the extent efficiency, demand response, renewable resources, and distributed generation are unable to satisfy increasing energy and capacity needs, we support clean and efficient fossil-fired generation. Concurrently, the bulk electricity transmission grid and distribution facility infrastructure must be improved to support growing demand centers and the interconnection of new generation, both on the utility and customer side of the meter.[57]

This Commission"s decision in Track II of the 2010 LTPP explained that compliance with the loading order is an on-going obligation.[58] That decision reiterates "the centrality of the loading

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[54] Public Utilities Code § 454.5(c).
[55] SCE-01, p. 27, lines 10-14.
[56] D.12-01-033, p. 17.
[57] Energy Action Plan II Implementation: Roadmap for Energy Policy (Sept. 2005) p. 2; see also D.07-12-052, p.12
[58] D.12-01-033, p. 20.

order and . . . direct[s] the utilities to procure all of their generation resources in the sequence set out in the loading order."[59]

Here, the energy agencies questioned CAISO"s input assumption regarding preferred resources, and as a result CAISO performed a sensitivity study "at the request of the state agencies (CARB, CEC and CPUC)."[60] This sensitivity study includes assumptions provided by CPUC and CEC regarding incremental uncommitted energy efficiency and additional combined heat and power.[61] CAISO still excludes all demand response in the study.[62]

Despite completing the sensitivity study, CAISO advocates rejecting the recommendations of the state agencies and is adamant in not counting uncommitted energy efficiency and CHP.

> ISO treats these studies in which incremental uncommitted energy efficiency and additional combined heat and power as ***sensitivity studies***, which were requested by the state energy agencies (i.e., the CPUC and CEC) to evaluate the impact to potential generation need in the LA Basin area had these programs materialized. The ISO considers these studies as sensitivity studies due to the uncertain nature of these programs whether they would materialize at the forecasted locations.[63]

CAISO"s refusal to consider any non-zero projections of preferred resources taints its credibility with respect to the sensitivity study and its LCR analysis.

CAISO"s critique of the state agencies" proposed assumptions used in the sensitivity study should be dismissed as unreasonable. Mr. Sparks, in his supplemental testimony presenting the revised sensitivity study, offered numerous reasons that the Commission should not consider the study when determining LCR need in the LA Basin and Big Creek/Ventura areas. These reasons ignore state policy goals to discount EE, CHP, DG, and the cost of procurement.

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[59] *Id.*, p. 21.
[60] ISO-09, p.2.
[61] ISO-09, p.2.
[62] Tr., Vol. 8, p. 1340, line 18 – p. 1341, line 6. (Sparks, CAISO)
[63] ISO-09, p. 2 (original emphasis).

Uncommitted EE should be included in planning exercises, and should be analyzed as a potential strategy for decreasing LCR need. Yet, Mr. Sparks asserts that uncommitted energy efficiency cannot be relied upon to preserve grid reliability.[64] As noted in the Natural Resources Defense Council"s ("NRDC") opening testimony, the term "uncommitted" does not mean that resources are unreliable or unlikely to come on-line; in fact, the California Energy Commission ("CEC") defines uncommitted EE as EE programs that are "reasonably expected to occur."[65] Mr. Silsbee, during cross examination, said that EE at the local level can lower LCR need, given appropriate studies and levels of granularity.[66]

By ignoring state policy goals, Mr. Sparks discounts the inclusion of CHP additions to the system by claiming that they will replace retiring facilities.[67] The 2011 Integrated Energy Policy Report ("2011 IEPR") that Mr. Sparks cites in making this claim notes that the CHP forecast needs to be updated to reflect new policy goals and growth for CHP.[68] CEC has responded to this need by commissioning ICF International to assess CHP in California.[69] The ICF report estimates in its base case that CHP resources will grow by 1.5 GW by 2020.[70] Yet, CAISO"s analysis estimates zero CHP growth over the next ten years. Additionally, SCE"s witness Mr. Cushnie affirms that CHP can be used to meet LCR need.[71]

Lastly, Mr. Sparks suggests that the DG assumptions used in the sensitivity analysis are not reliable. The sensitivity analysis uses the DG estimate from the environmentally constrained scenario. As DRA and Vote Solar note in their opening testimony, disregarding the DG estimates

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[64] ISO-02, p. 4, lines 15-19.
[65] NRDC-01, p. 3, (quoting California Energy Demand 2010-2020, Adopted Forecast).
[66] Tr., Vol. 6, p. 1067, lines 1-6.
[67] ISO-02, p. 6, lines 7-10.
[68] 2011 IEPR, in CCC-01, p. 7, lines 18-20.
[69] CCC-01, p. 7, lines 27-32.
[70] CCC-01, p. 8, lines 13-14.
[71] Tr., Vol. 4, p. 730, lines 21-27. (Cushnie, SCE)

used in the environmentally constrained scenario ignores growth in DG as a result of Commission decisions and state policy goals.[72] Given that CAISO"s recommendation would disregard state policy, actual ongoing growth in the use of preferred resources, and the potential for further growth based on current trends, LCR need in the LA Basin should be analyzed in a study that considers preferred resources. As discussed *infra* in Section III.A, the sensitivity study is a good starting point for LCR analysis, but it still contains overly conservative assumptions, such as no demand response, that should be adjusted to calculate a more realistic LCR need number.

C. Not Applicable.

D. CAISO Improperly Dismissed Transmission And Other Means Of Mitigation To Reduce LCR Need.

1. Transmission Mitigation Can Lower LCR Need

Prior to approving any LCR need, the Commission should require CAISO to fully consider the transmission fixes discussed below and analyze other potential fixes in order to produce a reliable and accurate assessment of LCR need. Transmission mitigation can reduce the need for new generation in the LA Basin and Big Creek/Ventura LCR areas. Improving transmission in the LCR area not only decreases need, but can do so more effectively than siting new conventional generation in less effective locations.[73]

In the LCR Study, CAISO did evaluate some transmission solutions. As an example of the role transmission mitigation can play in meeting need, CAISO included a 600 MW load

[72] *See* DRA-03, p. 8, lines 9-13; Vote Solar-01, p. 3, lines 15-19 ("Acceptance of the CAISO"s positions regarding "uncommitted resources forgoes the potential 2021 benefits of energy efficiency, demand response, and distributed generation programs already in the pipeline as of 2012 (the so-called incremental amounts), as well as the potential 2021 benefits that might accrue from further efforts that the commission might undertake in this direction.")

[73] *See, e.g.*, Tr., Vol. 1, p. 84, line 16 – p. 85, line 20 (Mr. Sparks testifies that the 600 MW load transfer from Mira Loma to Rancho Vista would reduce need by 2,000 MW – 3,000 MW because the replacement generation would not be highly effective).

transfer from Mira Loma substation to Rancho Vista substation. The load transfer has the potential to reduce need in the LA Basin by 2,000-3,000 MW.[74] This load transfer and the 2,000-3,000 MW load reduction it would produce were included in the CAISO OTC study.[75] CAISO also included the Del Amo-Ellis loop into the Barre 230 kV substation. Because the project had an expected in-service date of June 1, 2012, CAISO assumed its existence when completing the OTC study.[76]

Not all transmission fixes currently in existence, however, were included in CAISO"s LCR Study. A special protection system ("SPS") that would eliminate need in the Ellis sub-area was not assumed in existence when completing the OTC study, though "[t]his SPS is currently operational and is maintained by SCE."[77] Commission staff have also asked CAISO to produce a more thorough evaluation of transmission solutions that could reduce need. Ms. May quotes the letter that the Commission staff sent to CAISO regarding CAISO"s 2012-2013 Transmission Plan: "Transmission improvements for a future ISO transmission topology that reduce LCR requirements in sub-areas also needs to be examined, which the ISO has not addressed in a systematic manner."[78] As the Commission has acknowledged, CAISO should not only give more weight to transmission fixes that reduce or eliminate sub-area need (such as the SPS in the Ellis sub-area) but also undertake a comprehensive review of potential transmission fixes that can meet any remaining LCR need.

SCE assumes that some transmission fixes in the LCR area could indeed reduce need, but has not done any studies to ascertain the extent of such reduction. As of yet, SCE has not

[74] ISO-03, p. 4, lines 16-17.
[75] Tr., Vol. 1, p. 85, line 22 – p. 86, line 16. (Sparks, CAISO)
[76] ISO-01, p. 10, lines 14-17.
[77] ISO-01, p. 10, lines 17-22 (quote is at lines 21-22).
[78] CEJA-04, p. 32 (quoting Comments of the Staff of the California Public Utilities Commission on the Draft Study Plan (March 14, 2012)).

evaluated any transmission fixes.[79] The utility cannot rule out any of the potential fixes that have been suggested, and believes that it may discover transmission fixes for the LCR area during its annual transmission study.[80] SCE, for example, says that it will explore the expansion of the 230 kV system into the Western LA Basin, a fix that has not yet been evaluated but which CAISO raised as a possibility in response to a CEJA data request.[81] SCE also noted that CAISO has not considered additional transmission beyond 2021, even though additional transmission beyond that date would impact their LCR study results.[82] A thorough analysis of how transmission mitigation will impact LCR need is critical information that the Commission needs to review before authorizing any new procurement. A more in-depth analysis is needed, particularly since such an analysis could preclude the construction of costly and unnecessary new generation.

2. Mitigation Options Providing Reactive Support Can Reduce LCR Need

Providing reactive support may be another way to reduce LCR need. SCE witnesses indicated that rather than construct new generation, shunt capacitors, static VAR compensators, and synchronous condensers can provide reactive support.[83] SCE typically relies on shunt capacitors when there are voltage issues.[84] Synchronous condensers provide not only reactive support but also inertia, as generating units do; they play an important role in regulating the

[79] Tr., Vol. 5, p. 780, line 14 – p. 783, line 8 (Commissioner Florio questioning SCE"s Witness Ms. Cabbell).
[80] Tr., Vol. 5, p. 778, lines 1-28; Tr., Vol. 5, p. 782, line 28 - p. 783, line 17.
[81] CEJA-04, p. 35; R. 12-03-014, Evidentiary Hearing, p. 795, line 24 – p. 796, line 3, (quoting Response of CAISO to CEJA"s set of data requests, Response No. 13).
[82] SCE-01, p. 8, lines 22-25. ("…the CAISO has not investigated adding transmission facilities beyond the 2021 transmission configuration used in its analysis of need for LCR resources in the LA Basin. If additional transmission facilities are identified through specific transmission technical studies, the CAISO"s analysis would need to be re-run.")
[83] Tr., Vol. 5, p. 780, line 22 – p. 781, line 2.
[84] Tr., Vol. 5, p. 781, line 7-14.

transmission system.[85] These options should be fully considered in the LCR area, as they can prevent the need for new generation, particularly since voltage issues are responsible for many of the system reliability challenges that CAISO identifies.[86] These mitigation options have not been fully evaluated, as SCE has not completed a transmission study for the area, and CAISO"s analysis did not thoroughly examine these options.[87] Witnesses from a wide range of parties – SCE, DRA, CEJA, and Calpine – have all stated that transmission solutions can reduce need for new generation.[88] Prior to a Commission decision determining LCR need, CAISO and SCE should be required to complete a thorough analysis of the transmission fixes available and how they will impact need.[89]

III. THE COMMISSION SHOULD FIND NO LCR NEED IN BOTH THE LA BASIN AND BIG CREEK/VENTURA AREA.

A. The LCR Need Finding for the LA Basin Should Be Zero.

Based on the testimony and evidentiary hearing, the Commission should make a finding of zero LCR need. That the LCR need for the area is in fact zero is demonstrated through reasonable adjustments to CAISO"s sensitivity analysis that correct for CAISO"s omissions and underestimates of preferred resource deployment. The evidence shows that SCE can meet LCR need in the Western LA Basin by accounting for demand response and increased distributed generation and energy efficiency in addition to transmission fixes and the use of the most recent load forecast. Moreover, if need does arise, it can be identified in the next round of the LTPP.[90]

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[85] Tr., Vol. 3, p. 360, lines 11 – p. 361, line 3. (Millar, CAISO)
[86] CEJA-04, p. 34 (quoting CAISO 2011/2012 Transmission Plan).
[87] Tr., Vol. 5, p. 780, lines 2-13; SCE-01, p. 8, line 19 – p. 9, line 14.
[88] Tr., Vol. 4, p. 604, lines 3-6; Tr. Vol. 5, p. 778, lines 1-22; DRA-06, p. 5, lines 6-10; CEJA-04, p. 35; Calpine-02, p. 2, lines 9-11.
[89] *See* Section IV.E (Sierra Club recommends that the Commission reassess the LCR need in next iteration of the LTPP).
[90] *See* Section IV.E (Sierra Club recommends that the Commission reassess the LCR need in next iteration of the LTPP).

Additionally, the analysis completed by Mr. Fagan, DRA"s witness, finds only 169 MW of LCR need, a number that is relatively close to zero and categorically different than CAISO"s recommendation.

CAISO presents the Commission with only two options from which to determine LCR need: the CAISO recommendation and the sensitivity study. CAISO aggressively advocates for its LCR study, but as discussed above, of the two options the sensitivity study more realistically recognizes that preferred resources play a significant role in reducing LCR need. Thus, the sensitivity study is the better starting point--albeit still overly conservative--for the LCR need analysis. With the appropriate adjustments as described below to account for the unreasonably conservative inputs in the sensitivity studies, the LCR calculation should end in a zero need finding. Moreover, accounting for decreased load in SCE"s service area in accordance with the 2012-2022 California Energy Demand forecast further reinforces a Commission finding of zero LCR need.[91]

Unlike the LCR Study, the sensitivity analysis included 1,121 MW uncommitted EE and 195 MW of CHP as available resources.[92] In this analysis, CAISO found a need for the Western LA area ranging from 1,042 MW to 1,677 MW.

Though CAISO"s sensitivity analysis includes more preferred resources than the original analysis, it still inappropriately excludes the more than 549 MW of demand response resources that are in use and reducing need right now. [93] During the evidentiary hearing, SCE witness Mr. Silsbee produced his calculation that there is currently at least 549 MW of demand response

[91] SierraClubxCAISO-01
[92] Tr., Vol. 1, p. 141, lines 4-7; p. 143, lines 1-8. (Sparks, CAISO)
[93] *See* Tr., Vol. 1, p. 137, line 24 – p. 138, line 2 (Mr. Sparks explaining that demand response is not modeled in the sensitivity analysis).

resources operating in the Western LA Basin.[94] This estimate does not include smaller demand response programs, such as demand bidding and capacity bidding.[95]

CAISO"s sensitivity analysis also fails to consider estimates of future demand response resources in the LA Basin. DRA witness Mr. Lasko and CEJA witness Ms. May, analyze demand response projections for the entire SCE area to estimate the amount of demand response that can be expected in the LA Basin at the end of the planning period.[96] Mr. Lasko estimates that, using the SCE 2011 *Demand Response Load Impact Evaluations Portfolio Summary*, there will be 1,550 MW of demand response resources available in the SCE area by 2020. He estimates that LA Basin demand is 81.2% of total SCE area demand (1,909 MW) and forecasts that LA Basin demand response resources will total 81.2% of 1,909 MW, or 1,550 MW.[97] Ms. May uses the amount of demand response included in CAISO"s environmentally constrained scenario, which is 2,829 MW. She estimates that the LA Basin demand accounts for 79% of SCE territory, and forecasts 79% of 2,829 MW, or 2,224 MW, as the amount of demand response in the LA Basin area.[98] Applying DRA"s estimate of demand response to CAISO"s LCR sensitivity analysis results produces a need estimate ranging from a 508 MW surplus to a 127 MW need in the LA Basin, while applying CEJA"s estimate of demand response results in a surplus ranging from 547 MW to 1,182 MW (*see* Table 1).[99]

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[94] Tr., Vol. 6, p. 1079, lines 12-18; p. 1080, line 2 - p. 1084, line 8; CEJAXSCE-03.
[95] Tr., Vol. 6, p. 1083, line 23 - p. 1084, line 3.
[96] DRA-04, p. 2, line 21 - p. 6, line 24; CEJA-04, pp. 18-22.
[97] DRA-04, p. 5, Figure 4; DRA-04, p. 6, lines 1-24.
[98] CEJA-04, p. 22.
[99] CAISO acknowledges that DR can meet LCR needs if certain conditions are met. DRA-01, p. 16, lines 19-20 (citing Sparks Rebuttal Testimony in A.11-05-023 5:21-7:7)

Table 1. Incorporating DR into CAISO Sensitivity Analysis*		
Using DRA's DR Estimate		
	Low Range (MW)	High Range (MW)
CAISO Sensitivity Analysis for LCR Need	1042	1677
DRA's DR Estimate	1550	1550
Remaining LCR Need	**-508**	**127**
Using CEJA's DR Estimate		
	Low Range (MW)	High Range (MW)
CAISO Sensitivity Analysis for LCR Need	1042	1677
CEJA's DR Estimate	2224	2224
Remaining LCR Need	**-1182**	**-547**
*Negative numbers represent surplus, while positive numbers represent need.		

Though the need estimates above more thoroughly analyze and incorporate preferred resources than CAISO"s analysis, LCR need estimates can be refined even further, with the inclusion of an updated DG estimate, transmission fixes, and an updated load forecast. Mr. Fagan indicated in his reply testimony that additional DG and transmission fixes and would further reduce need in the LA Basin.[100] SCE witnesses Mr. Cushnie and Ms. Cabbell also stated that transmission fixes may exist, as described in section II.D, which can further reduce need.[101]

The DG amounts utilized in the sensitivity analysis are overly conservative relative to the estimate in the 2011 IEPR. The IEPR projected the amount of DG that would be developed in response to Governor"s Brown call for 12,000 MW of DG in California by 2020. The Energy

[100] DRA-06, p. 4, lines 10-12.
[101] Tr., Vol. 4, p. 604, lines 3-6; Tr., Vol. 5, p. 778, lines 1-22.

Commission projected regional targets for implementation of the goal which include 4,000 MW of DG in Los Angeles city and county and 470 MW of DG in Orange County.[102] Portions of each of these regions are within SCE territory.[103] The DG estimate used for the LA Basin should comply with the Governor"s DG goal and include the relevant portions of these regional targets. Although the record does not contain a specific breakdown of the DG attributable to the SCE area, the Commission should take into account the Governor"s policy direction and anticipate the future of the grid, which will include much more distributed generation.

Despite its position at the top of the preferred loading order, EE has not yet been fully evaluated by CAISO or SCE, even in CAISO"s sensitivity analysis. CAISO"s sensitivity analysis includes 1,121 MW of EE.[104] This figure was based on the portion of EE savings estimated in the 2010 LTPP that will occur in the LCR area.[105] This essentially suggests that no new viable EE strategies have been implemented since the 2010 LTPP, which testimony from NRDC proves is an entirely false assumption.[106] CAISO has stated that incorporating effective EE into LCR need analyses would reduce load.[107] Before approving LCR need, the Commission must insist on a realistic assessment of future EE and its ability to reduce load in the area.

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[102] ISO-12, p. 33.
[103] Tr., Vol. 6, p. 1049, line 2 – p. 1051, line 2 (Silsbee, SCEE).
[104] Tr., Vol. 1, p. 141, lines 4-7. (Sparks, CAISO)
[105] NRDC-01, pp. 6-7.
[106] *See* NRDC-01, p. 7 (CAISO" estimate "excludes significant amounts of savings from new efficiency standards and programs, such as: California"s 2010 Television Efficiency Standard, California"s 2012 Title 20 Battery Charge Standard, Federal Commercial Refrigerator and Freezer Standards, Federal Clothes Washer Standards, Federal Small Motors Standards, [and] Federal Vending Machine Standards.")
[107] *See* Tr., Vol. 1, p. 80, lines 9-18 ("And once we modeled that based on that assumption that the energy efficiency was effective in reducing the load during the conditions, it did reduce the LCR need" (quoting lines 14-18).)

Using the most recent load forecast would also likely eliminate any projection of LCR need. The 2012-2022 California Energy Demand forecast ("2012 forecast") is available and is the most appropriate forecast to use, rather than the outdated 2010-2020 California Energy Demand forecast ("2009 forecast") used in the CAISO analysis. The 2012 forecast shows that load for the 1-in-10 case has decreased in SCE territory relative to the 2009 forecast across all scenarios.[108] For example, the high load scenario in the 2012 forecast estimates a load of 27,876 MW for 1-in-10 temperatures, while the 2009 forecast estimates a load of 28,578 MW for 1-in-10 temperatures.[109] The decrease in demand from the 2009 forecast to the 2012 forecast ranges from 702 MW (for the high case) to 3,054 MW (for the low case) (*see* Table 2).

Table 2. Comparing 2010 and 2012 California Energy Demand forecasts (1-in-10 temperatures)

	2012 forecast (MW)	**2009 forecast (MW)**	**Difference (MW)**
High	27,876	28,578	**-702**
Mid	26,958	28,578	**-1,620**
Low	25,524	28,578	**-3,054**

*Negative numbers represent surplus, while positive numbers represent need.

Table 1 showed that, after incorporating demand response into the CAISO"s sensitivity analysis results, the highest need estimate would be 127 MW. By incorporating demand response and using the most recent and accurate load forecast, any remaining projection of LCR need should be eliminated. Including appropriate amounts of distributed generation and EE in the analysis, as described above, will only increase the surplus.

Mr. Fagan"s analysis also supports a finding of little or no need. DRA utilizes a different methodology from CAISO in its need analysis, but reaches a need finding comparable to CAISO"s, and then quantifies the amount of demand response expected in the LA Basin to reach

[108] SierraClubxCAISO-01; Tr., Vol. 3, p. 471, lines 1-12. (Note, the transcript references Exhibit No. Sierra Club 1 in one spot (Tr., Vol. 3, p. 468, lines 25-26), but for consistency the document is referred to as SierraClubxCAISO-01.)
[109] SierraClubxCAISO-01.

a far lower LCR need determination.[110] As mentioned above, CAISO"s need range was 1,042 MW to 1,677 MW in its sensitivity analysis, while need in the DRA analysis, with the same criteria, was 1,111 MW.[111] When DRA incorporated need demand response reductions into its analysis, it reached a final need determination of 169 MW in 2021 and 278 MW in 2022.[112]

The Commission should find that there is no LCR need, because the sensitivity study should be adjusted to include 1,550 MW – 2,224 MW of demand response and the percentage of the 12,000 MW of distributed generation that will be sited in the LCR area. The study should also include a realistic projection of future EE and be based on the more up-to-date 2012 load forecast. Even if there is a minimal need left over such as the 169 MW identified by Mr. Fagan the Commission should assess the ability of transmission fixes to reduce the remaining number to zero.

B. The LCR Need Finding for the Big Creek/Ventura Area Should be Zero.

There is no need for procurement in the Big Creek/Ventura LCR area in this proceeding. The analysis completed by Mr. Fagan indicates that rather than a 430 MW need, as reported by CAISO, there will be a surplus in the Big Creek/Ventura area.[113] SCE testifies that procurement in the Big Creek/Ventura area can be deferred until 2014.[114] It states: "Finally, the Commission should defer procurement of the 430 MW identified by the CAISO to replace Once Through Cooling (OTC) generation in the Big Creek/Ventura area until the 2014 LTPP, because this need does not have to be addressed now."[115] Based on both DRA"s and SCE"s testimony, the

[110] Tr., Vol. 8, p. 1342, lines 12-21.
[111] Tr., Vol. 8, p. 1340, lines 6-16; Tr., Vol. 8, p. 1341, line 21 – p. 1342, line 11.
[112] DRA-06, p.4, lines 4-9.
[113] DRA-01, p. 19, Table RF-3; ISO-01, p. 6, Table 1.
[114] SCE-01, p. 3, lines 1-3.
[115] *Id.*

Commission should find no LCR need in this area.

IV. THE PREFERRED LOADING ORDER SHOULD BE A FUNDAMENTAL PREDICATE FOR THE PROCURMENT OF LCR RESOURCES.

A. Not Applicable.

B. Not Applicable.

C. If A Need Is Determined, Compliance with the Loading Order Should Direct How LCR Need Is Met, but the Record Is Insufficient to Create a Process that Complies with the Loading Order.[116]

If a LCR need is found, the LCR need should be met by scrupulous compliance with the loading order and California"s other clean energy policies. There is no dispute that the loading order is the ultimate energy policy for the state. As discussed above, the Commission reaffirmed the importance of the loading order in the last iteration of this proceeding by reiterating "the centrality of the loading order and . . . direct[ing] the utilities to procure all of their generation resources in the sequence set out in the loading order."[117] Unfortunately, the record contains insufficient information to create a process that sufficiently addresses the loading order. The Commission should further explore the best method for ensuring that all procurement for any LCR need strictly follows implementation of the loading order.

SCE"s request that the Commission trust SCE to choose the appropriate amount of LCR procurement without on-going Commission oversight should be rejected. SCE proposes that the Commission adopt CAISO"s proposed ranges for LCR need,[118] but SCE proposes that it will redo the whole analysis over a period that could take two years.[119] SCE proposes separate tracks for conventional and preferred resources. For the natural gas plants, SCE intends to engage in a

[116] This section also addresses headings IV A. & B. from the Common Briefing Outline.
[117] D.12-01-033, p. 21.
[118] Tr., Vol. 4, p. 728, lines 20-23. (Cushnie, SCE)
[119] Tr., Vol. 4, p. 728, lines 10-15. (Cushnie, SCE)

procurement path by issuing an RFO for the resources authorized by CAISO. While the RFO is in process, SCE plans to analyze the feasibility of preferred resources. Once SCE has received bids in the RFO process it would then compare these bids to its initial analysis of preferred resources. If preferred resources meet an initial threshold, then SCE would further analyze preferred resources against a cost-effectiveness metric. After that, a transmission study would be completed to assess the viability of the preferred resources.[120] Additionally, SCE states that it would comply with AB 32 but provides absolutely no analysis or detail on how this will occur.[121] SCE simply states that it will comply with the law.[122] As discussed, meeting LCR need should comply with California"s clean energy policies and its greenhouse gas reduction mandates.

This proposal would do a disservice to the loading order, because it biases the outcome by commencing procurement activities for conventional plants while not doing the same for preferred resources. SCE proposes a variation of CAISO"s proposal that has the same effect of turning the loading order on its head by proposing to primarily promote the funding and building of new natural gas plants in the 2020-22 timeframe when California should be decarbonizing its electric system. There is no analysis in the record of the environmental effects of CAISO"s proposal. CAISO"s assertions that it is promoting the state"s energy and environmental policies are not supported by evidence in the record.

An alternative to SCE"s proposal is an all-source RFO where preferred resources compete with conventional resources. In this process, the preferred resources are at least considered at the same time procurement is done for conventional resources. However, as Mr. Cushnie explained this approach disadvantages the preferred resources because the current RFO system

[120] Tr., Vol. 4, p. 731, line 21 – p. 734, line 12.
[121] Tr., Vol. 4, p. 738, lines 9 – 21.
[122] Tr., Vol. 4, p. 738, line 22 – p. 739, line 2.

would disadvantage preferred resources to the point to where those resources are not chosen.[123] Other testimony from CEJA, the California Cogeneration Council ("CCC"), the California Energy Storage Alliance ("CESA"), and EnerNOC agreed with this assessment.[124]

Neither SCE"s proposal nor an all-source RFO will ensure implementation of the loading order. Therefore, the record is not sufficiently developed to ensure compliance with the loading order. The Commission should keep this issue open and further develop information on how to implement the loading order.

D. Not Applicable

E. Authorization of LCR Need Procurement Should Be Deferred to Next Iteration of the LTPP

SCE"s proposal to redo CAISO"s analysis over the next two years undermines the need to authorize procurement now. SCE proposes to update all the information in CAISO"s LCR study including the load forecast and the penetration of distributed generation. SCE also proposes to make projections for the other preferred resources and to include a new transmission analysis.[125] "It is [SCE"s] hope that in considering all options including transmission and preferred resources that we would not need to procure up to either of those levels."[126] SCE"s proposal is simply confirmation that the LCR need analysis provided to date is not appropriate for justifying LCR need approval by the Commission.

The next iteration of the LTPP is the proper place to further address LCR need. Mr Fagan, DRA"s witness, makes a persuasive case that the LCR decision can be delayed and that

[123] Tr., vol. 4, p. 629, lines 6-9; Tr., vol. 4, p. 609, lines 8-14.
[124] CEJA-05, p. 12; CCC-02, p. 2, line 37 - p. 5, line 25; CESA-02, p. 7, lines 4-7; EnerNOC-03, p. III-9, lines 7-13.
[125] Tr., Vol. 4, p. 753, line 20-p. 754, line 9 (Florio and Cushnie); Tr., Vol. 4, p. 757, lines 4-16 (Florio and Cushnie); Tr., Vol. 4, p.612, lines 16-25.
[126] Tr., Vol. 4, p. 604, lines 3-6.

the biannual nature of the LTPP provides a good framework for reassessing the LCR need.[127] Sierra Club agrees that this analysis needs to be redone, but Sierra Club differs with SCE"s proposal to do the analysis and then present its updated findings in an application. [128] The Commission should reject SCE"s proposal to use the application process, because the determination of LCR need and the resource mix to address that need involves important policy decisions that demand public input. Accepting SCE"s proposal would divest this important analysis from the LTPP where it belongs and would greatly reduce the ability of intervenors to participate. Furthermore, as explained *supra*, if the Commission accepts SCE"s proposal, the analysis will favor new generation because those procurement process will be much further along than SCE"s procurement of preferred resources to meet LCR need. Addressing LCR need in the next cycle of LTPP also makes sense from a system perspective. Track 2 of this proceeding will address the issue of system need and operational flexibility requirements. Findings about these issues can inform the decision about the type of procurement, if any, that would be beneficial to the system as well as local capacity. The converse, i.e. making the local capacity decisions first risks over-procurement because CAISO"s proposal would flood the system with unnecessary natural gas plants.

V. INCORPORATION OF FLEXIBLE CAPACITY ATTRIBUTES IN LCR PROCUREMENT

A. If A Need Is Determined, Should Flexible Capacity Attributes Be Incorporated Into Procurement

No. *See* last paragraph of section II.A.1.

B. Not Applicable

[127] Tr., Vol. 5, p. 916, line 11 – p. 922, line 20.
[128] Tr., Vol. 4, p. 734, line 26 – p. 735, line 5. (Cushnie, SCE)

VI. NOT APPLICABLE

VII. OTHER ISSUES

A. Not Applicable

B. Not Applicable

C. Not Applicable

D. Not Applicable

E. Energy Storage Should Be Considered in the LCR Analysis

Energy storage has been ignored in this track,[129] despite its ability to support the integration of intermittent renewable resources and provide inertia to the system.[130] California, through its energy policies, has adopted policies to create a clean energy future, and energy storage is an integral part of the successful implementation of that vision.[131] Storage is a better choice than conventional generation when meeting ramping requirements. According to an SCE report, "30-50 MW of storage is equivalent to 100 MW of conventional generation."[132] Storage also reduces the need for peakers, which is particularly important in this case, where peakers will be necessary if conventional generation is needed in the LCR area.[133] In response to a Vote Solar data request, CAISO recognizes that "it is likely that some of the need could be met by the storage specified in the question."[134] In light of the benefits storage provides the system, the Commission should account for the impact storage will make on the energy grid in the coming

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[129] CESA-01, p. 10, lines 6-7; CEJA-001, p. 14

[130] CEJA-04, p. 30; CEJA-001, p. 14.

[131] *See* CESA-01, p. 3, lines 10-17. ("The grid today is not the grid that we've known for the last 50 years…Looking forward, this evolving grid will require increasing flexibility, intelligence, and diversity to remain reliable, sustainable, efficient, and effective. Energy storage is a crucial asset in this energy future – and thus needs support and emphasis at all levels…")

[132] CEJA-04, p. 30 (quoting Moving Energy Storage from Concept to Reality: Southern California Edison's Approach to Evaluating Energy Storage).

[133] CESA-01, p. 4, lines 5-14; CESA-01, p. 5, lines 5-7.

[134] CEJA-04, p. 29-30 (quoting Response of CAISO to Vote Solar's First Set of Data Requests, Response No. 4(d)).

ten years when determining LCR need. While Mr. Millar recognizes that storage could play a role,[135] CAISO"s proposal does not provide a mechanism for analyzing the effect of storage. Including energy storage in the analysis is yet another reason that the LCR need determination should be made in the next iteration of the LTPP.

VIII. CONCLUSION

The State and the IOUs have invested in preferred resources and alternatives to new generation for years. This procurement proceeding presents the Commission, CAISO, and IOUs with the opportunity to deploy these strategies and technologies to move away from dependence on finite resources and toward a sustainable energy system. However, rather than promoting a change to a new, low-carbon energy system based on renewable energy, CAISO promotes a return to a different time when fossil fuel was the answer to all of the State"s LCR need. CAISO makes a policy recommendation based on its refusal to acknowledge that the energy world is changing. The Commission should reject CAISO"s recommendation and instead make a finding of zero LCR need in both the Western LA Basin and the Big Creek/Ventura Area. Furthermore, LCR need should be reanalyzed in the next iteration of the LTPP. Alternatively, if any LCR need is found, the Commission should ensure that this need is filled in strict compliance with the loading order. This approach will necessitate further exploration of how to comply with the loading order.

For the foregoing reasons set forth in the brief, Sierra Club respectfully requests that the Commission adopts its recommendations in Section I.

[135] Tr., Vol. 3, p. 461, lines 3-16.

Respectfully submitted,

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