

**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.	Rulemaking 12-03-014
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**COMMUNITY ENVIRONMENTAL COUNCIL REPLY COMMENTS ON
WORKSHOP TOPICS**

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COMMUNITY ENVIRONMENTAL COUNCIL REPLY COMMENTS ON WORKSHOP TOPICS

The Community Environmental Council (“Council”) respectfully submits these reply comments pursuant to the Administrative Law Judge’s ruling from Sept. 14, 2012.

The Council is a member-supported environmental non-profit organization formed in Santa Barbara in 1970 and is the leading environmental organization in the Central Coast region of California. In 2004, the Council shifted its primary focus to energy and transportation issues and is spearheading a regional effort to wean our communities from fossil fuels, on a net basis, during the next two decades. The Council is almost unique in combining on-the-ground work on a number of energy and climate change-related issues with concurrent work on state and federal policy issues. The Council’s state policy work is directly informed by experience with what has worked, or is likely to work, at the local level. More information on the Council and its energy programs may be found at www.cecsb.org.

I. Discussion

a. CAISO

The Council is pleased to read that CAISO officially supports the Loading Order (Opening Comments, p. 3): “The ISO supports the EAP Loading Order; however, the policy must be pursued in the spirit of maintaining or enhancing system reliability.” We also agree that system reliability is of the utmost importance while implementing the Loading Order. While CAISO supports the Loading Order in its comments, the Council remains concerned that CAISO is not in practice supporting the Loading Order. During the CAISO presentation at the Sept. 19 operating flexibility workshop it was fairly clear that CAISO’s modeling has largely ignored the loading order by omitting consideration

of preferred resources before conventional resources are considered. CEJA demonstrated very well in their Track I opening brief that CAISO's modeling of LCR in the LA Basin omitted very substantial amounts of preferred resources that should be included in calculating LCR. We hope that CAISO's most recent comments on the Loading Order reflect a true change in practice on these key issues.

With respect to CAISO's opening comments, CAISO seems to be of two minds regarding the ability of preferred resources to meet LCR and maintain system reliability. CAISO recognizes that resources that reduce demand – energy efficiency, in particular – are as good or better than conventional generation for meeting LCR, specifically because they reduce demand and thus eliminate any need for additional capacity (p. 4): “[B]y permanently reducing demand, energy efficiency represents load that no longer has to be served, balanced, or backed by operating reserves; it is a measurable and provable load reduction.”

CAISO also states (p. 2, emphasis added). “[A]ll resources, regardless of size, configuration, or type must fundamentally deliver the operating characteristics that can measurably support grid reliability by helping to balance supply and demand or by eliminating the need to do so.” Again, by eliminating (reducing) demand, preferred resources like energy efficiency, demand response, on-site renewables and in many cases distribution grid-interconnected wholesale renewables (Wholesale Distributed Generation or WDG), eliminate the need for LCR entirely, sometimes on a more than one-to-one basis when compared to conventional generation.

CAISO also states, however (p. 5): “As illustrated by the operating characteristics listed above, the more flexible the future fleet, the more secure the future grid.... In contrast, a plan that develops less flexible resources is less prepared to absorb greater than expected variability.” We agree with this statement on its face, but this statement should also include the strong clarification that resources that reduce demand are better for grid reliability than “flexible resources.”

Similarly, CAISO focuses on dispatchability as key for meeting LCR and maintaining grid reliability (p. 3): “Dispatchable resources are those resources that are integrated into the ISO market, can follow schedules and or are available to receive and respond to dispatch instructions from the ISO when and where needed; non-dispatchable resources are not.” CAISO’s statement would be more accurate if it acknowledged that a plan that includes maximum demand reduction alongside dispatchable and/or flexible resources is most prepared “to absorb greater than expected variability.” Moreover, demand-reducing resources allow existing dispatchable and flexible resources and other LCR resources to be more effective because these resources have less demand to balance, amplifying their impact.

A key point that should be fleshed out in this proceeding is to establish what constitutes “demand reduction.” Traditionally, only on-site energy efficiency, demand response or net-metered (NEM) renewables were considered demand reduction. With respect to generation, determining what constitutes demand reduction hinges on the degree to which CAISO “sees” any distinction between EE, NEM generation or WDG, which interconnects to the distribution grid, by definition. It seems that there should be no distinction between traditional demand-side resources and WDG, from CAISO’s perspective, as long as the WDG comprises less than the minimum coincident load on the substation at issue. This test is in fact the new supplemental review screen (Screen N) for Fast Track interconnection eligibility under Rule 21.¹ If the facility at issue, or the aggregate of facilities on that substation, produces less than the minimum coincident load, power will not flow back onto the CAISO-controlled grid. Accordingly, it seems that WDG that comprises less than the minimum coincident load should rightly be considered demand reduction in the same way that EE, DR and NEM renewables

¹ Screen N states, in part: “[I]s the aggregate Generating Facility capacity on the Line Section less than 100% of the minimum load for all line sections bounded by automatic sectionalizing devices upstream of the Generating Facility?” Note 2 of Screen N also requires that the technology type must be considered in determining minimum load, such that, for example, solar facilities require minimum load from 10 AM to 4 PM to be the relevant time period because this is when solar power is produced. This is known as “minimum coincident load.”

reduce demand.

If this is the case, preferred resources, including WDG, may fall into the same category that CAISO highlighted on page 2 of its opening comments: resources that eliminate the need for balancing supply and demand exactly because they reduce demand.

With regard to “flexibility,” we also appreciate CAISO’s acknowledgement that not all resources for meeting LCR need to be flexible (pp. 7-8), and this should impact the utilities’ and the Commission’s determinations with respect to flexibility in the LCR context:

Establishing minimum flexibility characteristics for all acquired resources is not necessary since not every resource in a portfolio must be flexible. Energy efficiency, for example, is not technically flexible yet still provides ratepayer value by permanently reducing load and displacing the need for generation resources. Moreover, there will still be a need for base load and peaking resources. Certainly a fair number of resources must be flexible and the overall fleet, in aggregate, must be capable of satisfying flexible capacity requirements, which the ISO has defined as the ability of the fleet to provide regulation, load following, and maximum continuous ramping. Thus, resource procurement should consider the range of operating needs and the right mix of resources that can fulfill these needs.

With respect to energy storage, we highlight the ability of energy storage to meet what CAISO describes as the key characteristic for dispatchability, PMin (p. 8):

There is one operating characteristic that should be considered when procuring all new dispatchable generation resources and that is PMin (minimum load). PMin is the minimum normal energy producing capability of a resource, i.e. the lowest operating level a resource can sustain and still be dispatchable. The ability to minimize PMin is highly beneficial for reliability and minimizing cost as the ISO anticipates periods of significant over-generation with increasing amounts of energy served by intermittent resources. Lower PMin will help minimize overgeneration and the potential for high negative prices where market participants (and ultimately consumers) pay to have excess energy consumed or exported. Minimizing minimum load as an operating characteristic is an important consideration in future procurement solicitations for dispatchable generation resources.

Energy storage has a zero or even negative PMin because energy storage can, by its nature, stop producing or absorbing power, or can absorb power from the grid on demand if it is not already fully charged. The California Energy Storage Alliance’s witness, Janice Lin, stated accurately in reply testimony in the Track I hearings (Reply Testimony of Janice Lin, p. 2):

Energy storage can certainly meet LCR and, like generation, is dispatchable. (In fact, storage is often more dispatchable in that unlike gas turbines which must be run at some minimum output level, most storage technologies have a minimum utilization of zero. As a result, it can be constantly synchronized to the grid, ready to provide fast-ramping flexibility in response to dispatch instructions, allowing lower cost alternative supply sources to be used.)

b. SCE

SCE states on p. 2 of its opening comments: “Workshop comments after the close of evidentiary hearings on Track 1 are an inappropriate place to entertain new proposals and litigate issues already addressed or otherwise disposed of during evidentiary hearings. In particular, SCE opposes implementation of any new proposals for set-asides for preferred resources or energy storage to meet LCR need.” However, the Commission held the preferred resources workshop specifically to consider ways in which preferred resources were not adequately considered in the Track I hearings.² For

² The Commission’s agenda for the Sept. 7 preferred resources workshop stated (pp. 1-2):

Because of the potential for a finding of need for new resources by the year 2022 in the current Long-Term Procurement Plan proceeding (R.12-03-014), Staff will coordinate efforts for consideration of Requests for Offers (RFOs) that may be used to procure additional resources to meet capacity and operating flexibility needs that may be authorized in the LTPP proceeding.

In particular, Staff is interested in exploring real or perceived barriers to RFO participation, particularly for non-conventional resources (such as, energy storage or demand response) or upgrades to existing generation resources. This examination may inform the understanding and oversight of RFOs issued to meet future needs. Through this process, Staff seeks comments or ideas for assigning economic and non-economic benefit valuations for a variety of “flexibility characteristics” that may not be explicitly considered or properly valued in the process to evaluate offers submitted in response to utility RFOs, such as:

- a. Flexible ramping capacity,

SCE to suggest that no new proposals may be entertained as a result of the workshop entirely moots the purpose of the workshop and additional planned workshops. We strongly urge the Commission to reject SCE's statement. Moreover, as we and many other parties have argued, the Commission must consider preferred resources prior to conventional resources in the LCR context. We urge the Commission to avoid litigation on this topic by reaffirming, with specifics, that it plans to follow the Loading Order in this LTPP cycle.

SCE makes a similar statement as CAISO in asserting that all LCR resources must meet certain requirements, failing to recognize that preferred resources that reduce demand directly go above and beyond the listed requirements specifically by reducing demand, and amplifying the impact of remaining conventional generation. SCE states (p. 3): "The LCR need in SCE's service territory requires a collective set of resources that can meet numerous operational requirements, including specified response periods, specific operation times, rapid and precise response times, preferred locations, and the provision of ancillary services, ramping, load following, voltage support, and inertia." SCE makes a similar statement on p. 7 of its comments in calling for certain criteria for "an open RFO with objective selection criteria." Again, preferred resources that reduce demand don't need to technically meet these requirements because they go above and beyond the requirements listed in reducing demand and thus eliminate the needed

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- b. Complementary applications,
 - c. Locational flexibility/mobility,
 - d. Faster time to site and install,
 - e. Multi-site aggregation,
 - f. Modularity (Incremental build of additional capacity),
 - g. Optionality,
 - h. Procurement flexibility, and
 - i. Other factors that should be considered.

Lack of proper valuation of such attributes could be a tangible barrier for some resources that should be studied further.

LCR, in some cases on a more than one-to-one correspondence due to reduction in line losses from LCR resources that are not located as close to load.

SCE states with respect to the Loading Order (p. 4): “SCE strongly disagrees with parties suggesting that SCE should modify its procurement processes to favor Preferred Loading Order resources without regard to the ability to meet need or cost-effectiveness.” SCE does not cite any party who recommends procuring preferred resources without regard to need or cost-effectiveness, so it would be helpful for SCE to cite this reference. Cost is an important issue that should be fleshed out in this proceeding. A number of parties have cited the Energy Commission’s 2010 report finding that peak power natural gas plants (simple cycle) cost up to 86 c/kWh. At this price level, every preferred resource becomes highly cost-effective, so it is important that parties flesh out the cost issues and that the Commission establish a means for determining the true avoided cost. The Commission has recently, in D.12-05-035, created a methodology for determining avoided cost, pursuant to PURPA rules, for wholesale renewables under 3 MW. The Council has proposed modifying this new mechanism for the LCR context, motivated in part by concerns about cost issues. Since the Commission has already found the Re-MAT to be PURPA-compliant with respect to cost and other issues, it is a natural fit for the LCR context and SCE’s justified concerns about cost. We urge SCE and other parties to weigh in on the appropriate avoided costs for LCR generation and mechanisms by which preferred resources may be judged to be cost-effective in comparison to conventional LCR generation.

SCE argues in favor of the Commission approving its preferred “flexible procurement” approach to meeting LCR (p. 3): “SCE’s flexible procurement approach anticipates that SCE would provide a showing through an application process for approval of the proposed resources, with the opportunity for evidentiary hearings. This flexible procurement approach will ensure that the Preferred Loading Order is fully considered.” However, this approach relies entirely on *ex post* findings of meeting the Loading Order, through an application process (*see* p. 7 for a diagram). In light of the

fact that the Commission has formally declared that the IOUs have not previously been in compliance with the Loading Order the Council strongly objects to any LCR procurement process in which SCE is provided full discretion to procure LCR resources with only *ex post* review. Rather, we urge the Commission to approve an LCR Re-MAT for preferred resources, and to have SCE conduct a 12-month LCR Re-MAT solicitation for 1,500 MW, before it approves procurement of any residual LCR need from conventional generation.

c. CEJA

The Council supports the following statements from CEJA's opening comments and we highlight these here because they are important in the debate about the ability of preferred resources to meet LCR:

- "Procurement has not been previously equated with flexible capacity", citing D.09-06-028 (establishing local capacity procurement obligations and not including any flexibility requirements).
- "Solar PV has been found to be approximately 96% available during the top peak hours in the LA Basin, citing CEJA Track I Ex. 1 (B. Powers Test.) at pp. 22-23.
- "[S]ynchronous condensers provide both voltage support and inertia to the system." Citing Track I Tr. 360:11-19 (Millar, CAISO).

d. TURN

We agree with TURN's statement that (Opening Comments, p. 1) "any resource that can receive a Net Qualifying Capacity (NQC) would qualify to satisfy LCR needs." We caveat this statement, however, with the previous discussion regarding what constitutes "demand reduction" and the ability of WDG to reduce demand, from CAISO's grid reliability perspective, in the same way that demand-side technologies can. In effect,

this means that any resource that does not reduce demand in the way described above could employ its NQC to determine, at least in part, its ability to meet LCR. We agree with CEERT's statement (Opening Comments, pp. 7-8) that NQC and LCR should not be equated. Nevertheless, it seems that there is indeed some potential utility in employing the NQC methodology in the LCR context.

On the same issue, TURN states (p. 2): "TURN does not believe that changes to NQC policy itself are feasible given the potential shortness of time until the possible issuance of an RFO pursuant to Track 1." However, SCE has stated its intent to not issue an RFO until 2015, leaving plenty of time, it would seem, to resolve NQC and related issues in the LCR context.

The Council is pleased to see that TURN recognizes that a traditional RFO process is not suitable for some preferred resources, including smaller renewables (p. 3): "TURN recognizes that some resources may not be able to compete effectively in such venues. For example, the sizes of some projects may not make competing in an RFO feasible. Smaller renewable energy projects may not participate due to the financial and time commitments required for participation in an extended solicitation process. In such cases, alternate and streamlined procurement mechanisms may be appropriate."

A key objective of the Council's LCR Re-MAT proposal, described in detail in opening comments, is to allow smaller renewables and other preferred resources a chance to compete for meeting LCR.

e. PG&E

PG&E makes a number of statements similar to CAISO's in terms of an overly narrow focus on traditional criteria for resources required to meet LCR (p. 3): "In a solicitation to satisfy the local reliability need determined in Track 1, physical location and ability to respond to system contingencies and operate during critical hours or conditions are key

attributes of offered resources.” However, as discussed above in response to CAISO’s comments, preferred resources that reduce demand should be prioritized above resources that “respond to system contingences and operate during critical hours...” because they have a more versatile and important impact on the grid through their ability to reduce demand either behind the meter or on the distribution grid.

The Council supports PG&E’s statement regarding demand response and resource adequacy (p. 9): “The Commission’s resource adequacy rules currently allow demand response resources to meet local capacity requirements, in addition to system resource adequacy requirements. This is appropriate and should continue to be the case.”

f. CEERT

We fully support CEERT’s assertion (Opening Comments, pp. 3-4) that the Commission must affirm that the Loading Order fully applies in the LCR context. The Council, CEERT and many other parties have raised this issue and we again request that the Commission weigh in soon, with a ruling, that it fully intends to enforce the Loading Order in this proceeding, and how it intends to do so.

October 23, 2012

Respectfully submitted,

By: The Community Environmental Council

A handwritten signature in black ink, appearing to be the initials 'TWC' followed by a long horizontal stroke.

Tam Hunt, Attorney