



California Public Utilities Commission Energy Division

Clean Coalition and DECA Comments on Resource Adequacy Staff Proposal

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The Clean Coalition is a California-based nonprofit organization whose mission is to accelerate the transition to local energy systems through innovative policies and programs that deliver cost-effective renewable energy, strengthen local economies, foster environmental sustainability, and provide energy resilience. To achieve this mission, the Clean Coalition promotes proven best practices, including the expansion of Wholesale Distributed Generation (WDG) by renewable energy facilities connected to the distribution grid and serving local load. The Clean Coalition drives policy innovation to remove barriers to the procurement and interconnection of WDG projects, integrated with Intelligent Grid (IG) solutions such as demand response, energy storage, and advanced inverters. The Clean Coalition is active in numerous proceedings before the California Public Utilities Commission, the California Energy Commission, and other state and federal agencies throughout the United States. The Clean Coalition also designs and implements WDG and IG programs for utilities and state and local governments.

Distributed Energy Consumer Advocates (“DECA”) is a technology-neutral California public benefit organization that advocates on behalf of residential electricity customers who seek to more directly control their investments in energy infrastructure. DECA’s California members live and invest throughout the state, including in the service territories of California’s largest investor-owned and municipal utilities. DECA advocates on behalf of its members before the CPUC, CEC, and CAISO on a range of market design and policy implementation issues.

I. Discussion

a. Probabilistic vs. deterministic methodology

The Clean Coalition and DECA (CC/DECA) recommend developing the proposed probabilistic methodology in parallel with, rather than in place of, the traditional deterministic methodology. We find the new approach has many advantages over the traditional approach, but we are also cautious about its impact on the renewables market due to an over-emphasis on flexible capacity and the potential for under-estimating the ability of preferred resources to provide flexible capacity. There are real world risks that the Commission may harm the development of preferred resources by implementing a probabilistic methodology without first studying the effects of what we fear is a programmatic bias that undervalues the ability of preferred resources to mitigate forecasted ramp needs. Proceeding with parallel development at this stage will allow the results of the two approaches to be compared to help determine the impact of modeling changes and new assumptions as wholesale markets develop and the resource mix changes significantly over the next few years.

b. The Commission should work with CAISO to develop a local deliverability status process

We urge the Commission to also work with CAISO in creating a local deliverability study process for areas with local capacity requirements. As is, local capacity RFOs are requiring full deliverability even though the energy is needed in a specific area rather than elsewhere on the grid. The current requirements allow bottlenecks outside of the local capacity area to prevent affordable deliverability status from being achieved for projects seeking to bid

into local capacity RFOs. Similarly, a resource's ability to be deliverable on peak may not reflect its ability to mitigate ramps off peak. A failure to capture a resource's deliverability off peak in their flexible capacity rating runs the risk of biasing the market away from preferred resources that can mitigate ramping but have entered the market as energy only resources. While the Commission has focused on Qualifying Capacity, the netting of this Qualifying Capacity to account for deliverability when that capacity is needed will likely play a critical role in assessing the value of capacity contributed by renewable resources.

Currently, to qualify for Resource Adequacy benefits, a project must achieve full capacity deliverability status (FCDS). This means that the power can be sent anywhere on the grid that it is needed due to the absence of grid bottlenecks. Currently, generation or storage projects designed to meet local capacity requirements must achieve FCDS. However, there is no need for a local RA project to have system-wide deliverability. Rather, only local deliverability is needed to meet the required purpose. We recommend, accordingly, that the Commission work with CAISO to create a local deliverability analysis procedure that applies to projects seeking to meet local capacity requirements, as opposed to system-wide capacity requirements.

As an example of the need for this change: SCE has issued its Local Capacity Requirements RFO for the LA Basin and Moorpark areas. Projects seeking FCDS in the Goleta sub-area of the Moorpark area cannot qualify for assignable deliverability (DGD) under CAISO's new process because there is a bottleneck at the Lugo-Victorville area that the Goleta transmission substation feeds into. However, the Lugo-Victorville area has no relation to local capacity requirements in the Moorpark area. Problems like this would be resolved if the Commission and CAISO created a local deliverability status process.

Commission staff indicated that deliverability issues are out of scope at this point in this proceeding. However, we urge the Commission to at least initiate discussions with CAISO on this important issue due to the increased importance of local reliability capacity in recent years.

c. "Ramp mitigation" should be used instead of "flexibility"

We also recommend that the Commission use the term "ramp mitigation" rather than "flexibility." This is the case because "flexible capacity," as it appears to be likely to be implemented, does not reflect the underlying probabilistic valuation being considered for other capacity because of the bundled must offer obligation (MOO) obligation and the limitations on the aggregation of sub-three hour ramps. While there appears to be willingness by staff to re-consider this issue, the proposal, if implemented in its current state, would fail to accomplish this goal and may prove significantly harmful to non-combustion resources.

d. How should historical performance data be used for QC and EFC?

The staff proposal requests party comments on the extent to which historical performance data should be required for calculating QC and EFC. CC/DECA feel that where historical data is available, data for the previous three years should be required. However, where such data is not available (for new projects, for example), QC and EFC should be calculated based on an average of the three-year historical data for facilities using the same technology, with the projected capacity factor of the new project also accounted for. With respect to DR, however, we recommend that the Commission explore statistical analyses of similar programs in other regions where there is no similar CA program, e.g. use PJM DR programs to determine QC and EFC for new ISO DR products. For new

technologies or programs performance estimates are adequate because the actual risk from over- or under-forecasting QC, where such forecasting is done without a three-year track record, is minimal because any new technologies will comprise a very small part of grid capacity.

e. “Perfect generator” should be replaced with “perfect resource”

We feel that the “perfect generator” proxy used in the staff proposal should be revised to include negative generation/charging, in order to take into account the likely growth of energy storage facilities on the California grid in the coming years. Our preferred approach would use a “perfect resource” rather than a “perfect generator” and the perfect resource would be capable of full discharge and full charge, encompassing all of the ideal benefits of a generation resource as well as a storage resource. This will allow for a more seamless incorporation of energy storage, demand response and electric vehicle policy planning as deployment of these technologies ramps up in the coming years and correctly reflects the fact that generation only resources do not have the flexibility of load or storage resources to mitigate system need.

f. Other issues

The staff proposal calls for parties to comment on calculating QC for aggregated resources. We feel that summing the Pmax and Pmin values is the simpler and more straightforward approach, with no real downside. There may, however, be an opportunity for resources that do not individually meet performance requirements to qualify when aggregated. As such, simply summing the Pmax and Pmin may not reflect (may overstate) the actual performance values. This



would include resources that are individually limited in terms of availability, reliability, or inconsistent capacity, but do not exhibit these constraints when aggregated. In such cases, these aggregated resources also do not aggregate to the sum of their individual Pmax and Pmin. We recommend that any solution the Commission decides upon recognize these kinds of scenarios.

EFC will generally exceed QC for energy storage facilities, so we feel that staff should account for this in the revised proposal. The proposal suggests that a Commission decision may be necessary to deal with this and we agree, but we also suggest that the staff proposal be revised to reflect the fact that this will likely be a common occurrence for ES.

We also highlight the ability of DR to act as a ramping resource and the ability of energy storage to act as both a ramping resource and also a very fast-acting grid-responsive resource more generally.

Sincerely,

_____/s/_____

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_____/s/_____

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