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California Efficiency + Demand Management Council Oral Statement on Energy Storage and Distributed Energy Resources Phase 4 – October 1, 2020

Good morning. My name is Jennifer Chamberlin and I am a member of the Board of Directors for the California Efficiency + Demand Management Council and co-chair of the Council's Regulatory Policy Committee. The Council, established in 2009, is a statewide trade association of non-utility companies that provide energy efficiency, demand response, and data analytics products and services throughout California. Our members include implementation and evaluation firms, engineering and architecture firms, data analytics firms, contractors, financing experts, energy service companies, workforce trainers, and product manufacturers/distributors. Our members include over 65 companies and organizations, who employ a large portion of California's 320,000+ efficiency and demand management workforce. We advocate at the CPUC, CEC, and CAISO, as well as with state legislators and the Governor's office to ensure the optimal delivery and achievement of efficiency and demand management resources that are vital to the State for achieving its ambitious carbon reduction goals.

Thank you for the opportunity to address the CAISO Board of Governors today on the CAISO's Energy Storage and Distributed Energy Resources Phase 4 (ESDER 4) proposal. I would like to focus this statement on a few demand response-related components of the ESDER 4 proposal.

The Council supports and appreciates the CAISO's efforts to address a key barrier to DR resource participation in its market by proposing to create a new optional parameter in its Master File to reflect DR resource run-time limitations. The capabilities of DR participants are varied and this is reflected in the diversity of the operating characteristics of DR resources. The Council hopes that the assurance of a DR resource being dispatched according to its unique dispatch characteristics, while meeting applicable Resource Adequacy requirements, will attract more DR capacity to the California market during a time when it is urgently needed. However, the Council is concerned that the minimum 1 MW curtailment size requirement for DR resources to utilize this new parameter will undermine any progress in attracting new DR that would otherwise be made. We understand that the CAISO has concerns about the large number of small DR resources and their impact on the CAISO's systems, but there are several legitimate business-related reasons for DR providers to use smaller resources. I would like to briefly explain some of them.

First, sometimes a DR provider will simply not have enough customers within a subLAP to provide more than one MW of curtailment. This is especially an issue for small DR providers and DR providers that recruit residential customers – particularly given the small size of DR procurements from third parties. Second, grouping all locations of a single customer into a resource makes energy market settlement between a DR provider and its clients much easier, whereas multiple customers' locations in a single resource is more complicated. A good example of this type of customer is a grocery store chain

with multiple stores. Third, DR providers will often group customers by common operational factors such as desired frequency of dispatch, opportunity cost, dispatch duration, and response time. This allows a DR provider to bid and dispatch all of the customers within a resource in the same way. For a DR provider with a wide range of customer load profiles, this can sometimes result in several resources within a given subLAP.

The Council and its members are also very concerned about the CAISO's plan to utilize an effective load carrying capability (ELCC) methodology to determine the capacity value of DR resources. We recognize that this issue will not be voted on today but because it is being addressed during this discussion, we want to highlight what we feel are the serious deficiencies and shortcomings in using this approach in general and the E3 approach in particular. These shortcomings include:

1. The CAISO has not demonstrated that using ELCC will yield a more accurate capacity value than what is currently used for IOU DR programs and DRAM resources. There seems to be blind faith within the CAISO that the ELCC is the optimal approach despite no clear methodology being developed. It would seem reasonable to perform a comparison between the current and proposed capacity valuation methods under different scenarios to determine strengths and weaknesses.
2. Though the Market Surveillance Committee agreed in its September 8 Opinion that the ELCC is a "useful and valid theoretical framework", during discussion at the MSC meeting the MSC stated that using ELCC for demand response is very difficult because there are so many factors to correlate. The MSC also stated that the E3 study was a step in the right direction but there are areas for improvement. The Council does not see this as a strong endorsement by the MSC for the ELCC nor for the E3 analysis.
3. The scope of the E3 analysis was limited in that it only assessed IOU DR programs and did not consider third-party DR procured through the Demand Response Auction Mechanism, Resource Adequacy contracts with non-IOU LSEs, IOU energy storage procurement contracts, or Local Capacity Requirements RFOs. This narrow focus is highly problematic because, as I explained, DR resources are highly diverse due to the diversity of the underlying customers and their enabling technologies. Developing an ELCC analysis for all DR resources based on a sub-set of them is sure to yield inaccurate results.
4. The E3 study contemplates a single or perhaps a few representative ELCC factors for all DR resources which will undervalue the most effective DR resources because it will reflect the average value of all resources. Conversely, the least effective resources will be over-valued.
5. The CAISO has not indicated how frequently it would update its ELCC study. Because any updated factors will always lag the actual aggregate performance of DR resources, improvements in DR performance may not be reflected in the ELCC analyses for many years. Therefore, this is an important factor that will directly impact the accuracy of an ELCC factor.
6. The ELCC methodology contemplated in the E3 study lacks transparency which is contrary to a well-functioning market. In all other organized wholesale capacity markets in the United States, there is a relatively clear process for DR providers to receive the capacity value of their DR resources. This transparency is essential because it allows DR providers to make well-informed decisions on allocating their resources.

In closing, I would like to highlight the importance of a robust State DR portfolio. During the August and September heat events, preliminary results from the Council's DR provider members

indicate that customers generally performed very well during consecutive day events. This DR likely avoided more widespread blackouts in August and helped to avoid blackouts altogether in September. DR has proven that it is needed and it is effective, and we hope the Board will recognize this when it considers the Council's comments on the ESDER 4 proposal. The Council respectfully urges the Board of Governors to direct CAISO staff to remove the one MW minimum resource size as a prerequisite for utilizing the maximum run time parameter, and to address the shortcomings I have described of using an ELCC methodology for DR capacity valuation.

Thank you again for this opportunity to address the Board of Governors.