

The Center for Energy Efficiency and Renewable Technologies (CEERT) appreciates the opportunity to comment on the California Independent System Operator (CAISO) 2019 Local Capacity Area Technical Study Draft. As we begin a long transition away from relying almost exclusively upon natural gas for Local Capacity Requirement (LCR) procurement, there is a need to provide more information in the LCR Study process to allow for efficient procurement of use limited resources especially preferred resources such as hybrid storage/demand response and local solar. CEERT does not believe there must be significant change to the study process itself, but simply providing one number – the 1-in-10 peak load for the defined LCR area is no longer sufficient to guide procurement.

First, where the study process demonstrates that voltage collapse is the consequence of the limiting transmission contingency, the MVAR of reactive power required to provide sufficient reactive margin following the contingency needs to be disclosed. In addition, the underlying thermal import limit that would now determine the LCR requirement must be provided. Because the reliability protocols are somewhat less restrictive once the threat of a cascading outage following voltage collapse is mitigated (N-1-1 load shedding is allowed), and post contingency redispatch of quick start reserves is now possible, this information provides the ability to judge the advantage of mitigating voltage collapse prior to adding local generation.

Second, because use limited resources will become a more significant source of LCR mitigation, the procurement metric needs to shift to consider the on peak energy requirement as well as the absolute peak capacity need. The procurement requirement is now the quantity of on peak energy defined as the area under the curve formed by the 1 in 10 peak load shape and the transmission import limit. Because this on peak energy will be met with a portfolio of resources that depend on combinations of technologies to provide LCR mitigation, the net qualifying capacity of the individual resource is no longer sufficient to define value in mitigating the LCR need. For example, because storage in combination with demand response and/or solar PV will be widely available, the procurement needs to consider how that storage can be recharged during relatively high load hours rather than simply adding to the duration of battery storage.

Third, at this point, it is not clear whether the California Energy Commission (CEC) load forecast used in this year's study will continue to rely on scaling of historic load shapes and thus require use of an exogenous "peak shift factor" to account for the impact of incremental behind the meter solar. The CEC is transitioning its forecasting methodology to explicitly deal with this issue in its base case forecast, but it may not complete this transition in time to be used in this year's study process. If the CAISO continues recent practice of adding a "peak shift factor" to the CEC forecast, that factor must be added to the hour that the peak load is being shifted into, not the historic peak hour. In addition, the on peak energy produced by the incremental solar that causes the peak shift must be subtracted from the on peak energy requirement that is reported.