CAISO EFC Process Clarification Comments

Submitted by	Company	Date Submitted
Sandeep Arora (<u>sarora@lspower.com</u>) (925) 201 5252	LS Power Development, LLC	5/29/19

LS Power appreciates the opportunity to provide comments on EFC process clarification. Our comments are limited to the proposal to calculate EFC for Battery Storage Projects.

EFC Calculation for Battery Storage Projects

CAISO proposes a change in formula to calculate EFC for Battery Storage projects. Further, CAISO proposes to use a different formula for Battery Storage projects that operate under NGR or REM model. LS Power two comments on this and is requesting further clarification before new proposed rules are implemented.

- (1) For Non REM resources, CAISO is proposing to factor in efficiency losses and discounting EFC for these projects based on these losses. While it is true that these projects will incur losses but the flexibility value that these resources do provide as these go from full charge to full discharge is based on the full MW output for these resources. This should align with EFC for the resource and losses should not be discounted.
- (2) It is not clear why Battery Storage Projects that operate under REM should have their EFC capped to NQC. These resources provide similar flexible value to CAISO and are basically available at CAISO's disposal for full dispatch between its entire range from full charge to full discharge. We don't believe that EFC for these resources should be capped to NQC. Moreover if a resource operates as REM for portion of the year and Non REM for the rest, having two different EFC values will be confusing with respect to Resource Adequacy procurement process. Unless there are technical reasons, we propose REM and Non REM resources should have same EFC calculations.
- (3) Per CAISO tariff Sections 40.10.3.2, 40.10.3.3, 40.10.3.4; it appears the REM resources can only qualify under Super Peak category. We would like CAISO to provide a response as to why that is the case and if there are any technical reasons for this limitation.

We appreciate CAISO considering these comments.