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BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Oversee the Resource Adequacy Program, Consider Program Refinements, and Establish Annual Local and Flexible Procurement Obligations for the 2019 and 2020 Compliance Years.	Rulemaking 17-09-020 (Filed September 28, 2017)

COMMENTS OF LS POWER DEVELOPMENT, LLC TO THE RULING OF ADMINISTRATIVE LAW JUDGE RULING ON EFFECTIVE LOAD CARRYING CAPACITY SEEKING COMMENTS AND PROPOSALS TO BE INCORPORATED IN TRACK 3 COMMENTS

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In accordance with the Rules of Practice and Procedure of the California Public Utilities Commission ("Commission"), LS Power hereby submits these comments on *Ruling of Administrative Law Judge Seeking Comments on the Energy Division Proposal re Effective Load Carrying Capacity to be incorporated into the Track 3 comments* ("Ruling"), issued by Administrative Law Judge Peter V. Allen on February 13, 2019.

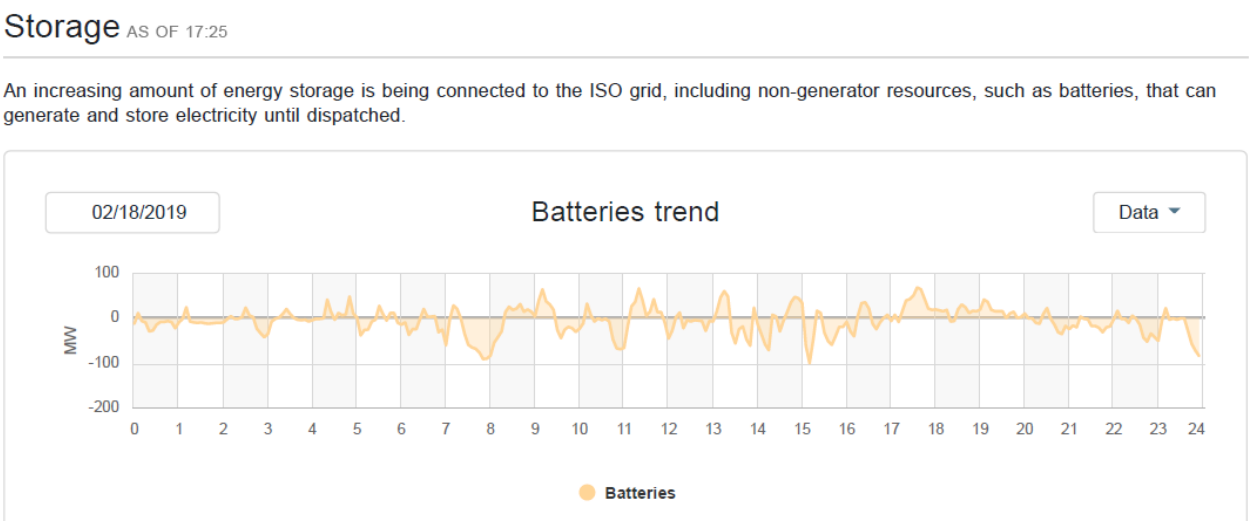
I. SUMMARY.

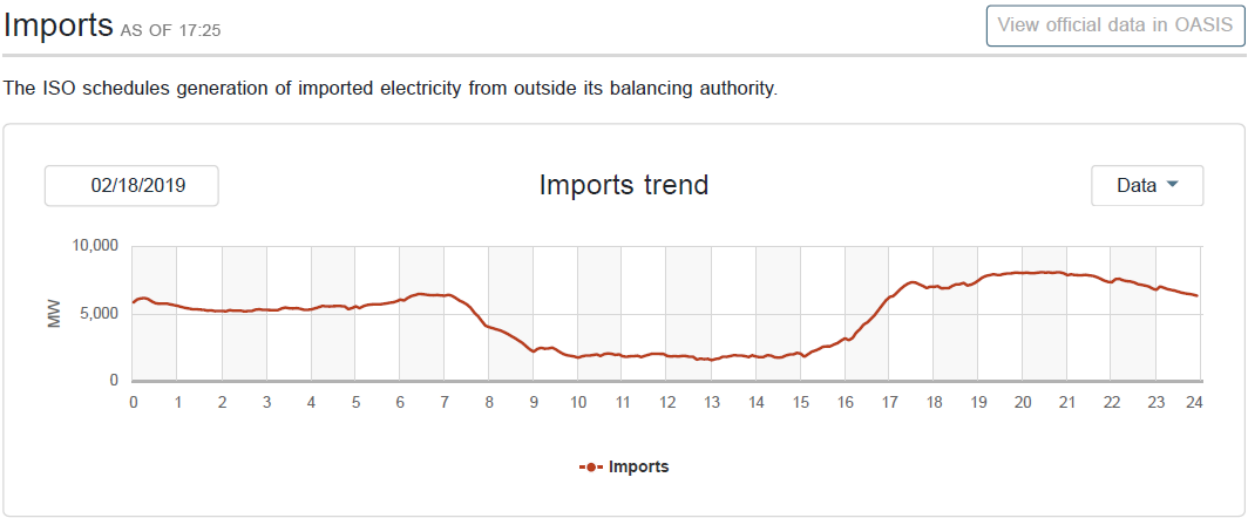
LS Power appreciates the opportunity to provide comments on the Energy Division Proposal re Effective Load Carrying Capacity. LS Power recognizes the work done by CPUC Staff ("Staff") in modeling and calculating Effective Load Carrying Capacity (ELCC) percentages for four resource groups/portfolio ELCCs. Our comments mainly focus on the proposed allocation of diversity benefits from standalone Energy Storage to other resources e.g., solar or wind, that have not directly invested in onsite behind the meter energy storage.

While LS Power recognizes the diversity benefits achievable by incorporating multiple resource technologies into a portfolio, we question the logic of transferring benefits from one

resource type which has invested capital to achieve a market benefit to another resource type that has not.

LS Power believes that the staff observed ELCCs greater than 100% are attributable to the fact that standalone energy storage is in effect providing two products; dispatchable demand [equivalent to proxy demand response from BTM storage] or "beneficial load" which absorbs excess generation when charging; and Resource Adequacy capacity from the generation portion of Energy Storage that can support evening ramp needs. It is a drastic oversimplification to assert that because storage often charges during the middle of the day, absorbing solar energy, that any portfolio benefit from this activity should be attributed to solar. In fact, LS Power has observed that CAISO optimization of energy storage is just as likely to discharge storage in the same hour as peak solar generation is used to charge storage. Reference the CAISO Today website - Storage Batteries trend data: http://www.caiso.com/TodaysOutlook/Pages/supply.aspx on a particularly cold sunny day like February 18 & 19, 2019. It is more likely in fact that excess in state solar generation is displacing imports and thereby decreasing diversity benefits to the portfolio. Reference the CAISO Today website - Imports trend data for the same reference dates.





CAISO's 2020 & 2024 Draft LCR Study Results of March 14, 2019 note that one of the major factors increasing local capacity needs in some local capacity areas is that as peak demand shifts later in the day (from 5 PM in last year's study to 8 PM in this study), expected solar generation is 0 MW[1]. Transferring additional Effective Load Carrying Capacity to a resource class that is becoming increasingly less effective at serving peak load is hard to rationalize.

Within CAISO's Resource Adequacy Enhancements Straw Proposal – Part 2[2], the "CAISO offers that RA targets should remain clear, easily understood and based on stable criteria applied uniformly across all LSEs. For example, to date, the CAISO has relied on a planning reserve margin based on adding up RA resources' NQC values. Most LRAs set a planning reserve margin that is met by adding up their RA resources' NQC values to ensure the cumulative NQC value is

[1] 2020 & 2024 Draft LCR Study Results for LA Basin and San Diego-Imperial Valley Areas, page 19, March 14, 2019.

[2] Resource Adequacy Enhancements Straw Proposal – Part 2, page 16, ISO/M&IP/Meeusen/Devon/Carr/Murtaugh, February 27, 2019

greater than or equal to 15 percent above forecasted peak demand."

CPUC staff recognized that energy storage can potentially have a greater than 100% ELCC and has recommended transferring the ELCC value greater than 100% to Solar via a diversity adjustment. In the CPUC ELCC proposal, it is contemplating NOT assigning an ELCC factor to energy storage, but instead assigning a 100% RA value to battery storage.

LS Power suggests that if ELCC calculation exceeds 100%, for instance for Energy Storage resources, then this amount over 100% should be assigned towards Effective Flexible Capacity (EFC) value for these resources. This over 100% ELCC amount truly reflects the flexibility these resources provide and hence this value should be retained with the resource. This would also allow for any portfolio (diversity) benefit achieved by storage to remain with the storage resource that can effectively be dispatched while not assigning a higher than 100% NQC. Since the Solar resource will not be able to provide "effective" capacity when needed to serve load, and the storage project will, this solves multiple issues without impacting the existing definition of NQC and its associated implications to contracting language and settlement. It helps ensure that RA targets remain clear, easily understood and are based on stable criteria applied uniformly to both new and existing contracts and resources.

II. CONCLUSION.

LS Power recommends that rather than allocating excess diversity benefits from standalone storage to solar, the Commission should: (a) Allow Energy Storage projects to retain ELCC over 100%. Anything over 100% should be added to the Effective Flexible Capacity of this resource so the resource gets rewarded for offering flexibility that the grid needs (b) ELCC of up to 100% for Energy Storage projects should be used towards their NQC. Implementing these recommendations

should encourage investment in flexibility, whether it is for existing solar projects or other technology generators. Further we recommend that Staff continue to work with CAISO such that market enhancements are implemented such that flexible capacity products and dispatchable demand/"beneficial load" are valued in CAISO markets.

LS Power appreciates the opportunity to submit these comments to the Ruling and we look forward to working with the Commission and Staff in this proceeding.

Respectfully submitted,

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