

April 4, 2022

CPUC Energy Division Tariff Unit
505 Van Ness Avenue
San Francisco, California 94102
EDTariffUnit@cpuc.ca.gov

Re: Protest of the California Energy Storage Alliance to Advice Letter 6528-E of Pacific Gas and Electric Company

Dear Sir or Madam:

Pursuant to the provisions of General Order 96-B, the California Energy Storage Alliance (“CESA”) hereby submits this Response to the above-referenced Advice Letter 6528-E, *Modifications to PG&E’s Renewable Market Adjusting Tariff (“ReMAT”) Program Pursuant to D.21-12-032* (“Advice Letter”), submitted by Pacific Gas and Electric Company (“PG&E”) on March 15, 2022 pursuant to Decision (“D.”) 21-12-032.

I. INTRODUCTION & BACKGROUND.

The Commission issued D.21-12-032 on December 17, 2021 that addressed and adopted a number of modifications to the Renewable Market Adjusting Tariff (“ReMAT”) of each of the investor-owned utilities (“IOUs”) and directed the re-opening of the program for San Diego Gas and Electric Company (“SDG&E”). Among the many changes, the Commission established capacity re-allocation rules across the product categories upon meeting a de minimis threshold¹ and requested proposals regarding the various terms and conditions in the tariff and contract to enable the participation of a facility with hybrid and/or co-located storage.² Other than specifying the definition of “effective capacity” when projects include energy storage and how energy storage systems in these cases must charge only from the eligible renewable resource and seek Commission approval demonstrating accordingly, much of the implementation details were left to the IOUs to propose in Tier 2 advice letters.

Upon review of the Advice Letter, CESA finds the proposed modifications to the ReMAT Tariff and Power Purchase Agreement (“PPA”) to be largely compliant, particularly around the provisions for energy storage charging restrictions, which only require that a “method” be specified in the Program Participation Request (“PPR”) rather than specifying the method in either the tariff

¹ D.21-12-032 at Ordering Paragraph (“OP”) 3-4.

² *Ibid* at OP 7-8.

or PPA.³ In addition, CESA finds the proposed eligibility criteria for renewable generation facilities enhanced by energy storage to be consistent with D.21-12-032 in terms of demonstrating the ability to deliver energy in the appropriate hours to qualify for either the As-Available Peaking (“AAP”) and As-Available Non-Peaking (“AANP”) product categories, respectively.⁴

However, CESA protests the Advice Letter based on the proposed definition and eligibility criteria of “baseload facility,” which we find to be excessive and inconsistent with typical dispatchable baseload generation facilities. Rather, we propose that the definition be modified in the Tariff and PPA as follows:

“Baseload Facility” means a generating facility for which Energy delivery ~~levels are and remain uniform~~ **is available and dispatchable** twenty-four (24) hours per day, 7 days per week and that has a Capacity Factor that is greater than or equal to ~~ninety sixty~~ **percent (90 60%)**.

Furthermore, CESA recommends that the Tariff and PPA be modified to allow multiple energy storage technologies to serve as the enhancement to the eligible renewable resource, subject to the same conditions and limits as outlined in the Advice Letter for any energy storage enhancement.

II. DISCUSSION.

A. **The proposed definition and eligibility criteria of “baseload facility” is excessive and is inconsistent with typical dispatchable baseload generation facilities.**

In the Advice Letter, PG&E modifies the definition of “baseload facility” from a generating facility that does not qualify as an As-Available Facility to one with a high bar for qualification. Specifically, PG&E proposes that a “baseload facility” be a generating facility for which energy delivery levels are and remain uniform 24 hours per day, 7 days per week and that has a capacity factor that is greater than or equal to 90%.⁵ Capacity factor is also defined as the percentage amount resulting from the delivered energy in any given contract year divided by the product resulting from multiplying the contract capacity times the number of hours in that contract year.⁶

While no specific guidance was provided in D.21-12-032, CESA finds the proposed definition and eligibility criteria of qualifying baseload facilities to be excessive and inconsistent with typical dispatchable baseload generation facilities.

³ PG&E Advice Letter Attachment 2 Electric Schedule E-REMAT at Sheets 3, 8, and 10.

⁴ *Ibid* at Sheet 11.

⁵ PG&E Advice Letter Attachment 2 Renewable Market Adjusting Tariff Power Purchase Agreement at Page 55 of 108.

⁶ *Ibid* at Page 56 of 108.

According to the Energy Information Administration (“EIA”),⁷ for example, geothermal facilities have capacity factors that range between 59% and 75.5% in 2020-2021. Similarly, wood or other biomass facilities have capacity factors that range between 53.7% and 65.1% in 2020-2021. The only renewable technology that consistently exceeds 90% capacity factor is nuclear, which would likely will not participate in the ReMAT Program and is not consistent with the Commission’s direction in the state in moving away from nuclear. To further underscore, the Commission’s Mid-Term Reliability (“MTR”) procurement order for firm generation resources that are not weather-dependent or use-limited established a minimum capacity factor of at least 80%.⁸ All of this data and evidence point to a 90% capacity factor as being unreasonably high and exclusionary to the vast majority of typical baseload generating facilities.

In addition, CESA finds issue with the definition that energy delivery levels must be and remain uniform on a 24x7 basis, which again likely limits the scope of eligible renewable generation facilities to nuclear generation facilities, which are the only resource types that typically maintain such uniform production. However, with the grid requiring greater firm but flexible resources, it is not clear why uniform energy deliveries should be a requirement to qualify under the Baseload product category. Especially with these resources likely participating in the California Independent System Operator (“CAISO”) market as either Participating Generators and/or Non-Generator Resources (“NGRs”), the actual energy deliveries should be a function of market bids and schedules rather than an arbitrary and rigid uniform energy delivery requirement, irrespective of grid or market conditions. Instead, the intent of the Baseload product category should be to support resources that are available and dispatchable on a 24x7 basis, not “as-available” as in the case of the two other product categories. In fact, the previous definition and eligibility criteria for the Baseload product category to essentially be “does not qualify as an As-Available Facility” suggests that a new definition that stipulates available and dispatchable on a 24x7 basis should capture the intent of this product category while being inclusive of renewable generation facilities enhanced with energy storage facilities.

Considering the two above points, we propose that the definition be modified in the Tariff and PPA as follows:

“Baseload Facility” means a generating facility for which Energy delivery ~~levels are and remain uniform~~ **is available and dispatchable** twenty-four (24) hours per day, 7 days per week and that has a Capacity Factor that is greater than or equal to ~~ninety six~~ **percent (90 60%)**.

⁷ See Table 6.07.B. Capacity Factors for Utility Scale Generators Primarily Using Non-Fossil Fuels from EIA Electric Power Monthly. https://www.eia.gov/electricity/monthly/epm_table_grapher.php?t=epmt_6_07_b

⁸ D.21-06-035 at Finding of Fact (“FOF”) 15, Conclusion of Law (“COL”) 9, and OP 2.

Finally, CESA recommends that the Tariff and PPA be modified to allow multiple energy storage technologies to serve as the enhancement to the eligible renewable resource, subject to the same conditions and limits around effective capacity (interconnection limit to not exceed 3 MW), nameplate capacity (no individual facility to exceed 3 MW), and grid charging (only from the paired renewable resource). Supporting documentation would still be required in these situations to verify no grid charging, such that the allowance of multi-storage enhancements should not present issues regarding eligibility. CESA proposes these modifications because renewable resources such as solar or wind that are enhanced with energy storage will likely require a combination of long-duration energy storage (“LDES”) and lithium-ion battery storage to be able to deliver on the high capacity factor requirement, with the former providing seasonal baseload discharge in non-shoulder months⁹ and the latter providing daily energy arbitrage.

III. CONCLUSION.

CESA appreciates the opportunity to submit this protest to the Advice Letter and looks forward to collaborating with the Commission and PG&E on the implementation of the modifications to the ReMAT Program.

Respectfully submitted,



Jin Noh
Policy Director
California Energy Storage Alliance

Sergio Dueñas
Policy Manager
California Energy Storage Alliance

⁹ An additional point in support of a lower capacity factor requirement is that one potential use case of energy storage enhancements to qualify for the Baseload product category includes LDES paired with a solar facility, allowing the LDES resource to charge during solar overgeneration months and providing seasonal discharge in other months.

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cc: Sidney Bob Dietz II, c/o Megan Lawson, PG&E (PGETariffs@pge.com)
Service lists R.11-05-005, R.15-02-020, and R.18-07-003

