

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Application of Pacific Gas And Electric
Company (U39E) for Review of the
Disadvantaged Communities – Green Tariff,
Community Solar Green Tariff and Green
Tariff Shared Renewables Programs.

And Related Matters

Application 22-05-022
(Filed December 2, 2022)

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**CLEAN COALITION REPLY COMMENTS ON ADMINISTRATIVE LAW JUDGE’S
RULING SETTING ASIDE SUBMISSION OF THE RECORD TO SEEK COMMENTS
ON COST-EFFECTIVENESS CONSIDERATIONS**

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I. INTRODUCTION

Pursuant to Rule 6.2 of the Rules of Practice and Procedure of the California Public Utilities Commission (“Commission”) the Clean Coalition respectfully submits these reply comments in response to the *Administrative Law Judge’s* (“ALJ’s”) *Ruling Setting Aside Submission of the Record to Seek Comments on Cost-Effectiveness Considerations*, issued at the Commission on June 23, 2023. The Clean Coalition has consistently commented on the need for a program that properly compensates solar+storage, including the additional benefits from infill projects (truly local solar).¹ The existing programs are less than ideal in terms of both ineffective pricing and stringent eligibility criteria; allowing deployments of paired storage and making a few changes to the basic program requirements is not enough to make them viable or compliant with AB 2316. Therefore, it makes the most sense for the Commission to adopt a modified version of the Coalition for Community Solar Access’ (“CCSA’s”) Net Value Billing Tariff (“NVBT”). As proposed, the NVBT does not effectively incentivize, or enable the deployment of, infill projects; remote ground mount projects are treated as providing equal to infill projects. Without properly valuing the benefits created by infill projects² or requiring projects to be developed within a close proximity to the subscribers, the cheapest option—remote ground mount solar+storage—will be the main type of project developed, which reduces the benefits

¹ We define “truly local solar” as located within the same distribution substation area as the subscribers to ensure that an avoided transmission value is created, and that the local community is receiving the benefits of renewable energy projects deployed there.

² Infill projects include developments on built environments (rooftops, parking lots, and parking structures).

realized by both participating and non-participating ratepayers and creates unintended land use competition. In addition, projects within the built environment are disincentivized and undercompensated for the value they produce. The Clean Coalition advocates that to create the most successful Community Solar programs, the Commission must incorporate the additional value created by infill projects and economies of scale (for storage) by:

- Acknowledging that infill solar creates greater value than remote ground mount projects and has greater siting potential.
- Allowing virtual pairings of (unbundled) storage to increase the size of the deployment, increasing benefits for the ratepayers and the subscribers.
- Compensating the avoided transmission value of truly local solar projects by avoiding Transmission Access Charges (“TAC”) and the Power Charge Indifference Adjustment (“PCIA”).
- Implementing auto-enrollment along with a requirement that the subscribers must be located within the same distribution substation area as the project in order for the project to receive a higher level of compensation, ensuring that projects are properly compensated for the value created.
- Noting that the NVBT has far better cost-effectiveness test results than other proposals. Including extra compensation for the value provided by infill projects will not significantly reduce the cost-effectiveness scores and should improve them.
- Continuing to use the Avoided Cost Calculator (“ACC”) to value exports for Community Solar projects, since the LCBF framework is inappropriate.
- Ignoring party comments suggesting that the Commission should not adopt the NVBT because it will create a cost shift. A modified NVBT is far more cost-effective than any modified version of the existing programs.
- Including a brownfield adder.

II. DESCRIPTION OF PARTY

The Clean Coalition is a nonprofit organization whose mission is to accelerate the transition to renewable energy and a modern grid through technical, policy, and project development expertise. The Clean Coalition drives policy innovation to remove barriers to procurement and interconnection of distributed energy resources (“DER”) — such as local

renewables, demand response, and energy storage — and we establish market mechanisms that realize the full potential of integrating these solutions for optimized economic, environmental, and resilience benefits. The Clean Coalition also collaborates with utilities, municipalities, property owners, and other stakeholders to create near-term deployment opportunities that prove the unparalleled benefits of local renewables and other DER.

III. COMMENTS

A. Infill solar+storage has better siting potential and value creation than remote, ground mount solar+storage.

Solar Landscape agrees that infill projects—sited on rooftops, parking lots, and parking structures—create significantly greater value than remote ground mount projects.³ The Brattle Group study they commissioned quantified the additional value created by infill projects as between \$0.04-0.09/kWh, which could result in greater savings for the subscribers if the program is designed in a way that properly compensates the different types of solar. Moreover, the additional value from infill projects is greater than what was considered in the Brattle Group study when social costs (and non-energy benefits) are considered.⁴ One of these additional value streams should be avoiding the PCIA, since there are no infill projects in the IOU’s portfolios.

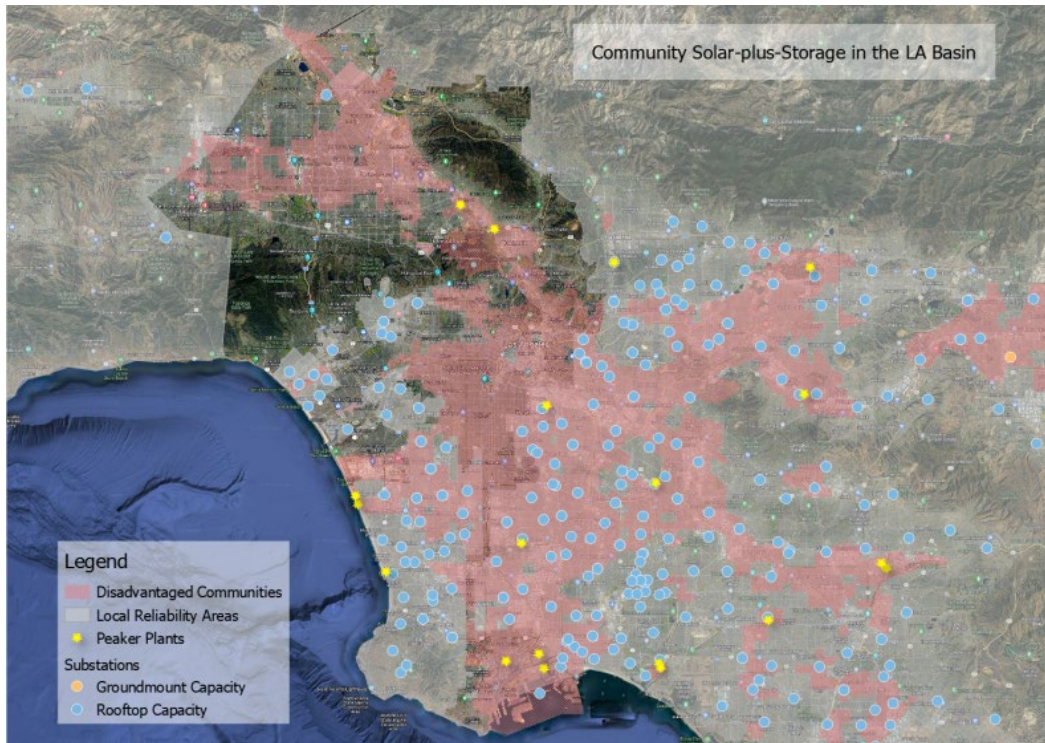
Unfortunately, the current proposals treat all solar+storage projects as creating the same benefits, regardless of the distance to subscribers or the needed grid infrastructure. The Clean Coalition believes that truly unlocking the Community Solar market in California requires deploying projects that create the most value for the subscribers and maximizing siting opportunities. Infill projects that are compensated for the full range of benefits produced will lead to higher cost-effectiveness scores and unlock previously unviable options in urban/suburban environments.⁵ See the image below, which estimates the siting potential for community solar+storage in the LA Basin.⁶

³ “Commercial rooftop CSS projects provide unique grid and ratepayer benefits that warrant their own consideration and in-depth analysis.” Comments of Solar Landscape at p. 2.

⁴ See the Opening Comments of the Solar Energy Industries Association (“SEIA”) on Cost-Effectiveness, at p. 8 and Opening Comments of the Center for Biological Diversity (“CBD”) Cost-Effectiveness, at p. 7.

⁵ Infill projects are also deployed faster than remote ground mount projects because they have a shorter interconnection time and are exempt from CEQA.

⁶ The image was developed by CCSA witness Brandon Smithwood (from Dimension Energy) See the following article: <https://laist.com/news/climate-environment/with-rooftop-solar-energy-out-of-reach-for-many-heres-what-community-solar-could-do-for-us>



The solar siting survey clearly shows that the vast majority of siting potential in the LA Basin, particularly nearby disadvantaged communities (“DAC”), comes from rooftops. These locations fulfill the Commission’s ideal scenario that projects be sited in, and directly serve, ratepayers living in DACs. On the other hand, the map above shows only one remote ground mount project that could potentially be sited within a DAC. Accounting for the equal compensation for all types of solar+storage under the proposed NVBT combined with the lower installed cost of remote ground mount solar, the most likely result is a scenario where only one project in the entire area—the ground mount project—is deployed: a very unsuccessful result.

Finally, consider that much of the area pictured in the Solar Siting Survey above is within the footprint of a CAISO Local Reliability Area; under Cal Advocates’ proposal, these sites could receive compensation for reliability benefits.⁷ While we understand the rationale for this proposal, we do not agree. The ten Local Reliability Areas are limited in area—they only include a small portion of California—and do not represent the only opportunities to provide reliability benefits.⁸ For example, allowing unbundled storage and truly local [infill] solar will have a significant peak transmission reduction effect and exports from projects sited close to the load

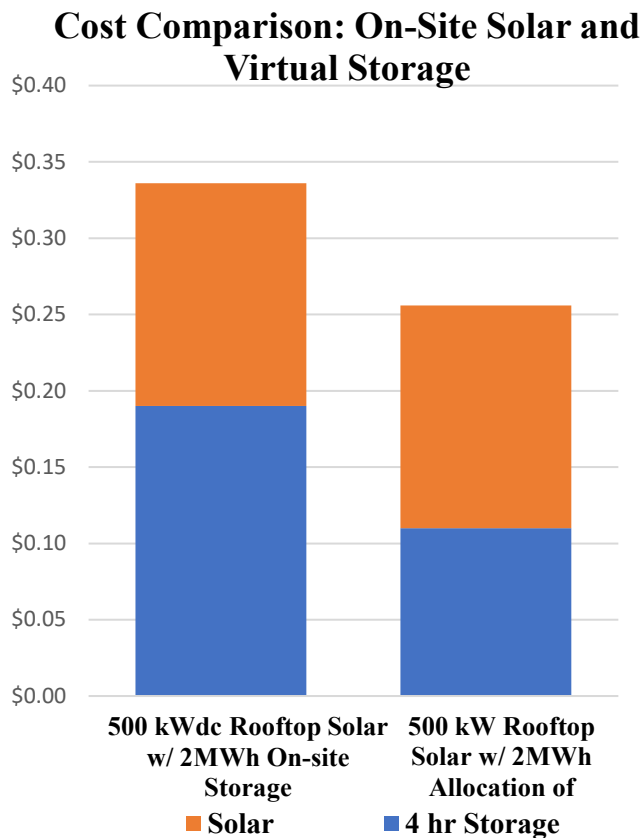
⁷ Opening Comments of Cal Advocates on Cost-Effectiveness, at p. 19.

⁸ <https://clean-coalition.org/news/local-solar-is-the-best-solution-for-reducing-peak-transmission-usage-and-electricity-costs-for-ratepayers/>

being served (or in a Load Pocket) will increase in value over time as load growth occurs and the state gets closer to fully decarbonizing/electrifying. Therefore, the Commission should not be persuaded by the arguments that Cal Advocates makes regarding reliability area benefits and should instead prioritize properly incentivizing infill projects.

B. Virtual (unbundled) storage will improve the cost-effectiveness of the program and the viability of siting infill projects.

In opening comments, SCE explains that the difference in cost between utility-scale and wholesale distributed generation can be attributed to “economies of scale,”⁹ a statement that relates to project costs more than value creation. Further analysis of deploying a project under the NVBT reveals that with the requirement for paired storage, the main benefit from economies of scale does not come from the solar, but from the energy storage, which is the main cost driver. See the image below, which demonstrates the differences in power purchase agreement (“PPA”) pricing with co-located solar+storage versus solar+unbundled storage.



⁹ Opening Comments of SCE on Cost-Effectiveness, at p. 19.

With paired storage, the price is nearly \$0.34/kWh, whereas the same sized solar system with unbundled storage results in a PPA price of \$0.25/kWh, a cost reduction of 25%. In addition to the reduced cost, the larger energy storage will provide much greater value than a 4-hour battery co-located with on-site solar.

Ideal sites for infill solar are not necessarily ideal locations for infill storage. Storage takes up a footprint on flat ground by the grid which could limit parking, access, or facilities for employees or communities. Moreover, a solar+storage pairing requirement would limit solar to locations where the storage could also be sited, which would eliminate many excellent sites. Adopting the Clean Coalition’s proposal to unbundle solar from the storage will allow developers to site storage at the most cost-effective sites, enabling solar deployments in dense urban environments.

C. Truly local infill projects should receive full avoided transmission value, beyond what is currently valued in the ACC.

One of the key mandates in AB 2316 is the requirement that the Commission must fully value the costs and benefits created by projects under a successor Community Solar program, which has not yet been completed due to the undervaluation of avoided transmission value created by distributed generation. As the Center for Biological Diversity (“CBD”) explains in opening comments, “community solar and other DERs can avoid the need for new or upgraded transmission capacity by reducing peak demand for electricity and shifting daily peak loads to later in the day. In doing so, community solar can help eliminate the need for transmission to serve higher peaks in demand.”¹⁰ Part of problem identified by CBD relates to the current allocation of Transmission Access Charges (“TAC”),¹¹ which are metered at the customer meter—making it appear as if all energy uses the transmission grid for deliver to end-users—regardless of where the energy is actually generated. Truly local infill projects generate energy and transmit it to subscribers entirely on the distribution grid; no transmission infrastructure is utilized. The ratepayer benefits that include reduced congestion (and congestion revenue rights), reduced line losses, and improved efficiency, can be reasonably valued through avoided TAC.

¹⁰ Opening Comments of CBD on Cost-Effectiveness, at p. 14.

¹¹ TAC are defined as 100% volumetric usage charges for using the transmission grid, meaning the costs are passed through directly to consumers. Though TAC are metered incorrectly in the IOU services territories, the municipal utilities allocate TAC correctly: at the transmission distribution substation. See more at the [TAC Campaign website](#).

There is also the issue of how avoided transmission is valued in the ACC. While the intent of these comments is not to relitigate the ACC, it is worth noting that the Clean Coalition, CBD, and other parties have made similar comments on multiple occasions and yet the subject is not currently up for consideration in the next ACC update. We hope that raising the issue in this context will provide another example of the real economic effects of not fully valuing avoided transmission and demonstrate why it is reasonable to compensate truly local projects for avoided TAC. The current ACC values avoided future transmission for specified projects, with a methodology for PG&E that has not yet been applied to SCE and SDG&E. This creates an inherent difference in valuation between the three IOUs. CBD also underscores that fact the ACC vastly underestimates required transmission spending between 2021 and 2025, based on both historical data and the CAISO Transmission Planning Process.¹² In addition to an artificially low specified avoided transmission value, there is no valuation for non-specified avoided transmission, where the deployment of DER leads to transmission infrastructure never reaching the threshold for upgrades. The ongoing process of updating the ACC means that the current flaws can be remedied before the modified NVBT has been unrolled for a significant amount of time. However, it is imperative that the avoided TAC value is considered in the pricing stack for truly local [infill] projects to be valued appropriately, both for a full accounting of benefits and to allow developers to accurately model project economics.

D. The Avoided Cost Calculator is the proper tool to use to value exports under the NVBT.

The Clean Coalition appreciates that other parties brought up the examples of RES-BCT and VNEM as programs that value front-of-meter (“FOM”) interconnections via an avoided cost framework rather than using the Least Cost Best Fit (“LCBF”) methodology.¹³ We point to the recently released Proposed Decision in the Net Energy Metering proceeding, in which the Commission rationalizes using the ACC to compensate VNEM systems as necessary to harmonize the program with the Net Billing Tariff (“NBT”).¹⁴ The same is true for the NVBT; it is designed to provide similar value to the NBT for customers that are unable to access NEM,

¹² Ibid

¹³ Opening Comments of SEIA on Cost-Effectiveness, at p. 19 and Comments of CCSA, at p. 35-36.

¹⁴ <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M515/K973/515973905.PDF>

satisfying all the requirements of AB 2316 (once greater compensation is provided to infill projects). The policy mandate to procure a specific amount and type of renewable capacity inherently—based on a specific avoided cost compensation mechanism—makes the LCBF framework inappropriate and necessitates use of the ACC to value exports in this situation. The avoided costs mentioned in AB 2316 refer to avoided costs to the ratepayers [from the benefits of DER], not avoided costs to the utility under the Public Utility Regulatory Policy Act (“PURPA”). Therefore, we disagree with parties suggesting that use of the ACC is inappropriate.¹⁵

E. The Commission should not be persuaded that the NVBT will cause a cost shift.

The investor-owned utilities (“IOUs”) claim that the NVBT will create a cost shift as a way to persuade the Commission not to adopt it, an argument that should not be persuasive. First, the IOUs present different cost shift values; PG&E claims that 1 GW of projects will create a cost shift of \$8.1 billion¹⁶ and SDG&E claims that a \$58/kw cost shift in the first year.¹⁷ PG&E’s claim is incumbent on a greater amount of capacity being deployed than is currently allotted by the legislature, which is unreasonable and should be deemed out of scope for this proceeding. SCE claims a cost shift but does not present any quantitative analysis.¹⁸ Second, the cost-effectiveness test results for the NVBT are far better than the scores of any of the existing programs; if the IOUs claim that the NVBT will create a cost shift, then the logical conclusion is that scaling up the existing programs would result in a far greater cost shift. Third, the value of community solar+storage projects will increase over time with the implementation of non-energy benefits and a Distribution System Operator (“DSO”) to optimize the flow of distributed generation. Arguments that claim the NVBT will result in an increasing cost shift over time without considering the additional 40% of value that can be realized by the ratepayers should not be persuasive to the Commission.

IV. CONCLUSION

¹⁵ Opening Comments of the Joint CCAs on Cost-Effectiveness, at p. 10, Opening Comments of PG&E on Cost-Effectiveness, at p. 15, Opening Comments of SDG&E on Cost-Effectiveness, at p. 7, and Opening Comments of SCE on Cost-Effectiveness, at p. 3.

¹⁶ Opening Comments of PG&E on Cost-Effectiveness, at p. 10

¹⁷ Opening Comments of SDG&E on Cost-Effectiveness, at p. 3.

¹⁸ Opening Comments of SCE on Cost-Effectiveness, at p. 19.

The Clean Coalition respectfully submits these reply comments and urges the Commission to include pricing for truly local infill projects that reflects the additional value creation beyond that of remote ground mount projects and open the program to virtual (unbundled) storage to take advantage of economies of scale. As explained by Assemblymember Ward, the author of AB 2316, “California has the potential to create one of the largest and most equitable community solar programs in the country. The CPUC needs to swiftly and effectively develop policies supporting the success of community solar,” which include effective pricing for all types of solar and a proper valuation of the benefits created by infill projects.¹⁹ Infill solar projects, particularly those deployed in DACs, meets goals from the legislature, the DER Action Plan 2.0,²⁰ and the ESJ Action Plan.²¹

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¹⁹ <https://calmatters.org/commentary/2023/04/community-solar-access-law/>

²⁰ See Vision Elements 1D, 3B, 4B, and 4C.

²¹ See goals 2 and 4 of the ESJ Action Plan.