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.	Application 22-05-022 (Filed December 2, 2022)
And Related Matters	Application 22-05-023 Application 22-05-024

CLEAN COALITION COMMENTS ON ADMINISTRATIVE LAW JUDGES RULING SETTING ASIDE SUBMISSION OF THE RECORD TO SEEK COMMENTS ON ASPECTS OF NET VALUE BENEFIT TARIFF PROPOSAL

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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 comments in response to the *Administrative Law Judge's* ("ALJ's") *Ruling Setting Aside Submission of the Record to Seek Comments on Aspect of Net Value Benefit Tariff Proposal,* issued at the Commission on November 6, 2023. As explained in the Clean Coalition's Reply Brief and comments on cost-effectiveness, we support a modified version of the Net Value Billing Tariff ("NVBT") that fully values infill solar and allows for deployments of unbundled (virtual) storage. Due to a close proximity to the load served and a reduction in the need for transmission infrastructure required to deliver energy to end users, infill solar project provide the greatest value stack. In these comments we explain:

- Allowing unbundled (virtual) storage will maximize the benefits from each deployment, including additional reliability, resilience, and cost-effectiveness.
- CCSA's proposal on generation capacity value should be accepted. No other fully formed option exists on the record, let alone one that is practical and includes a streamlined interconnection process.
- Solar should be limited to a size of 5MW, based on nameplate capacity. There should be no limit on the size of unbundled storage.
- The Commission should not adopt a program cap or sunset date. Nothing in the record of the proceeding justifies the need for either.

- Infill projects using the NVBT will not cause up-stream impacts on the transmission system.
- Interconnection under Rule 21 should not be limited to behind-the-meter ("BTM") deployments. Front-of-meter ("FOM") deployments should also be allowed to use Rule 21.

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.

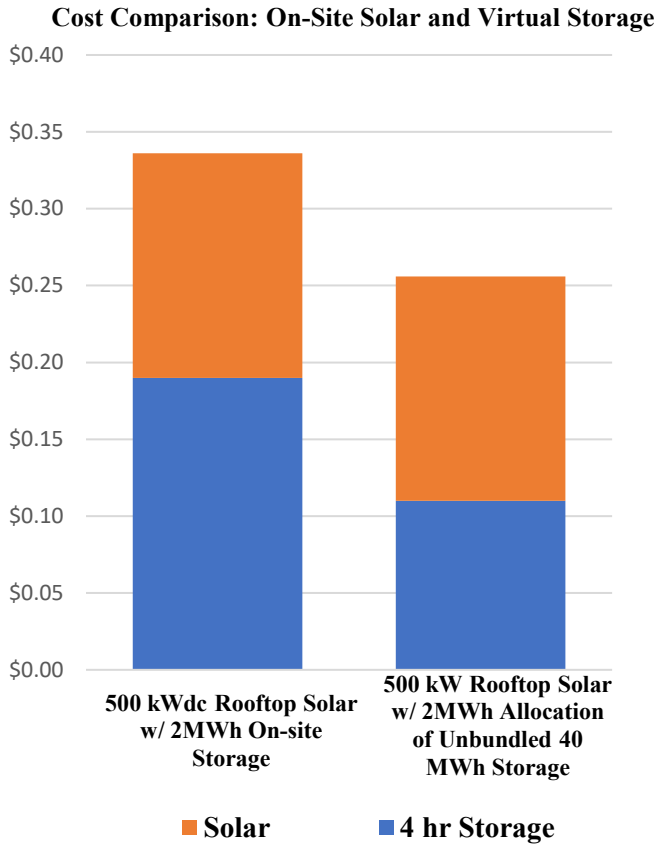
III. COMMENTS RESPONDING TO QUESTIONS

i. Grid Reliability and Capacity Values

1. *Is Coalition for Community Solar Access's (CCSA's) proposal for capacity generation value the most optimal methodology to incentivize capacity when the grid needs support? Would another methodology be preferable for determining a capacity generation value that incentivizes capacity to align with grid needs?*

CCSA's proposal represents the most practical way to value the capacity-related grid benefits from Community Solar. The closer a deployment is to the load served, the more effective it is in terms of providing grid support. The benefit to the grid will come in the form of available capacity during the 4-9 p.m. daily peak period, which is exactly what CCSA's proposal—using the ACC—is designed for. The NVBT inherently values capacity during the peak period at a higher level than non-peak capacity, tying successful project economics to usage of energy in a way that benefits the grid. Therefore, the Clean Coalition does not believe that another methodology is necessary at this time, or that an alternative has been presented that is more effective than the proposed methodology.

From a practical standpoint, the most effective way to guarantee capacity is available is to allow deployments of unbundled (virtual storage); the greatest value stack comes from infill solar deployed with unbundled storage. The proposed requirement for onsite paired solar+storage, while aimed at ensuring dispatchability, unnecessarily limits the amount of capacity that each project can provide. Storage deployments are restricted in size by available space—a premium for business owners—and as a result, developers are unable to fully take advantage of economies of scale. On the other hand, including an option for unbundled storage will enable the largest possible storage deployments, reducing the installed cost of the storage by as much as 20-30% due to economies of scale and maximizing the available capacity that can be utilized to reduce strain on the grid to benefit the ratepayers.[1]



[1] CLEAN COALITION COMMENTS ON ADMINISTRATIVE LAW JUDGE'S RULING SETTING ASIDE SUBMISSION OF THE RECORD TO SEEK COMMENTS ON COST-EFFECTIVENESS CONSIDERATIONS, at p. 6.

The example above, first posed in the Clean Coalition's Reply Comments on Cost-Effectiveness[2], shows the significant cost decrease from unbundled storage. With on-site paired storage, the total price is nearly $0.34/kWh. With the same size solar system and higher capacity unbundled storage, the total price drops to $0.25/kWh, a cost reduction of 25%. The larger energy storage deployment will provide far greater value than a 4-hour battery co-located with on-site solar, particularly during peak periods when exports result in the greatest grid benefits.

Finally, it is worth noting that the existing Rule 21 tariff does not include a way for a project to receive any other deliverability status than "Energy Only", making the wholesale deliverability study process the only option for opting into Resource Adequacy ("RA"). However, as has been mentioned throughout the Clean Coalition's comments in this proceeding, the interconnection pathway has clear implications on timing and project economics.[3] An extended interconnection process or a requirement to pay for expensive grid upgrades is often enough to prevent a proposed deployment from moving forward. Thus, relying on the Wholesale Distribution Access Tariff ("WDAT") for a FOM interconnection and using the traditional deliverability study process will add multiple years to the interconnection process and tens, if not hundreds of thousands of dollars in costs. CCSA's proposal is far more practical than any suggestion to require a WDAT interconnection; the added hardships associated with the existing WDAT interconnection process and the lack of process amendments/streamlining over the last half-decade demonstrate that a requirement to use the WDAT interconnection process would result in an ineffective program.

2. *Should the Commission establish appropriate controls to ensure that resources that participate in the proposed net value billing tariff (NVBT) would be dispatched to reduce ratepayer cost and support grid reliability? If yes, what type of controls are needed?*

The Clean Coalition does not think any controls need to be implemented to ensure projects would reduce costs and support grid reliability. We strongly believe that the most appropriate policy measure the Commission can take in this proceeding related to improving grid reliability

[2] CLEAN COALITION REPLY COMMENTS ON ADMINISTRATIVE LAW JUDGE'S RULING SETTING ASIDE SUBMISSION OF THE RECORD TO SEEK COMMENTS ON COST-EFFECTIVENESS CONSIDERATIONS, at p. 5.

[3] CLEAN COALITION COMMENTS ON ADMINISTRATIVE LAW JUDGE'S RULING SETTING ASIDE SUBMISSION OF THE RECORD TO SEEK COMMENTS ON COST-EFFECTIVENESS CONSIDERATIONS, at p. 15.

while reducing ratepayer costs would be allowing developers to deploy unbundled storage through a virtual arrangement paired with equivalent solar projects.[4] Storage will be the main cost driver of every solar+storage project deployed under the NVBT, especially if there is a tradeoff between fully utilizing the existing space on the site or deploying storage. Based on the principle of economies of scale, the larger the storage deployment is, the lower the overall cost will be, especially if the storage is deployed in a way that maximizes the benefits to the ratepayers. A virtually paired storage deployment opens up the possibility for a NVBT project to also provide other grid services or defer a distribution infrastructure upgrade.

3. *Since 2016, the Avoided Cost Calculator has used long-term avoided generation capacity costs to estimate the value of distributed energy resources, which is significantly higher than most compensation provided through resource adequacy contracts. Based on the value NVBT resources provide to the grid, should these projects receive full ACC avoided generation compensation based on long-term marginal costs; or is there a more appropriate value (whether derived from the Avoided Cost Calculator or other methodology), that would more accurately value these resources contributions to grid reliability in compliance with statute?*

No comment at this time. We reserve the right to comment in our reply comments.

4. *Should NBVT resources be accounted for in the California Energy Commission's (CEC's) load forecast, thereby reducing LSEs Resource Adequacy requirements by their pro rata load share?*

Yes, NVBT projects should reduce LSEs RA requirements. The NVBT resources should not be required to go through a WDAT interconnection process and the deliverability study process prior to being accounted for as a reduction in the CEC's total load forecast. Even with the new Central Procurement Entity ("CPE") in place to solicit contracts for RA, LSEs are having trouble fulfilling the requirement for local RA. Allowing NVBT resources, which will have a predictable generation profile, to reduce local RA requirements will create a huge incentive for project deployments. Programs administered by Community Choice Aggregators ("CCAs") have already led to some of the biggest capacity deployments under the existing programs. This requirement will give the CCAs an even bigger reason to harmonize local planning based on the need for more DER deployments.

ii. <u>Guardrails</u>

5. *If a community renewable energy program tariff were to be adopted, should the tariff be limited to five-megawatt (MW) projects and smaller?*

[4] This proposal would maintain the proposed ratio of 1 MW generation and 4 MWh energy storage.

The Clean Coalition is open to a 5 MW limit cap for solar projects under the NVBT. However, the cap should only apply to the solar, based on the nameplate capacity. We do not believe that it is effective to rely on the inverter size, nor should the size of the energy storage be limited in any fashion. Policies that encourage large energy storage deployments, such as enabling unbundled storage will result in the greatest benefits for the ratepayers.

6. *If a community renewable energy program tariff were to be adopted, should the tariff include an overall program cap? If yes, should it be the proposed four-gigawatt cap or another amount? Explain your reasoning.*

Considering adoption of a program cap is premature at this time. The Clean Coalition recommends that this issue be tabled until there is some reason to believe that the number of deployments will truly merit a program cap to safeguard the ratepayers. We do not believe that the record supports any such assertion currently. The total capacity from all of the existing programs is not close to reaching the goals mandated by the legislature (less than 1 GW). Prior to a sufficient number of deployments leading to the state having the existing capacity targets within sight, adding a program cap is taking a step not supported by evidence in the record of this proceeding. Furthermore, the reduced number of solar deployments under the Net Billing Tariff and Virtual Net Billing Tariff makes a successful NVBT one of the only options to meet the state's targets for customer-sited renewables. Thus, the focus should be on ensuring that the program will be successful for all types of projects, by properly valuing infill solar and allowing unbundled storage, rather than prematurely adopting a program cap.

7. *Explain whether the Commission should adopt a sunset date for a community renewable energy program tariff?*

For the same reasons as iterated in question #6, the Clean Coalition does not support the adoption of a sunset date. We maintain that there is nothing in the proceedings' record that justifies the need for a sunset date.

8. *Given near-term capacity constraints in certain areas and the expectation that constrained areas will increase due to electrification, explain whether you would support TURN's proposal to limit project location and sizing to the distribution circuits that can accommodate interconnection without causing significant upgrades that increase ratepayer bills? Explain how this could be operationalized.*

The Clean Coalition does not support TURN's proposal to limit the size and areas where projects can be deployed under the NVBT. As a matter of practice, the state should be encouraging the deployment of infill solar+storage close to the load being served, for both the increased reliability and resilience benefits.[5] Infill solar is the most effective way to reduce peak transmission usage and eliminate transmission costs as the single biggest factor increasing electricity prices. Each kWh of infill solar reduces the need for remote-generated resources that require the transmission system, lessening the amount of line congestion, reducing line losses, and enabling normal market outcomes to occur (avoided transmission). This is why the Clean Coalition has recommended that Infill projects should receive avoidance of Transmission Access Charges ("TAC"). Any limitation to project location and sizing based on circuit upgrades could reduce the amount of infill solar that the program could handle and thus the Clean Coalition strongly believes that any limitation based on circuits would be strongly detrimental to the program.

From a practicality standpoint, the rationale behind TURN's proposal is to limit costs that will be shouldered by the ratepayers; in reality, the proposal would limit the **benefits to the ratepayers.** Most important to consider is the fact that the developer is responsible for shouldering the cost of distribution upgrades, not the ratepayers. TURN's proposal would make more sense if applied to the transmission system, where the cost of upgrades is included in the costs billed to the ratepayers. However, if applied to the distribution system, TURN's proposal would result in some distribution feeders not receiving any deployments (likely in disadvantaged communities, where upgrades are not as common), worsening the existing "next-project-up" mentality. TURN's proposal showcases the need to continue streamlining the interconnection process by implementing a cost-sharing option so future developers can allocate percentages of the cost of upgrades in a more equitable fashion, rather than heaping the entire cost on a single unlucky developer. This concept was discussed the last time the Rule 21 interconnection proceeding ("R. 17-07-007) was active but has not been fully considered.

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

Furthermore, an option for unbundled storage with a virtual pairing minimizes the impact that a NVBT project will have on the local distribution grid and will creates net benefits in the area, due to the deployment of a higher-capacity battery than would have been possible with a co-located solar+storage pairing. Rather than imposing a limit on siting projects, the Clean Coalition's proposal for unbundled storage will enable efficient usage of the grid, maximizing the benefits realized by the ratepayers.

iii. Interconnection

9. *Is there a potential for the interconnection of multiple generating systems to the distribution grid to lead to "upstream" transmission level issues and concerns? Is Rule 21 appropriate for potential NVBT in-front-of-the-meter resources, if there are these potential safety and potential grid impacts on the Transmission system?*

Distributed generation flows to the nearest available point of demand, including local meters or other distribution feeders. We do not believe that infill projects located near load centers will lead to upstream impacts on the transmission system, let alone the high voltage transmission system. As we have explained in comments throughout the proceeding, infill solar should be compensated for completely avoiding transmission infrastructure.

10. *Should interconnection under Rule 21 be limited to only behind-the-meter projects and/or those serving onsite load? Describe all implications for customer and grid safety in your response.*

Interconnection under Rule 21 should apply to both BTM and FOM projects. Project deployed under the NVBT will have a predictable and consistent generation profile in order to maximize the value under the ACC. As a result, the energy should be less difficult to manage than remote generation that is involved with multiple wholesale markets/grid services. The closer a project is to the load being served, the clearer the flow of energy is, making infill solar the most reliable interconnection process.

IV. CONCLUSION

The Clean Coalition respectfully submits these comments and urges the Commission to adopt a version of the NVBT that fully values infill solar and includes an allowance for unbundled storage. With the reduction in compensation for Net Energy Metering customers and Virtual Net Energy Metering customers, the NVBT will be the main option for customer-sited

solar. At this point, there is no other scalable program that can meet the needs of the state in a timely manner. The state is currently forecasting the need for unprecedented levels of deployments to achieve targets for renewable energy by 2030; the Commission should focus on ensuring that this program will result in deployments of infill solar at a sufficient pace. Customer-sited solar is a critical part of decarbonization and electrification, making the rollout of a comprehensive Community Solar program all the more important.

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