

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

Order Instituting Rulemaking to Consider
Distributed Energy Resource Program Cost-
Effectiveness Issues, Data Access and Use, and
Equipment Performance Standards.

Rulemaking 22-11-013
(Filed November 17, 2022)

**CLEAN COALITION COMMENTS ON ORDER INSTITUTING RULEMAKING TO
CONSIDER DISTRIBUTED ENERGY RESOURCE PROGRAM COST-
EFFECTIVENESS ISSUES, DATA USE AND ACCESS, AND EQUIPMENT
PERFORMANCE STANDARDS**

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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 *Order Instituting Rulemaking to Consider Distributed Energy Resource Program Cost-Effectiveness Issues, Data Use and Access, and Equipment Performance Standards*, issued at the Commission on November 17, 2022. We appreciate the opportunity to comments and recommend the following:

- We highly support the development of a Societal Cost Test, as soon as possible. In order to fully value DER benefits to the community and broader electrical grid, there needs to be a more accurate method of determining cost effectiveness.
- We support the continued modification of the Avoided Cost Calculator, including updated and more accurate avoided transmission values.

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. The Commission should focus on valuing externalities

In order to properly address environmental justice and equity issues that exist on the electrical grid today, the state needs to fully capture the value of a number of externalities that are not currently considered in the planning process. Externalities are defined as consequences of commercial/industrial production that are not captured in the cost of the goods and/or services being produced. Over the past two decades, the biggest externality to be included in the cost of electricity production has been the cost of carbon. Even so, there is work to be done; many experts would argue that the current cost of carbon is not nearly high enough and does not fully capture life-cycle costs. Other negative externalities, including the full cost of carbon, the cost of out-of-state methane leakage, and historical costs of pollution still need to be fully realized in order to mitigate existing pollution and prevent further damage from occurring. Parallel to the consideration of negative externalities, the Commission must focus on valuing the full range of benefits (positive externalities) that different distributed energy resources (DER) provide, with regards to both the broader electrical grid and community needs.

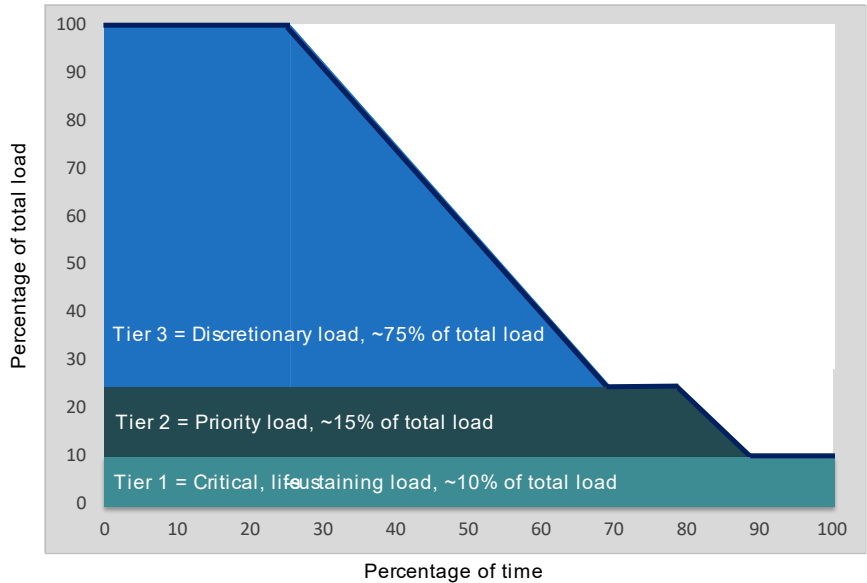
i. Creating a standard value of resilience

Over the last two decades, the number of behind-the-meter microgrids have increased, but the number of Community Microgrids — which provide the greatest number of benefits to the most people — have not increased at the same rate. Part of the reason for this bottleneck is that resilience, one of the main value offerings of microgrids (and more specifically Community Microgrids), still remains more of a philosophical concept than a bankable revenue stream. Existing regulatory forums, namely the CPUC's Microgrids proceeding (R. 19-09-009) have not addressed this issue in any depth. As a result, parties interested in deploying microgrids — homeowners, businesses, and municipalities alike — all intuitively understand that resilience is valuable but cannot identify a specific dollar amount worth paying for resilience. **The value of resilience is one of the central value offerings on distributed generation that should be captured in a Societal Cost Test.**

The Clean Coalition has developed a standard methodology for valuing resilience, called the value of resilience 123, or VOR123, which standardizes resilience values for three tiers of loads, regardless of facility type or location. **Tier 1**, usually about 10% of the total load, are mission-

critical, life-sustaining loads that warrant 100% resilience. **Tier 2**, or priority loads, are usually about 15% of the total load that should be maintained as long as doing so does not threaten the ability to maintain Tier 1 loads. **Tier 3** are discretionary loads that make up the remaining loads, usually about 75% of the total load. Tier 3 loads are only maintained when doing so does not threaten Tier 1 and 2 resilience.

Typical load tier resilience from a Solar Microgrid



Percentage of time online for Tier 1, 2, and 3 loads for a Solar Microgrid designed for the University of California Santa Barbara (UCSB) with enough solar to achieve net zero and 200 kWh of energy storage per 100 of kW solar.

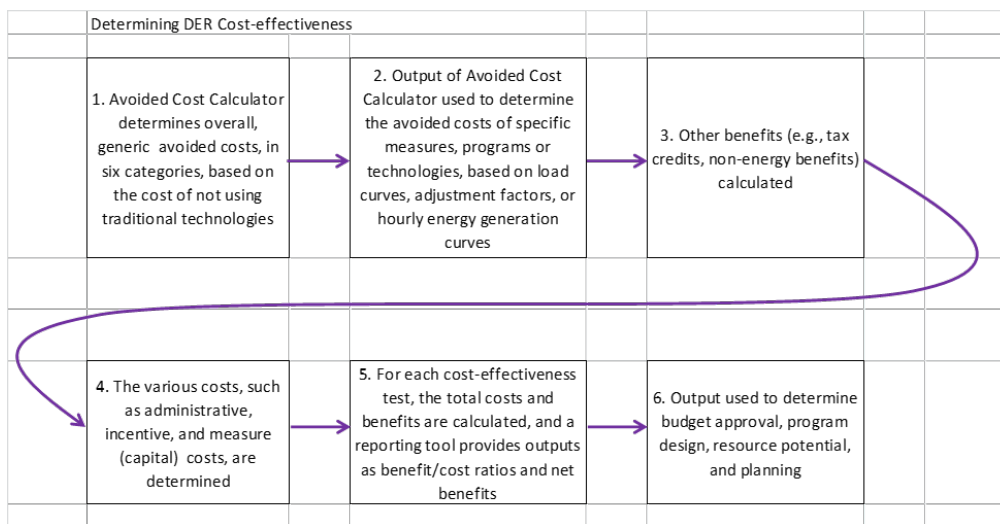
In the Clean Coalition’s experience, the total premium a facility is willing to pay for renewables-driven backup power to critical loads 100% of the time (and backup for other loads a significant percentage of the time) is 25% on top of the normal rate of energy. We have verified this value using four approaches: a cost-of-service (COS) approach, avoided diesel approach, a market value approach, and the Department of Energy calculator.¹ A 25% adder is a very substantial number, especially when resilience is not considered as a standard value for DER programs or included as an input in the Avoided Cost Calculator.

¹ <https://clean-coalition.org/news/webinar-valuing-resilience-solar-microgrids-thursday-5-nov-2020/>

B. Considering Non-Energy Benefits through a Societal Cost Test

As discussed above with the need for a standard value of resilience, it is essential that both energy and non-energy benefits are fully valued. We appreciate the effort that the Commission and the Energy Commission have taken thus far by acknowledging the need focusing on non-energy benefits and are encouraged that the High DER proceedings might take up the issue. However, we advocate that the Commission include non-energy benefits in the Societal Cost Test as an environmental justice issue. As long as these issues are not considered in standard cost-effectiveness tests, it is less likely that community-centric energy planning will occur and it remains more difficult than it should/could be for widespread DER adoption to occur in historically disadvantaged communities.

For full valuation of non-energy benefits, the Commission should prioritize the creation of a Societal Cost Test. The figure below shows the existing Commission-process for determining cost-effectiveness of customer DER programs.



CPUC Process for Determining DER-program Cost-Effectiveness²

Step three of the flow diagram, valuing the non-energy benefits and considering benefits toward achieving broader policy goals, is rarely ever done thoroughly, and certainly is never calculated in full because the focus is on the existing Total Resource Cost (TRC) test. In theory, the

² <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/demand-side-management/energy-efficiency/idsm>

Commission does have a test that encapsulates these values, the Societal Cost Test (SCT), which is described in the 2001 iteration of the Commission’s Standard Practice Manual (SPM). While the test is a variant on the TRC test, “The Societal Test differs from the TRC test in that it includes the effects of externalities (e.g., environmental, national security), excludes tax credit benefits, and uses a different (societal) discount rate.”³ Whereas the TRC Test only considered value to the ratepayers and utility, the SCT considers a much broader view, including more accurate representations of tax credits as transfer payments. The SPM describes a non-exhaustive list with seven different categories. Twenty-one years after the 2001 iteration of the SPM was released, the Commission has made progress via Energy Division Staff released a White Paper which considers valuing three of these categories and we appreciate that the Commission will be considering it further through this OIR.⁴ We urge the Commission to iterate the importance of a SCT to modern cost-effectiveness and meeting ESJ goals and make the jump from considering the value of a SCT to actually developing the full test. Without a SCT, the CPUC repeatedly rejects values for resilience, location, land use conservation, and out-of-state methane leakage, making it appear as if the value is zero. There is, in fact, real value that comes from each of these potential adders, but the difficulty of capturing the real value to the grid has made it easier for regulators not to capture any of the value.

C. Track 1 Questions:

1. *R.14-10-003 focused on making cost-effectiveness methods more consistent across DERs. To accomplish this, D.16-06-007 adopted a universal ACC which is updated annually and required for use by all DER proceedings. What other aspects of cost-effectiveness should also be made more consistent across DERs, and which of those are priorities?*

The Clean Coalition believes that minimum fixed costs for distribution and transmission can be made more consistent across the IOUs, as well as the avoided costs. For example, only PG&G currently has a methodology in place to value avoided transmission costs. The same methodology should apply to SCE and SDG&E. Moreover, it should be extended to include unspecified avoided transmission.

³ CPUC Standard Practice Manual at p. 18

⁴ https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/integrated-resource-plan-and-long-term-procurement-plan-irp-ltpp/2019-2020-irp-events-and-materials/societal_cost_test_impact_evaluation.pdf

2. Should the Commission develop cost-effectiveness methods for emerging and bundled technologies? Which technologies, or combinations of technologies, should we prioritize, and what are the most important considerations?

No comment at this time.

3. How important is it to fully incorporate DERs into the IRP process? What kinds of tools, data, models, or processes would we need? How can the resource proceedings best provide data to the IRP process, and how can they best use IRP output data?

It is essential, given the potential value of demand side resources and demand flexibility. We need to optimize the planning process to best use all the options we have. Including DER and targeted deployments of DER will maximize ratepayer savings over the next three decades, as seen in the VCE WisdomP model.

4. Should the Commission authorize the allocation of additional ratepayer funds for consultant support to continue the ACC work?

No comment at this time.

5. Please comment on any additions or changes needed to the preliminary Track 2 schedule provided in section 4 below.

The Societal Cost Test needs to be discussed earlier in the process.

IV. CONCLUSION

The Clean Coalition respectfully submits these comments.

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