

21 February 2023

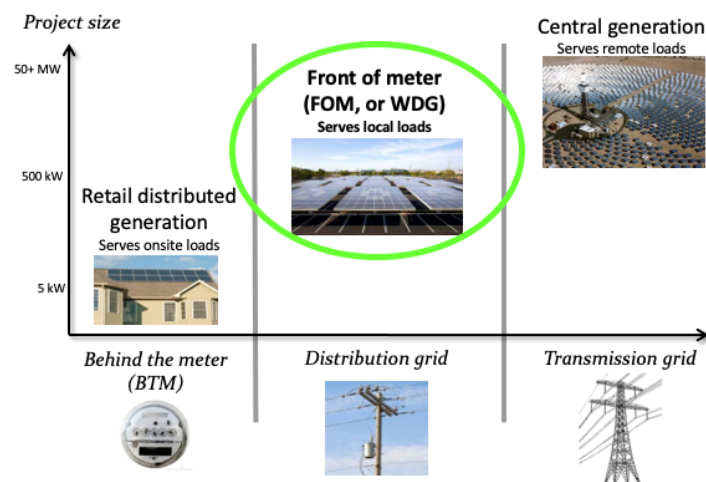
California Energy
Commission
715 P Street, Sacramento,
CA 9581
Via Electronic Filing

**CEC Docket 21-ESR-01: Clean Coalition Comments on Diablo Canyon Power Plant Extension,
Draft CEC Analysis of Need to Support Reliability**

Dear Chair, Vice Chair, California Energy Commission Members, and Staff,

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.

We appreciate the opportunity to submit these comments on the Diablo Canyon Power Plant Extension, Draft CEC Analysis of Need to Support Reliability and request that the California Energy Commission (the Energy Commission) amend the report to include the suggestions provided in these comments before a final report is approved at the end of February. Overall, while the report contains a significant number of important recommendations about the procurement process for transmission-interconnected resources, there is not nearly enough detail about the role of distributed generation in ensuring reliability or the need to streamline front-of-meter (FOM) interconnection (via the Wholesale Distribution Access Tariff, or WDAT), to realize the full potential of the wholesale distributed generation (WDG) market segment.



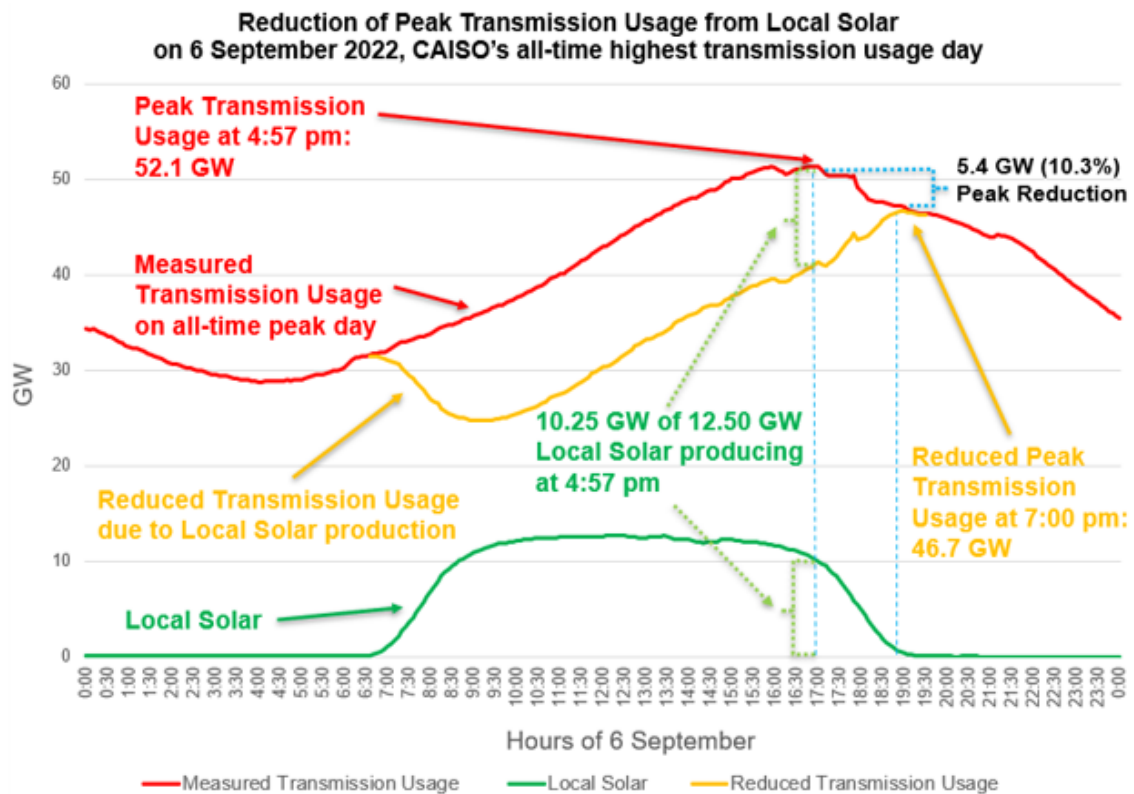
“Community-scale renewables [or WDG] enjoy the cost advantages of much larger projects without much of the attendant environmental impacts or need for new transmission lines and associated costs. The community-scale market segment combines the benefits of the small-scale and utility-scale market segments.”¹ Clean Coalition comments will explain why the final report needs to address the value of community-scale renewables—with a focus on local solar—and should specifically highlight the need for WDAT interconnection reform.

Local solar is the best solution for reducing peak transmission usage and electricity costs for ratepayers.

Clean Coalition firmly believes that the final SB 846 report should address the value of local solar and provide options to promote deployments of local solar and local solar+storage on built environments (rooftops, parking lots, and parking structures). Recommendations should clearly promote opportunities for new deployments and analyze potential retrofits where co-located storage can be installed alongside existing solar projects. In our opinion, although the focus of this report is adding capacity for reliability purposes, the Energy Commission can only achieve a least-regrets investment framework by properly weighing additional project benefits that go beyond reliability. For example, local solar creates value in the form of reduced peak transmission usage that leads to more efficient market outcomes. Reduced energy imported from the transmission grid also means reduced transmission-grid line losses and congestion. Local solar and solar+storage also adds value by helping to set the stage for Community Microgrid deployment.

The Energy Commission’s key takeaway should be that local solar is the most effective way to reduce peak transmission usage, and in eliminating transmission costs as the biggest factor increasing electricity prices in California. Consider 6 September 2022, the day the California Independent System Operator (CAISO) recorded the highest all-time peak system demand. The graphic below shows that if the 12.5 GW of transmission-interconnected solar generated that day had instead come from local solar, the peak transmission usage on that all-time historic-peak day would have been reduced by over 10%. Hence, local solar would have had a nearly 5 times greater impact in reducing peak transmission usage than the record-setting 1.2 GW of demand response on that day.

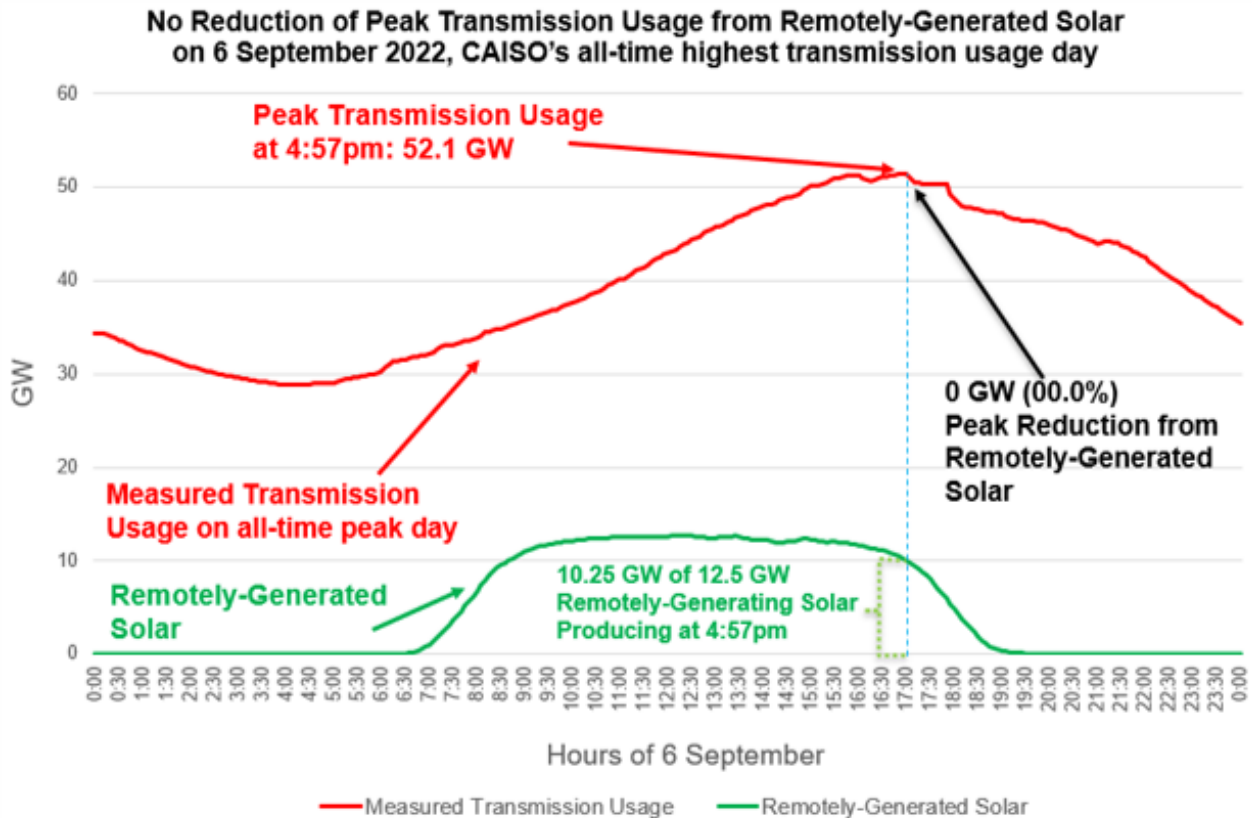
¹ Green Power Institute (2023), A MODERN CINDERELLA STORY: Assessing the state of California’s community-scale renewable energy market, V1.6, at p. 3



Given that peak transmission usage is the primary cause of new transmission investments, local solar is poised to save ratepayers hundreds of billions of dollars in avoided transmission costs. Local solar reduces peak transmission usage by almost 50% of the total generating capacity of the local solar. Importantly, the benefits of local solar increase exponentially when paired with local energy storage, including via export capabilities coming to Electric Vehicles (EVs). One estimate puts the peak reduction effect of local solar+storage at 70% of installed capacity.²

On the other hand, it is worth being crystal clear that remote generation of any flavor that is dependent on the transmission grid does not reduce transmission usage. For a clear example, here is a chart showing the remote solar provided no reduction to the peak transmission usage on 6 September 2022 – the same as on any other day, because remote solar inherently depends on the transmission grid to get delivered to where electricity is needed, which is where people live and work:

² Application of the Center for Biological Diversity, the Protect Our Communities Foundation and the Environmental Working Group for Rehearing of Decision 22-12-056, at p. 26.



The Energy Commission should amend the section on interconnection to include a detailed list of recommended changes to the WDAT interconnection process.

In their responses to the letter from CPUC President Alice Reynolds concerning the prioritization of interconnection to ensure grid reliability, the CEOs of the three investor-owned utilities (IOUs) showed a concerning lack of focus for streamlining WDAT interconnection. Other than briefly mentioning WDAT interconnection, PG&E and SCE both provided no recommendations for WDAT-specific interconnection reform, nor a strategy on how they will respond when the number of WDAT applications increases significantly over the next few years, in line with the state's ongoing transition to a High-DER future.³ Clean Coalition does appreciate SDG&E's statement that, "of particular note, SDG&E wishes to highlight that it is experiencing exponential increases in both the number and size of projects seeking interconnection service under WDAT," though we had hoped SDG&E would include WDAT-specific interconnection reform recommendations – they did not.⁴ The information contained in the three IOUs' letters does not represent the difficulty that most developers have had with the WDAT process, particularly for projects not eligible for Fast Track interconnection. Furthermore, none of the three IOUs actively addressed how the changing distribution grid and upgrades required due to load growth might affect the interconnection process.

³ PG&E Response to CPUC's March 11, 2022 Letter Concerning the Prioritization of Interconnection to Ensure Grid Reliability and SCE Response to CPUC's March 11, 2022 Letter Concerning the Prioritization of Interconnection to Ensure Grid Reliability

⁴ SDG&E Response to CPUC's March 11, 2022 Letter Concerning the Prioritization of Interconnection to Ensure Grid Reliability, at p. 6

Therefore, we strongly recommend that the Energy Commission highlight the need for streamlined WDAT interconnection in the final report. *When it comes to distributed generation, streamlined WDAT interconnection is the greatest opportunity to improve the FOM procurement process.* Over the past decade, interconnection timelines (and costs) for projects being deployed behind-the-meter (BTM) have been greatly reduced due to the CPUC's Rule 21 proceeding (R. 17-07-007). Now, California needs to take the lessons learned from Rule 21 interconnection reform and apply them to the WDAT process. See the table below, which shows the differences in cost and the duration of the interconnection process for 1 MW projects applying for a BTM interconnection versus a WDAT Fast Track interconnection.

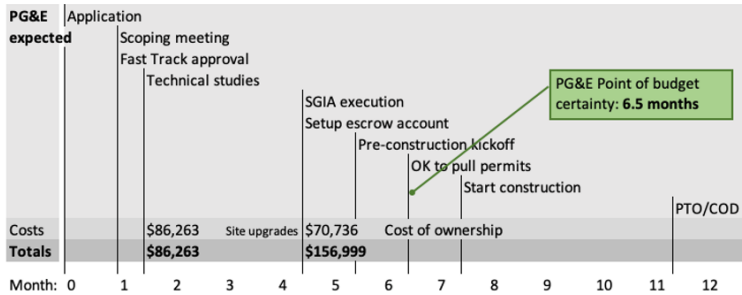
Factor	BTM 1 MW rooftop project	FOM 1 MW rooftop Fast Track project
Typical cost	\$37,500	\$312,450
Typical timeframe	302.5 business days	723 business days

The interconnection process for a typical FOM project costs more than eight times as much as the typical BTM project and will likely take more than twice as long as a BTM project. Reform is necessary to shorten the interconnection application review process and pre-construction timelines, eliminate late design surprises and cost increases, and make policy fixes to streamline FOM interconnection. Consider the following three issues with current WDAT Fast Track Interconnection:

1. FOM interconnection costs cannot be definitively determined prior to application from publicly available information.
2. FOM projects face significant delays during interconnection studies.
3. FOM interconnections are not allowed on NEM customer service line drops, adding substantial costs and complexity.

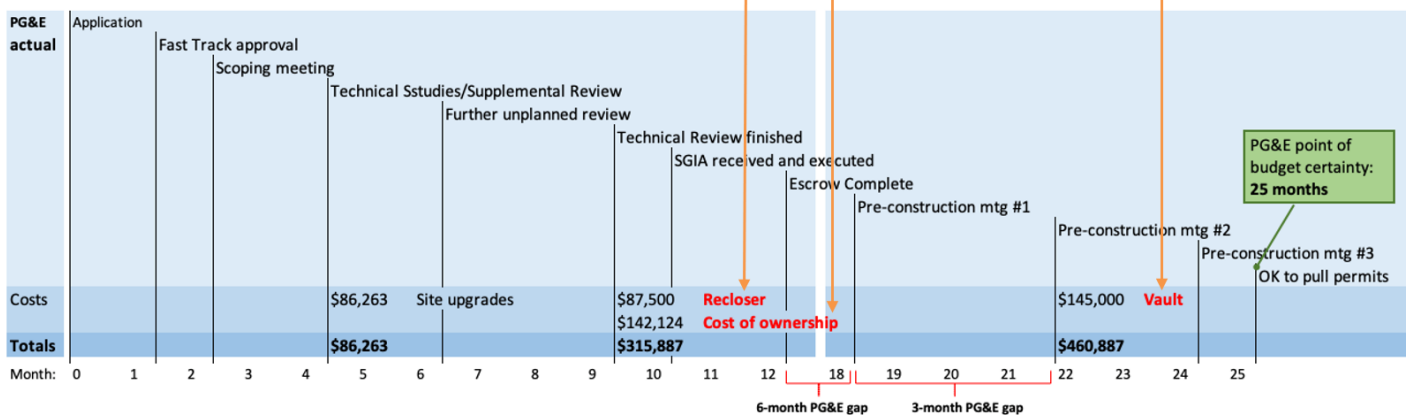
Clean Coalition has firsthand experience with the difficulties of the WDAT interconnection process. As part of our CEC-grant funded Valencia Gardens Energy Storage (VGES) project, Clean Coalition navigated the Fast Track interconnection process with PG&E. An expected six-month timeline took over two years due to utility delays and the cost for upgrades ballooned from \$156,999 to \$460,887.

FOM Interconnection Application submittal to OK to pull permits was expected to take about six months.



Late surprise cost increases

Instead, the process took over two years.



VGES - Expected Fast Track FOM Interconnection timeline vs. actual

Creating a determinative FOM interconnection process that reduces uncertainty for developers is key to unlocking the value of a high DER future, including, but not limited to local resilience and greater flexibility. The table below summarizes issues Clean Coalition had during the VGES WDAT interconnection process and solutions that will improve the process for all three IOUs.

WDAT Interconnection Issues and Clean Coalition Solutions

Issue	Summary of issue	Solution
Slow upgrade process	For some parts of the process, developers are currently unable to work directly with third parties to make utility upgrades; for any upgrades that the IOUs must make, developers must rely on the utility's schedule, which leads to delays.	Approve a system like the Rule 21 interconnection process, which allows utility third-party vendors approved by the utility to carry out infrastructure upgrades. (All requirements, specifications, and inspections would still be in the hands of the utility.) Allowing pre-approved developers to work directly with third parties would address the need for upgrades in a timely manner while reducing total project costs.

Confidentiality	IOUs consider all project-specific information confidential — even though developers do not generally request confidential status.	Offer specific details on interconnection studies to provide important information for project managers, and to foster collaboration between developers throughout an IOU service territory. Redact information upon developer request (opt-out by default, opt-in by choice).
Prohibitive interconnection costs	Current project economics make interconnection costs prohibitive.	Adopt a standard fee for projects that meet certain deterministic criteria, and ensure that the utility pays for upgrades directly. The Clean Coalition's proposed Fixed Fee & Utility Pays (FixUP) policy would extend the streamlined BTM interconnection processes, timing, and price certainty to small FOM projects. (See Appendix A, below, for more information on FixUP.
Uncertainty caused by upgrade cost increases	FOM interconnection costs cannot be definitively determined or even roughly estimated prior to application from publicly available information. FOM projects also face significant delays during interconnection impact and cost responsibility studies.	Implement a cumulative cost approach, ensure that the applicant receives the final design and costs early, reduce timeline gaps between SGIA/financial security deposit phase to pre-construction/permit-ready status, shorten the interconnection application review process and pre-construction timelines, and the utility to begin analysis early with all subject matter experts.
Lack of access to data (part 1)	Grid upgrade costs are not transparent in advance and come as a surprise to developers.	Provide greater access to ICA data prior to submission of an interconnection application, allowing developers to determine locations where grid upgrades are not necessary or which upgrades are most cost-effective. Add to ICA maps all projects and dates in the interconnection queue to accurately represent the feeders once the projects are interconnected.
Lack of access to data (part 2)	It is not possible to do an accurate cost/benefit analysis without accurate information about potential utility costs.	Provide on-demand/online modeling to allow applicants to optimize system size and design relative to impact mitigation costs.
Lack of project	Personnel changes, missed	Tighten the project management process by:

management flexibility	internal-utility deadlines, late additions of equipment upgrades, last-minute construction changes for major equipment, delayed project schedule, a delayed engineering costing, and lengthy timelines	<ul style="list-style-type: none"> • Holding bi-weekly interconnection application check-in calls from the beginning of the project with the interconnection manager assigned to the project that include all relevant parties as okayed by the customer of record. • Ensuring subject matter experts at the utility work in parallel. <p>PG&E will only speak to the customer of record or customer representative (typically the subcontractor/EPC); however, the customer of record should be allowed to invite all relevant parties to listen in.</p>
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Based on Clean Coalition experiences with IOU-representatives at interconnection workshops over the last few years, the IOUs are not focused on initiating the WDAT-amendment process to streamline FOM interconnection. A recommendation by the Energy Commission in the final report that the IOUs should initiate WDAT reform would go a long way toward jumpstarting long-needed action.

Conclusion

Clean Coalition appreciates the opportunity to submit these comments on the Diablo Canyon Power Plant Extension, Draft CEC Analysis of Need to Support Reliability and urges the Energy Commission to consider the value of community-renewables (particularly local solar) and the need for WDAT interconnection reform). We look forward to further discussing the role of distributed generation in addressing California's reliability concerns.

/s/ BEN SCHWARTZ

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