

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

Order Instituting Rulemaking Regarding
Microgrids Pursuant to Senate Bill 1339 and
Resiliency Strategies.

Rulemaking 19-09-009

**CLEAN COALITION REPLY COMMENTS IN RESPONSE TO ADMINISTRATIVE
LAW JUDGE'S RULING ON POTENTIAL MICROGRID AND RESILIENCY
SOLUTIONS FOR COMMISSION RELIABILITY ACTION TO ADDRESS
GOVERNOR NEWSOM'S JULY 30, 2021 PROCLAMATION OF A STATE OF
EMERGENCY**

/s/ BEN SCHWARTZ

Ben Schwartz
Policy Manager
Clean Coalition
1800 Garden Street
Santa Barbara, CA 93101
Phone: 626-232-7573
ben@clean-coalition.org

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I. INTRODUCTION

Pursuant to Rule 6.2 of the CPUC Rules of Practice and Procedure, the Clean Coalition respectfully submits these reply comments in response to the Administrative Law Judge’s (“ALJ”) Ruling on Potential Microgrid and Resiliency Solutions for Commission Reliability Action to Address Governor Newsom’s July 30, 2021 Proclamation of a State of Emergency. The Clean Coalition offers the following recommendations in response to opening comments:

- Interconnection reform must be an integral part of any solutions to reliability concerns. Reducing uncertainties in the interconnection process, both the amount of time and the capital it will take before an interconnection application is approved, will increase the number of dispatchable resources capable of reducing the peak load.
- An Emergency Services Tariff could benefit the grid while adding an additional revenue stream for microgrids.
- A regional microgrid program will create another layer of support for consumers/developers who are interested in deploying microgrids.

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 state should make a concerted effort to streamline front-of-meter (“FOM”) interconnection.

While there is still work to be done, over the last decade significant changes have been implemented to streamline behind-the-meter (“BTM”) interconnection. The same can not be said of FOM interconnection, as GPI points out in opening comments.¹ As the chart below demonstrates, no part of the FOM interconnection process is determinative; every step has a range in both amount of time and money that is necessary before the next step can take place. Applicants are unable to conclusively estimate what it will take to complete the interconnection process from publicly available information and also face significant delays during interconnection impact and cost responsibility studies.

FOM rooftop 1 MW Fast Track project development (projects where ICA map indicates sufficient capacity)	Timeframe (business days)			Fees			Costs		
	Max	Min	Typical	Max	Min	Typical	Max	Min	Typical
PRELIMINARY WORK AND SITE CONTROL	371	113	216						
Site selection	2	1	1	\$-	\$-	\$-	\$600	\$200	\$300
Preliminary site evaluation and project screening	2	1	2	\$-	\$-	\$-	\$600	\$150	\$300
Preliminary layouts and performance models	7	1	3	\$-	\$-	\$-	\$4,000	\$1,000	\$2,000
Site control (Lease Option Agreement)	180	60	100	\$-	\$-	\$-	\$40,000	\$15,000	\$25,000
Preapplication reports	60	30	35	\$600	\$300	\$600	\$1,500	\$500	\$1,000
Other site research and selection	120	20	75	\$5,000	\$500	\$1,500	\$15,000	\$3,000	\$9,000
INTERCONNECTION REQUEST AND INITIAL REVIEW	50	23	37						
Prepare and submit interconnection application	10	3	5	\$800	\$800	\$800	\$20,000	\$5,000	\$10,000
Utility deems application complete	10	5	7	\$0	\$0	\$0	\$0	\$0	\$0
Initial review results	15	15	15	\$0	\$0	\$0	\$4,000	\$2,000	\$3,000
Developer requests initial review results meeting or proceeds to supplemental review	10	0	5	\$0	\$0	\$0	\$0	\$0	\$0
Initial review results meeting (if clear, go to GIA cost estimate or GIA)	5	0	5	\$0	\$0	\$0	\$1,000	\$500	\$750
INTERCONNECTION SUPPLEMENTAL REVIEW	110	50	70						
Decide to proceed to Supplemental Review	15	0	5	\$2,500	\$2,500	\$2,500	\$600	\$150	\$300
Supplemental review results	60	20	30	\$0	\$0	\$0	\$4,500	\$2,100	\$3,300
Developer requests supplemental review results meeting	15	0	5	\$0	\$0	\$0	\$0	\$0	\$0
Supplemental review results meeting	5	0	5	\$0	\$0	\$0	\$1,000	\$300	\$500
Decide to proceed to GIA draft	30	30	30	\$0	\$0	\$0	\$0	\$0	\$0
POWER SALES CONTRACT	340	100	180						
Review power sales options	100	20	60	\$0	\$0	\$0	\$5,000	\$2,000	\$3,500
Obtain Power Purchase Agreement	240	80	120	\$2,000	\$0	\$1,000	\$20,000	\$5,000	\$12,500
Negotiate GC/EPC and engineering contracts	30	10	20	\$-	\$-	\$-	\$10,000	\$1,000	\$5,000
GENERATOR INTERCONNECTION AGREEMENT (GIA)	60	1	30						
GIA negotiations and signatures (90 Calendar Day max time allowed)	60	1	30	\$0	\$0	\$0	\$5,000	\$2,000	\$3,500
GRID UPGRADES CONSTRUCTION	250	0	190						
Grid upgrade costs				\$0	\$0	\$0	\$300,000	\$0	\$150,000
O&M costs (Cost of Ownership or COO)				\$0	\$0	\$0	\$150,000	\$0	\$75,000
Coordinate upgrade construction with utility, deed transfers				\$0	\$0	\$0	\$10,000	\$2,000	\$6,000
PTO				\$0	\$0	\$0	\$1,000	\$500	\$750
COD				\$0	\$0	\$0	\$1,000	\$500	\$750
Totals (accounting for overlapping times)	1181	287	723	\$10,900	\$4,100	\$6,400	\$594,800	\$42,900	\$312,450
Typical totals			723			\$6,400			\$312,450

¹ GPI Opening Comments at 3

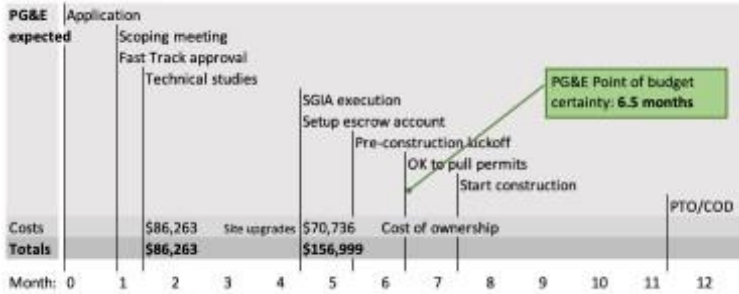
As a result, when compared with BTM projects, FOM projects cost more than 8 times as much, with an average cost of \$312,000 — and they take more than twice as long before an application is approved, with an average of 723 business days. Uncertain timelines, potentially taking around two years, can be just as devastating as high interconnection costs. Projects that get stuck in the interconnection queue languish and are more likely to fail as time passes, particularly if a project bounces from department to department and there is not one point of contact at the utility that a project developer can reach out to. Moreover, projects that require utility upgrades face further delays as part of the cost of ownership and deeding process, which will apply to most or all Community Microgrids.

Therefore, it is imperative that the Commission takes the first steps to develop a series of recommendations, with buy-in from the utilities, to ensure that common sense reform can be implemented (following FERC approval). As part of a CEC grant, the Clean Coalition partnered with PG&E to deploy a FOM energy storage system at the Valencia Gardens Apartment complex in downtown San Francisco. As part of the project, called the Valencia Gardens Energy Storage (“VGES”) project, the Clean Coalition got in-depth firsthand experience with the FOM interconnection process and the pitfalls that it contains. Initially, the time from the FOM Interconnection Application submittal to being able to pull permits was anticipated to be about six months, with the point of budget certainty at 6.5 months. Instead, the process took over two years, with the point of budget certainty at 25 months.

Expected Fast Track FOM Interconnection timeline vs VGES actual

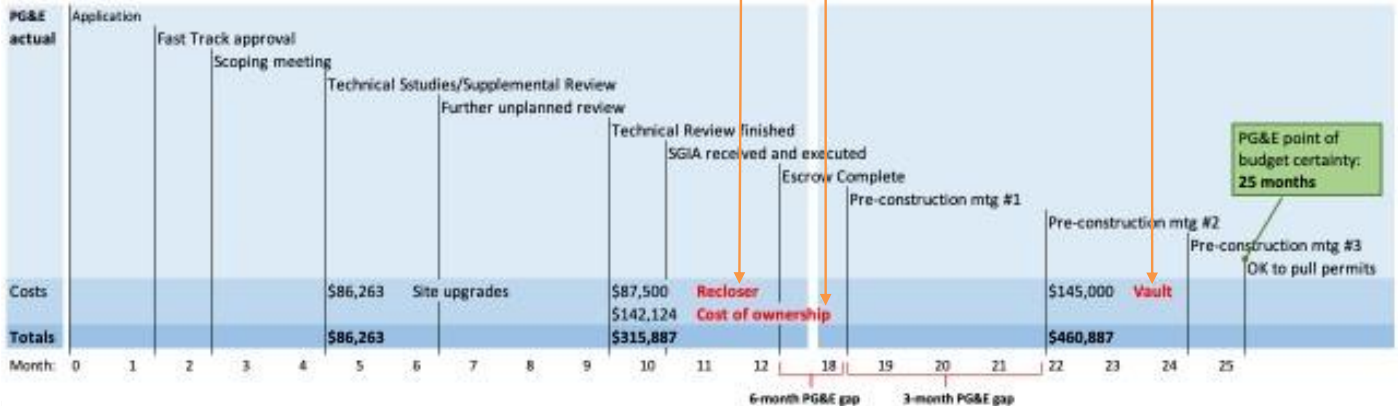


FOM Interconnection Application submittal to OK to pull permits was expected to take about six months.



Instead, the process took over two years.

Late surprise cost increases



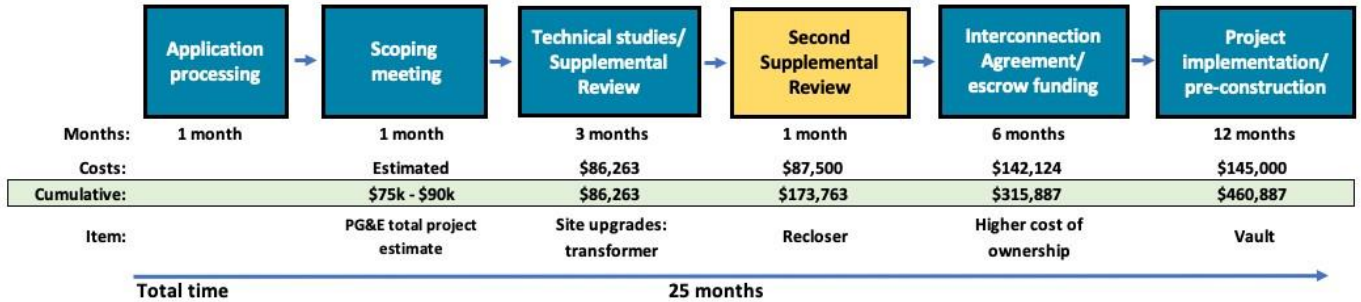
Making Clean Local Energy Accessible Now

Following this experience, the Clean Coalition has designed an interconnection pilot and a series of lessons learned to ensure a smooth interconnection process for future applicants. The full document, the VGES Front-of-Meter (FOM) Energy Storage Interconnection Case Study, has been introduced to the Resiliency and Microgrids Working Group — which is considering interconnection issues — and will also be included as an attachment to this filing. As demonstrated by the slide below, the proposed Interconnection pilot will streamline the interconnection process, which took over 2 years, to take around 6 months. The pilot will also reduce costs by more than half, from \$460k to an expected \$156,999k. These reforms are key for guaranteeing future DER applicants a smooth interconnection process, allowing the efficient deployment of FOM resources capable of offering a number of services to the broader grid.

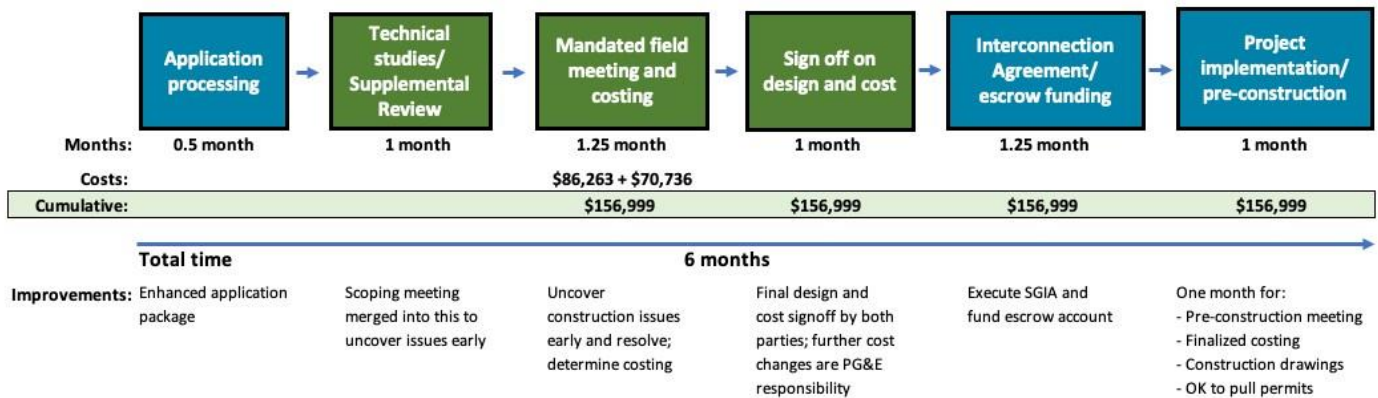
Pilot solution: VGES 2-BESS experience vs proposed pilot



VGES Fast Track Interconnection experience



Fast Track Interconnection proposed pilot



- b. Streamlining and an increased amount of automation can reduce BTM interconnection timelines.

Clean Coalition appreciates GPI’s in-depth comments about the joint GPI/Clean Coalition interconnection report produced as part of the R. 17-07-007 Interconnection Working Group 2. Each of the recommendations contained within the Issue 8 Appendix are as relevant now as when the report was published in October 2018. In particular, the Clean Coalition wishes to highlight the effect that automating/frontloading will have by providing applicants with cost certainty about the necessary infrastructure upgrades. The earlier a developer can have certainty, the smoother the planning, permitting, and constructions processes will be. Increasing automation will allow the

utilities to use staff for the most effective tasks, such as focusing on the timely interconnection of larger microgrid projects.²

c. MRC’s Emergency Services Tariff (“EST”) should be adopted.

The Clean Coalition views MRC’s Proposal 1 as an opportunity to utilize the number of existing single customer microgrids (and the few multi-customer microgrids) for the purpose of maximizing system reliability. While leveraging the microgrids for the benefit of the broader electrical grid, the EST would also add another value stream for microgrids, reducing barriers to statewide deployment of microgrids by increasing the opportunity for revenue. We also agree that the EST payments should be awarded in addition to RA, rather than in its place.

d. Creating a regional microgrid program.

The more opportunities there are for consumers and developers to engage with the government about resilience solutions, the more microgrids and DERs will be deployed. The Clean Coalition supports the County of Los Angeles’ proposal to, “to identify, implement, and incentivize installations of microgrid projects as a Regional Administrator for a Microgrid program.”³ We also support considering other counties that might fill a similar role across the state, to further reduce the inhibitions to the widespread proliferation of microgrids.

e. SCE’s BTM program should be adopted.

Clean Coalition agrees with implementing a program to allow BTM microgrids to island from the grid during peak hours to help the grid during emergency circumstances.

IV. CONCLUSION

The Clean Coalition appreciates the opportunity to submit these reply comments and requests that the Commission consider all aspects of improving demand response and energy efficiency in the state, including taking foundational steps such as streamlining FOM interconnection to reduce developer uncertainty.

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Ben Schwartz
Policy Manager
Clean Coalition

² CESA Opening Comments at 2.

³ County of Los Angeles Opening Comments at 2.

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