

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

Application of Southern California Edison Company (U338E) for Approval of the Results of Its 2013 Local Capacity Requirements Request for Offers for the Moorpark Sub-Area.

Application 14-11-016
(Filed November 26, 2014)

Order Instituting Rulemaking to Develop an Electricity Integrated Resource Planning Framework and to Coordinate and Refine Long-Term Procurement Planning Requirements.

Rulemaking 16-02-007
(Filed February 11, 2016)

**COMMENTS OF THE CLEAN COALITION ON REVISED MOORPARK SUB-AREA
LOCAL CAPACITY REQUIREMENTS PROCUREMENT PLAN OF SOUTHERN
CALIFORNIA EDISON COMPANY SUBMITTED TO ENERGY DIVISION
PURSUANT TO D. 13-02-015**

Doug Karpa, J.D., Ph.D.
Policy Director
doug@clean-coalition.org

Kenneth Sahn White
Director, Policy & Economic Analysis
sahm@clean-coalition.org

Clean Coalition
P.O. Box 87
Mill Valley, CA

September 7, 2018

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

Application of Southern California Edison Company (U338E) for Approval of the Results of Its 2013 Local Capacity Requirements Request for Offers for the Moorpark Sub-Area.

Application 14-11-016
(Filed November 26, 2014)

Order Instituting Rulemaking to Develop an Electricity Integrated Resource Planning Framework and to Coordinate and Refine Long-Term Procurement Planning Requirements.

Rulemaking 16-02-007
(Filed February 11, 2016)

**COMMENTS OF THE CLEAN COALITION ON REVISED MOORPARK SUB-AREA
LOCAL CAPACITY REQUIREMENTS PROCUREMENT PLAN OF SOUTHERN
CALIFORNIA EDISON COMPANY SUBMITTED TO ENERGY DIVISION
PURSUANT TO D. 13-02-015**

I. INTRODUCTION

The Clean Coalition respectfully submits these comments on the Southern California Edison (SCE) Moorpark Sub-Area Local Capacity Requirements Procurement Plan (“LCR Plan”), released August 29, 2018 pursuant to D.13-02-015 (Revised Moorpark Plan) and to the request of the Energy Division of the Commission, dated August 29, 2018 seeking comment regarding Resource Adequacy (RA) accounting for hybrid resources recently addressed in D.18-06-030. These Comments are served pursuant to the Energy Division’s email instructions, dated August 29, 2018. These comments are filed prior to the revised deadline of September 7, 2018 and are thus timely.

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, advanced inverters, demand response, and energy storage—and we establish market mechanisms that realize the full potential of integrating these solutions. The Clean Coalition also

collaborates with utilities and municipalities to create near-term deployment opportunities that prove the technical and financial viability of local renewables and other DER.

II. SUMMARY

a. SCE errors in its proposed categorization and resource adequacy evaluation of renewable resource facilities paired with energy storage.

SCE's proposed RA counting for hybrid resources considers pairing a battery with both dispatchable and non-dispatchable resources. The proposed treatment of dispatchable resources is reasonable, but the treatment of batteries paired with non-dispatchable resources fundamentally errors in both ignoring the ability of these paired resources to offer dispatchable capacity, and in assuming that in interconnection requirements the capacity of the battery must be additive to the resource with which it is paired. These errors will dramatically reduce the effective value of the resources while overstating their grid upgrade costs.

b. SCE must run a second DER procurement round using a standard offer, first-come first served tariff in order to meet the needs of the Santa Barbara area with renewable resources.

The resilience need in the Goleta Load Pocket can and should be met with 100% local renewable resources. The Cities of Goleta, Santa Barbara, and Carpinteria all have strong community commitments to 100% renewables, a history of fierce community opposition defeating two prior natural gas plant proposals, and natural gas fails any reasonable resilience standard because the "all eggs in one basket" and vulnerable gas lines mean this "solution" will fail to perform in the case of earthquake or any other wide spread disruption.

Instead, SCE should redouble its efforts to procure renewable Distributed Energy Resources. The Clean Coalition correctly predicted that SCE's Request for Proposals (RFP) approach would largely fail to solicit adequate DER bids, and we have been proven entirely correct. SCE could easily have solicited such resources, if the Commission had ordered it to use a standard-offer, first come-first served tariff approach instead of the proven failed approach of expensive and cumbersome Request for Proposals. The Commission cannot continue to ignore the poor track record of RFP/RFO processes for procuring DER in light of the resounding successes of standard-offer, certain acceptance approach of Feed-in tariff variants.

Finally, we reiterate our objections to SCE relying on flawed analysis of transmission economics by CAISO as a justification for not even bothering to source distributed energy resources that will not fail with the first mudslide or fire the way a fourth transmission line will. We strongly reiterate our prior comments regarding the inadequacy of CAISO's economic analysis of transmission costs relative to the costs of a DER solution.

III. COMMENTS

a. Resource Adequacy Quantification

SCE errors in its statements regarding the role that preferred resources will play in addressing LCR needs when it states "For instance, if LCR needs are associated with peak demands and the local capacity area is summer peaking, then distributed solar resources may be valuable. If, however, LCR needs occur at sporadic times throughout the year and are associated with transmission conditions rather than peak loads, then neither distributed solar resources nor DR will be valuable to meet those needs."¹ Both solar resources and DR do have highest effective capacity during summer peak periods, but both continue to have value throughout the year. The Commission has recognized that a mixed portfolio of preferred resources and storage is appropriate, more effective, and lower cost than any single resource solution, as demonstrated by Clean Coalition modeling. It is disingenuous and inappropriate for SCE evaluate individual resources in isolation and to do so is a violation of the intent of applicable statutes.

SCE's proposed RA counting for hybrid resources considers pairing a battery with both dispatchable and non-dispatchable resources. The proposed treatment of dispatchable resources is reasonable, but the treatment of batteries paired with non-dispatchable resources fundamentally errors in both ignoring the ability of these paired resources to offer dispatchable capacity, and in assuming that in interconnection requirements the capacity of the battery must be additive to the resource with which it is paired. These errors will dramatically reduce the effective value of the resources while overstating their grid upgrade costs.²

¹ Revised Moorpark Sub-Area LCR Procurement Plan, at pp11-12.

² It should also be noted that DER selling energy or participating in markets are responsible for all grid upgrade costs at both the distribution and transmission level, and these costs (if any) are already included in the prices offered by these resources. Additionally, peak loads served by

It should be recognized instead that pairing storage with a non-dispatchable resource such as solar PV allows the batteries to firm that resource during its ordinary operation and to shift and dispatch that resource to the full capacity of the battery. For example, a standalone PV facility will have a reduced qualifying capacity due to its resource variability, but can be an assured resource when paired with storage during daytime hours, and with advance dispatch notice the state of charge of the battery can be planned to reduce PV output to the grid during specific hours and/or extend output by dispatching the full battery capacity at any hour. This allows the hybrid resource to be fully dispatchable at all hours. The PV output can be released to the grid, absorbed by the battery, or curtailed if needed, at any time during its daytime operation, while the battery can be dispatched at any hour. As such, a battery sized to match its paired PV will allow dispatch of the full MW capacity of the battery for roughly twice the rated duration of the battery alone as long as this period includes the solar hours. The net qualifying capacity (NQC) of the hybrid system should reflect this, and make the facility eligible for EFC value based on the battery capacity *as supported by* the PV output.

Batteries paired with other resources also can be, but need not necessarily be, additive in simultaneous output to the grid. Both components of hybrid resources can be located behind a single inverter, offering greater facility efficiency while limiting the maximum output to the inverter capacity rather than the combined capacity of the resources connected to it.

b. The resilience need of the Goleta Load Pocket can and should be met with local renewable resources.

SCE must make additional efforts to meet the resilience need with 100% renewable energy resources. Not only would using fossil fuel resources run counter to the public policy of local jurisdictions, but procurement and development of new gas-fired generation (GFG) is incompatible with the recent passage and anticipated enactment of SB 100 establishing a goal of 100 percent emission free electric resources by 2045. Not only will such development hinder attainment of interim goals, but the operational lifespan of new GFG facilities will be effectively curtailed, shortening the opportunity for cost recovery, increasing the levelized cost of energy and other services from these facilities, and accelerating the need for new investment to replace

local resources reduce transmission capacity requirements, resulting in additional avoided costs for ratepayers.

these facilities in less than 25 years. Additionally, in order to maintain compliance with the Loading Order, GFG facilities should be operated only after preferred resources have been exhausted. As such, investment in a new GFG facility will sit idle and unused as much as possible, in contrast to preferred resources and storage where the investment will be fully utilized to provide energy and services at much lower marginal cost to their full capacity.

These factors must be considered in the application of Least Cost Best Fit calculations, and support the use of more effective local preferred resource procurement mechanisms, such as standard offer or CLEAN programs.

Deploying fossil fuel generation in the Goleta area would flagrantly dismiss the expressed will of the people of Santa Barbara county. The Cities of Santa Barbara, Goleta, and Carpinteria have recognized that the goals set by the State of California for greenhouse gas reduction are not fully adequate to avoid catastrophic climate change. Based on analyses by the Intergovernmental Panel on Climate Change, our global carbon budget to limit increases to under 1.5°C will be used by 2021, requiring faster action by jurisdictions willing to move faster since others will lag behind. In light of this, each of these cities have made commitment to achieve 100% renewable energy sourcing. Building a natural gas peaker to serve local needs would contravene local policies and constitute a serious violation of local standards.

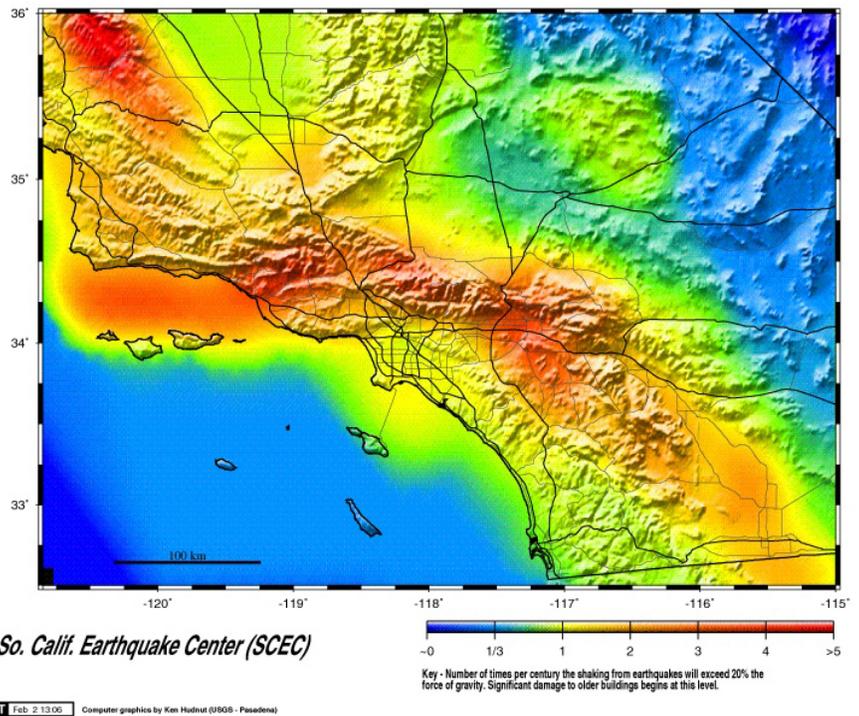
The people of the area have fought and defeated two natural gas plants within recent years. Both the Ellwood refurbishment in the Goleta load pocket and the larger Puente Power Project ran into a wave of local opposition. The Commission should not waste time countenancing a proposal that will inevitably face stiff local opposition and may well be defeated, requiring expensive and last-minute approaches to solve local needs.

c. Resilience must include robust disaster planning and not create ‘solutions’ that are vulnerable to the same disruptions causing the need for back up generation.

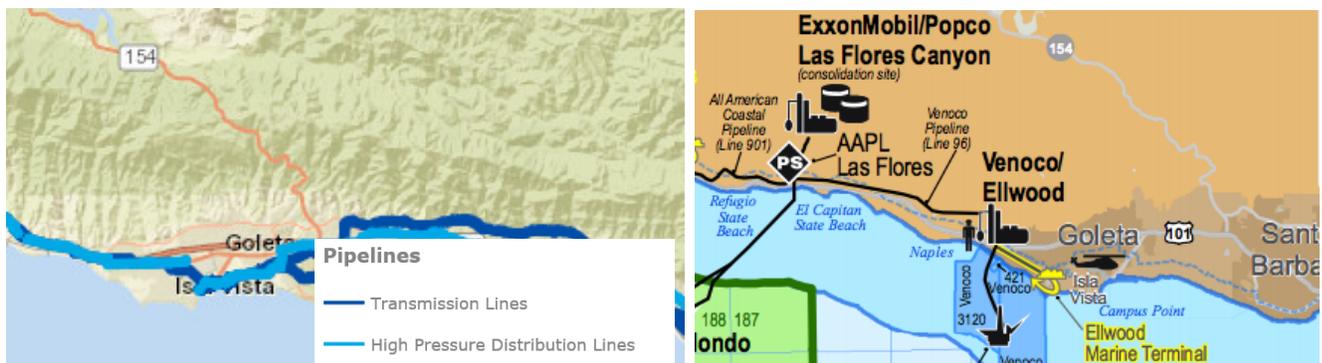
Vulnerability to the impacts of disaster must be a fundamental principle in any standard for resilience solutions. Resilience by definition implies a robust ability to recover from serious disruptions of the energy system. Redundancy that is vulnerable to the same disruption causing a large-scale disruption does not provide resilience. The starting point of any resilience analysis must be consideration of the kinds of disruptions we anticipate needing to provide resilience

against. Earthquakes, fires, slides, and major failures of transmission-based energy grids all have the capacity to create widespread failures of electrical equipment. Recovery from widespread impacts will not happen if the resilience back-up solutions have been damaged or destroyed by the same widespread disruption causing the outage in the first place. Thus, a redundant transmission line in the same location as existing transmission lines does not provide resilience against the loss of those lines because any area-wide disruption of the existing lines would also destroy the contingency line, leading to the loss of function despite the redundancy.

Santa Barbara is no stranger to seismic activity. In 1812, a 7.2-magnitude earthquake destroyed the original Mission Santa Barbara. A 1925 earthquake of magnitude 6.8 killed 13 people and severely damaged the downtown area. An emerging understanding of the Ventura-Pitas Point fault shows that it's capable of producing an earthquake in the range of magnitude 7.7-8.1, severe enough to cut off power and water supplies for Santa Barbara.



In Goleta, a natural gas plant would be an entirely inadequate solution for resilience because many disruptions that would damage transmission lines into Goleta may well also disrupt natural



gas lines. As with the astonishingly poor thinking that led SCE to propose a fourth transmission line in the same right of way as the existing lines, a natural gas plant represents approach fails to recognize that any earthquake or other event that disrupts transmission into the Goleta Load Pocket would possibly also disrupt the single natural gas line upon which the plant relies. Unlike inherently modular distributed PV and storage, any issue disrupting the single natural gas plant would lead to complete failure. Such poor disaster planning opens the people of Santa Barbara County to unreasonable and easily avoidable risk. A natural gas plant can only supply energy after a natural disaster if the gas lines have not also been disrupted by that same disaster.

The Commission should also recognize that the Goleta Load Pocket resilience need should not be subject to the same time constraints as the wider Moorpark LCR. Although the LCR deadlines are driven by the retirement of once-through-cooling plants, the resilience need is an ongoing and preexisting need not facing such deadlines. As a result, SCE has the opportunity to take additional time to meet the Goleta Load Pocket resilience need with DER.

That said, the Commission should recognize that the permitting process for a natural gas plant is vastly longer and far riskier than for a range of rooftop solar projects. As a practical matter, distributed generation is subject to ministerial permits by law,³ and is therefore does not require lengthy design review, conditional permit or CEQA reviews. sharp contrast, a natural gas plant would need a host of permits and need to go through an uncertain Energy Commission siting process. If time is truly of the essence in the Commission's view, then there is no question that large quantities of built environment solar can be deploy vastly faster and more reliably than any natural gas plant, much less one opposed by the local community.

Gas Fired Generation is clearly outside the scope of the vision of the Public Utility Commission, the Energy Commission, the State of California, the City of Goleta, The City of Santa Barbara, the City of Carpinteria, and the people of the Santa Barbara County.

d. SCE's onerous process for procuring smaller distributed energy resources fails to meet Commission requirements of the loading order.

³ Gov't Code § 65850.5 ("A city or county shall administratively approve applications to install solar energy systems through the issuance of a building permit or similar nondiscretionary permit."). This suggests that any putative ban or discretionary barrier to PV solar is illegal and unenforceable as a matter of state law.

SCE's inadequate approach to procuring DER in the Goleta Load Pocket is fails to meet its ongoing obligations under the loading order and violates state and local policies. The Commission has clearly expressed that preferred resources must be procured *first*. Critically, the Commission has not taken a position that taking half-hearted efforts known *a priori* to be inadequate are enough to satisfy this ongoing obligation. This obligation applies, regardless of whatever other requirements for the Renewable Portfolio Standard or other targets may or may not have been met. As the Commission has made clear, "the utility obligation to follow the loading order is ongoing. The loading order applies to all utility procurement, even if pre-set targets for certain preferred resources have been achieved."⁴ Here as elsewhere, SCE has an ongoing obligation to make reasonable efforts to procure preferred resources. "We understand that opportunities to procure additional energy efficiency or demand response resources may be more constrained than just signing up for more conventional fossil generation, but the utilities should still procure additional energy efficiency and demand response resources to the extent *they are feasibly available and cost effective*. If the utilities can reasonably procure additional energy efficiency and demand response resources, they should do so."⁵

The Energy Commission did not suspend the Puente Power Project out of a desire to see it replaced with another smaller natural gas plant and a transmission line to bring natural gas generation into the Moorpark Area. Instead, the Energy Commission expected "an expedited *preferred resources* procurement process."⁶ In keeping with the Public Utility Commission's order that SCE "shall include review of scenarios without [proposed natural gas plants]"⁷ and expressed a preference that the "Santa Barbara/Goleta needs ... focus ... on

⁴ D.12-01-33

⁵ D.12-01-33

⁶ California Energy Commission "Committee Order Granting Applicant's Motion to Suspend and Denying Intervenors' Application to File Supplemental Response" Docket No. 15-AFC-01, November 3, 2017.

⁷ Decision 17-09-034, "Decision in Phase 2 on Results of Southern California Edison Company Local Capacity Requirements Request for Offers for Moorpark Sub-Area Pursuant to Decision 13-02-015, October 5, 2017.

preferred resources.”⁸ Since it has been demonstrated that renewable/preferred or non-emitting DER can be a lower overall cost solution than either natural gas fired generation or transmission, a fully DER-based solution should be implemented. Any alternatives should be incorporated in the final LCR only to meet any remaining requirement, if any, after maximum DER procurement.

However, SCE’s approach has been woefully inadequate to achieve this goal. As the Clean Coalition correctly predicted when the LCR was first proposed without a procurement mechanism that is viable for smaller scale renewable projects, the final procurement will likely include non-preferred solutions. Our prediction has been borne out with SCE’s RFP process apparently having failed to solicit material amounts of preferred generation in the Goleta Load Pocket. It is past time for the Commission to stop repeating the proved failed approach of using RFOs and RFPs to solicit small scale projects and move to standard-offer contracts, first-come first served contract uptake, and transparent pricing. RFPs introduce excessive bid costs, high risk premiums that ratepayers should not be forced to bear.

SCE cannot argue it has made any reasonable attempt to procure distributed preferred resources. When SCE chose a proven failure of an approach instead of a clear superior alternative with a proven track record of success, it cannot plausibly argue it has taken reasonable steps to procure preferred resources. As the Clean Coalition has made clear, the apparent failure to procure material amounts of PV generation and other preferred resources is a direct result of the fatally flawed process used by SCE in this RFP. The cities of Goleta, Carpinteria, and Santa Barbara have significant siting opportunities with willing participants, but the onerous, risky, and prohibitively expensive RFP bidding process used by SCE has prevented these feasible and cost-effective opportunities from being realized. Artificial procedural and bureaucratic barriers do not render these projects not cost-effective or infeasible. Put simply, SCE has managed to block countless small-scale projects by imposing massive uncertainties regarding price or contract uptake, hundreds of thousands of dollars of bid costs, long interconnection delays, and opaque requirements on projects. The Commission should not be

⁸ Decision 17-09-034, Conclusion of Law 10.

surprised that making it an expensive and risky process to bid dissuades all but the largest and highest profit projects from moving forward.

- e. **The LCR Plan must use a CLEAN program, rather than an RFO process, to ensure maximum bid responses, minimal contract failure, and lowest cost.**

Given the apparent failure of SCE's approach, it is imperative that DER procurement be efficient, cost-effective, and timely. The Track 1 Decision solicitation requirements include "Provisions designed to be consistent with the Loading Order approved by the Commission in the Energy Action Plan and to pursue all cost-effective preferred resources in meeting local capacity needs" as noted by SCE.⁹ On this basis, a market adjusting preferred resource and storage standard offer should be considered with a price cap limited to the cost of the proposed GFG non-preferred alternative, after accounting for the value of energy, capacity, emissions and other LCBF factors. Failure to pursue this option prior to procurement of GFG clearly violates this criteria.

Given the overriding importance of a successful DER procurement, it is critical that the Public Utility Commission implement a procurement process that has low administrative costs, a strong historic record of successful bid recruitment, and a track record of turning bids into built projects, as has largely been demonstrated in SMUD's Feed-in Tariff (FIT) program, LADWP's more recent FIT program, and the Commission's own Renewable Market Adjusting Tariff (ReMAT), despite the problems associated with the latter's excessively restricted bi-monthly procurement caps. The Request for Offers (RFO) process is not such a process for recruiting large numbers of smaller projects. The particular characteristics of DER projects requires a more streamlined and efficient process: the CLEAN program. Such a process could be handled by first launching a comprehensive CLEAN Program, like the Feed-In Tariff that the Clean Coalition recently designed for East Bay Community Energy (EBCE)¹⁰ (or launching one if the RFO proves insufficient); and only approving any transmission or gas fired generation if the CLEAN Program fails to meet capacity targets.

⁹ Revised Moorpark Sub-Area LCR Procurement Plan, at 30.

¹⁰ Clean Coalition, East Bay Community Energy Feed-in Tariff Design Recommendations, www.clean-coalition.org/site/wp-content/uploads/2017/12/Task-3-EBCE-FIT-Design-Recommendations_DRAFT.pdf

Streamlining is critical because the developers of smaller projects need price certainty, transparency, contract standardization, and streamlined interconnection in order to be enticed to provide cost-optimized bids in a short timeframe. A market-adjusting CLEAN program provides all of these, while an RFO provides none. Since bids into an RFO involve hundreds of thousands of dollars in expenses with high levels of uncertainty around price,

developers face bid costs that eat up a high percentage of the project value (A \$150,000 bid on a \$3 million project represents a 5% cost just to launch a bid for an uncertain price and uncertain contract.) As a result of high administrative costs and high uncertainties, many potential bids will simply fail to materialize and those that do will include a risk premium, driving up overall costs.

In contrast to the proven failure of the RFO approach for large numbers of smaller projects, CLEAN Programs offer transparent prices in a staged market-responsive batched reverse auction that retains the transparency and standardization benefits of a Feed-In Tariff, while incorporating pricing set by a market auction mechanism. In a CLEAN Program, tranches of procurement are offered on a first-come, first-serve basis at a fixed price, with price adjustments for each additional tranche depending on the response to the prior round. By setting the first-round price at the lower end of a reasonable range, ratepayers are guaranteed a cost-effective mix that will be cheaper than RFO procurement because developers face lower risk. Such programs offer price certainty and standard contracts to developers and clean resources and cost-effectiveness to ratepayers.

Publicly accessible information that allows developers to self-screen for interconnection also fosters faster market response and deployment. Recent improvements in the soon to be published interconnection maps and Integration Capacity Assessment (ICA) hosting capacity data strongly support reliable site assessment. This can be further assured with a fixed-fee for qualifying projects that conform to the ICA values and related criteria such that grid upgrades are avoided.

CLEAN Program Framework

- 1) Offer standardized, transparent, non-negotiable contracts.
- 2) Offer streamlined interconnection processes, including batch studies.
- 3) Establish initial price for first tranche of capacity via market research.
- 4) Non-negotiable contracts are offered to the queue until tranche is full.
- 5) Adjust price at each successive tranche at price depending on market response to prior round (upward if response is weak, downward if strong)
- 6) Continue until all 308MW capacity is procured

The Clean Coalition is developing a further pilot with PG&E to trial such improvements as part of the Peninsula Advanced Energy Communities¹¹ program that should inform this element of the program.

The Commission should implement a standard offer CLEAN program to be implemented later in 2018 now that the initial bid Indicative Offer submittals have fallen short of expectations or needs.

i. CLEAN Programs are faster to deployment

Ultimately, the CPUC and California do not have time for SCE to get the procurement wrong. CLEAN programs¹² are faster and less prone to contract failure, because they are simpler for developers to respond to and simpler for the utility to evaluate. CLEAN Programs use standardized contracts and prices, cutting out the individualized negotiation process that delays RFO procurement. Once the CLEAN program offer has been issued, developers can assess the offer and respond quickly to the standardized conditions. Developers also are more likely to bid because they face much lower risk, because projects that meet requirements are guaranteed a procurement contract from the utility until a tranche is filled.

From the utility side, the selection process is a simpler and provides a faster standard review of whether a project meets requirements without cumbersome negotiations. The regulatory process is also faster, because the CLEAN program is subject to a single CPUC program

CLEAN Programs remove barriers and reduce costs

| | |
|--|--|
| <p>Typical California paperwork for one project</p>  | <p>Typical Germany paperwork for one project</p>  |
| <p>Could be a 1kW-sized project, but maximum 1MW (via CSI program). Even more paperwork for California projects larger than 1MW (via RPS program).</p> | <p>Could be a 1kW or 20MW-sized project, or bigger.</p> |

Source: Gary Gerber, President of CalSEIA and Sun Light & Power, Jun09

CLEAN can easily reduce costs by 20% by preempting bureaucracy alone

¹¹ Clean Coalition, Peninsula Advanced Energy Community (PAEC), <http://www.clean-coalition.org/our-work/peninsula-advanced-energy-community/>

¹² Clean Coalition, CLEAN Programs, <http://www.clean-coalition.org/our-work/renewable-utility-programs/unleashing-clean/about-clean-programs/>

authorization, rather than individualized review of every RFO contract.

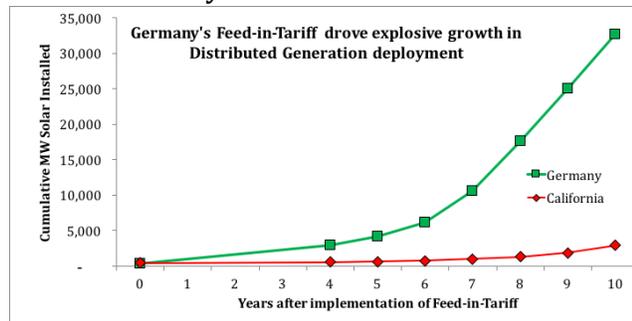
ii. Fixed-price programs have a proven record of successful procurement

CLEAN Programs share these key characteristics with Feed-in Tariffs, which have a proven record of rapidly deploying substantial renewable capacity well within two years from offer to final installation. As a leading example, Sacramento Municipal Utility District (SMUD) received nearly enough bids to fill SMUD's entire 100 MW Feed-In Tariff solicitation on the first day the Feed-In Tariff was launched in January 2010. Within two years, 45 MW had been installed and within three years 98.5 MW had been successfully installed.

This timeframe can be expedited to easily beat the schedule of the most expedited RFO process. Similarly, the AB1969 & ReMAT programs have successfully procured roughly 500MW of solar despite some significant ReMAT design flaws. The 98.5% success rate of the SMUD Feed-in Tariff and the record of AB1969 & ReMAT procurement is vastly better than SCE's record with RFO programs such as the one used in the PRP.

Similarly, other jurisdictions have used Feed-in-Tariffs to drive strong growth in renewables where there has been a strong push for rapid, cost-effective deployment. In one of the most dramatic examples of an exceptionally effective deployment of renewable energy, Germany vastly outpaced California's deployment by a factor of over 10 between 2002 and 2012, with current prices at an effective California cost of between 4 and 6 cents a kWh.¹³

- 1) Germany deployed over ten times the renewable capacity California did in the first ten years of the Feed-in-Tariff.



- 2) Germany installed nearly all of this capacity as in front of the meter distribution grid connected projects under 2MW.
- 3) Germany realized rates translate into a cost in California of **between 4 and 6 cents/kwh**, after accounting for federal tax incentives and increased output under California's superior solar resource.

¹³ Translating the installed costs per kWh into the California context must account for the exchange rate of euro denominated costs, the favorable tax treatment of solar (30% ITC plus other

iii. CLEAN Programs deliver market adjusting cost-effective prices

By starting with an initial price that meets the cost requirements and adjusts according to the response to the initial offer, CLEAN programs guarantee procurement is cost-effective. The initial price could be established by market research or a price based on the PPA price deemed reasonable for the Puente Power Project as approved by the Commission. Alternatively, although such an approach would remove the benefits of a transparent upfront price, the price of the initial round could be set by a Japanese Reverse Auction, in which the price offered for the first batch of capacity is lowered in stages, with bids withdrawing from the round until only enough bids to fill the first capacity tranche are left.¹⁴ Even with a more modest initial offering price, costs can be contained with a market-adjusting CLEAN Program in which the offer price adjusts depending on the response in the prior round. [Please see the accompanying Environmental Justice CLEAN Program description.] Furthermore, desired elements such as storage capacity can be either included in project requirements or induced through adders to incentivize dispatchability of the project capacity in order to ensure that the resulting offers can meet the entirety of the Moorpark Subarea procurement requirements.

f. SCE's Preferred Resources Pilot is a model of how not to procure DER

The public deserves a more effective and more transparent process than an RFO based on the Preferred Resources Pilot 2 (PRP2). SCE's choice of the PRP methodology in this RFO is particularly astonishing, since SCE pointed precisely to the PRP as an example of a program that struggled to procure large amounts of DER quickly in its testimony before the California Energy Commission in Oxnard on September 14, 2018.¹⁵ SCE also received recommendations to adopt

incentives), and the fact that a solar panel in California delivers 33% more energy per installed watt because of the better solar resource.

¹⁴ For example, if the first tranche were the required 21MW, a Japanese Reverse Auction would accept all bids meeting standard contract requirement for the auction. Starting at a high price, the price is lowered in each auction round by a fixed amount. In each round, bids commit to taking that price or withdrawing until only 21MW remain. These bids receive that auction price, and the price for subsequent rounds is based on this price. 21MW is the price for all remaining bids. Such a procurement method would guarantee procurement of the minimum required 21MW of capacity at the minimum market price.

¹⁵ Transcript of 09/14/2017 Evidentiary Hearing, Puente Power Project Application for Certification, TN# 221283, Docket 15-AFC-01, pages 236 and following.

a Feed-In Tariff approach for that program as well, but declined to adopt that methodology. Precisely as predicted, the PRP procurement struggled to meet goals and to prevent contract failure.

Furthermore, the public is poorly served by the lack of transparency in an RFO process, because SCE faces an inherent conflict of interest between pursuing a project into which substantial costs have been sunk and procuring renewable resources. The request that the Energy Commission suspend rather than reject the Puente Power Project suggests that SCE and NRG retain an interest in Puente. Thus, allowing SCE to conduct an RFO process that is opaque due to confidentiality concerns creates a situation ripe for substandard implementation.

Where timing, price, transparency, and success are critical, the RFO process is vastly inferior to a market adjusting transparent pricing program like a CLEAN Program.

g. The RFO process is too slow, too cumbersome, and prone to failure.

In sharp contrast to fixed price, fixed contract programs, the RFO process is expensive, slow, and cumbersome and highly prone to failure. For example, a review of the RPS auction shows that fewer than one in ten bids result in executed projects, while the Renewable Auction Mechanism (RAM) has recorded an abysmal success rate of 28 executed bids out of 552 bids (see Figure 1 and 2). Similarly, SCE's Preferred Resources Pilot that SCE has chosen as a model failed to produce a high number of successful bids.

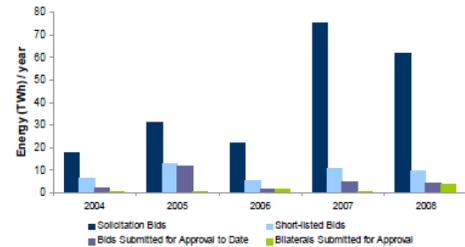
The issues are entirely predictable given the cumbersome administrative process of an RFO for both developers and the utility. Under an RFO, developers prepare detailed and individualized bids without the benefit of transparency of the possible contract price or any certainty of offer acceptance. This elevated risk and customization of proposals reduces the number of bids and increases the price as administrative costs and risk premiums are folded into bids. Furthermore, the process of shortlisting, negotiation, failure, repeated negotiations, offers and then CPUC approval results in unnecessary delays in reaching a higher price and fewer procured resources. The risks for developers, negotiation failures, and delays in an RFO mean that recruitment will be weaker and the prices will be higher.

IV. Conclusion

The Moorpark LCR Plan is of paramount importance in meeting the state's renewable energy goals and has the potential to be a groundbreaking effort in a national example of meeting reliability needs with significant amounts of renewable resources. The importance of such an example cannot be underestimated. The importance of success is even greater given that the alternative gas fired plants are deeply unacceptable to local communities and the people of California.

The Clean Coalition emphasizes that it fundamentally important that the Public Utility Commission take all possible steps to ensure the success of the LCR Plan. This includes steps to streamline the procurement process and steps to ensure adequate bid recruitment. Foremost among these steps would be the implementation of a CLEAN program as either the primary or as a backstop program.

Figure 1 - Fewer than 1 in 10 bids results in an executed contract



Source: California Public Utilities Commission, 2nd Quarter 2009

Figure 2 – RAM has resulted in a high failure rate.



Respectfully submitted,

A handwritten signature in black ink, appearing to read 'DK' followed by a long horizontal stroke.

Doug Karpa, J.D., Ph.D.

Policy Director

Clean Coalition