

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Application of San Diego Gas & Electric
Company (U902E) for Authority to
Implement Optional Pilot Program to
Increase Customer Access to Solar
Generated Electricity.

And Application of Pacific Gas & Electric to
Establish a Green Option Tariff.

Application 12-01-008
(Filed January 17, 2012)

Application 12-04-020
(Filed April 24, 2012)

CLEAN COALITION'S COMMENTS ON PACIFIC GAS & ELECTRIC
COMPANY'S ENHANCED LOCAL COMMUNITY RENEWABLES PROPOSAL

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CLEAN COALITION'S COMMENTS ON PACIFIC GAS & ELECTRIC COMPANY'S ENHANCED LOCAL COMMUNITY RENEWABLES PROPOSAL

The Clean Coalition is a California-based nonprofit organization whose mission is to accelerate the transition to local energy systems through innovative policies and programs that deliver cost-effective renewable energy, strengthen local economies, foster environmental sustainability, and provide energy resilience. The Clean Coalition drives policy innovation to remove barriers to the procurement and interconnection of Wholesale Distributed Generation integrated with Intelligent Grid solutions, such as demand response, energy storage, and advanced inverters. The Clean Coalition also works with utilities to develop demonstration projects that prove that local renewables can provide at least 25% of the total electric energy consumed within the distribution grid, while maintaining or improving grid reliability. The Clean Coalition is active in numerous proceedings before California agencies and other state agencies throughout the United States.

The Clean Coalition appreciates the opportunity that Pacific Gas & Electric (PG&E) gave us to provide informal comments on the Enhanced Local Community Renewables (ELCR) proposal. We support the refinements that PG&E made to the following elements of the program in response to our initial comments: (i) providing customers with different subscription level options, (ii) defining ELCR locational eligibility in terms of 10 miles radius of customer or city/county limits, and (iii) including estimates in each solicitation of new capacity that PG&E intends to procure from specific areas for ELCR.

However, we remain concerned about whether PG&E's ELCR proposal will be sufficiently attractive to customers to meet SB 43's intent of facilitating a "large

sustainable market” for offsite renewable generation.¹ We also remain concerned that the ELCR proposal will not facilitate procurement of sufficient capacity from the most impacted and disadvantaged communities.

The Clean Coalition offers the following specific recommendations to ensure that the proposal complies with the requirements and the intent of SB 43.

- 1) Facilitate other business models to attract participation of both residential and large customers.
- 2) Lower the minimum project size to 200 kW to ensure that projects within urban communities, such as solar projects on multifamily rooftops and parking lots, can participate. This is necessary to ensure that sufficient urban project sites within the most impacted and disadvantaged communities will qualify for participation in the ELCR to fulfill the intent of SB 43.
- 3) Commit to procure at least 1/6 of new GTSR capacity from projects located in the most impacted and disadvantaged communities as part of each solicitation.
- 4) Provide that only new projects will qualify for ELCR.
- 5) Remove the requirement that at least 50% customer interest in an individual local project must be from residential customers.

I. Facilitate other business models to attract participation of both residential and large customers

¹ “It is the intent of the Legislature that a green tariff shared renewables program be implemented in such a manner that facilitates a large, sustainable market for offsite electrical generation from facilities that are eligible renewable energy resources, while fairly compensating electrical corporations for the services they provide, without affecting nonparticipating ratepayers.” Public Utilities Code Chapter 7.6, Section 2831(g)

SB 43 was intended to provide opportunities for both residential and large consumers to access the benefits of onsite renewable generation.² We are especially concerned about whether the ELCR program will be attractive to large institutional and commercial customers, especially in light of the lack of vocal participation of large customers in this proceeding so far.

We are in the process of obtaining input from large customers, and we reserve further comments on this issue for our upcoming reply brief. For example, we are planning a conversation with large customers through BSR (Business for Social Responsibility), who runs the Future of Internet Power Initiative, a group of leading technology companies working to increase the availability of sustainable, low-carbon power for data centers.”³

PG&E designed the ELCR, like the GTSR, to give customers the option to *pay a premium* to purchase renewable energy from a portfolio of projects.⁴ The only difference between the GTSR and the ELCR is that customers will pay a potentially larger premium to purchase energy from local projects rather than a blended portfolio of projects within PG&E service territory. Since the smaller ELCR projects will presumably be removed from the GTSR project, this will

² “The enactment of this chapter will create a mechanism whereby institutional customers, such as military installations, universities, and local governments, as well as commercial customers and groups of individuals, can meet their needs with electrical generation from eligible renewable energy resources.” Public Utilities Code Chapter 7.6, Section 2831(f)

³ For more information about BSR’s Future of Internet Power Initiative, see <http://www.bsr.org/en/our-work/working-groups/future-of-internet-power>

⁴ As we explained in our January 10, 2014 testimony in this proceeding, the 20-year levelized cost of energy (LCOE) delivered to load from 500 kW commercial scale distributed solar photovoltaic systems (PV) is at parity with the LCOE of new combined cycle natural gas (CCNG) facilities when transmission access charges are included, based upon the adopted California Energy Commission Cost of Generation model for systems commencing delivery to the area in 2015. However, program participants will likely need to pay a premium due to the administrative costs of the program and the likelihood that the program will procure energy ahead of needs for new generation to either meet local reliability needs or comply with state policies.

likely reduce the cost of participating in the general GTSR project, resulting in an even larger differential between the cost of participating in GTSR and participating in the ELCR.

We recommend that PG&E allow other business models to flourish through the ELCR. We urge PG&E to adopt the Share the Sun approach, which will allow developers and customers to have direct relationships that facilitate different business models. For example, Clean Energy Collective has informed us that Share the Sun will facilitate their business model, which gives customers opportunities to *invest* in solar projects and receive a return on investment in addition to receiving bill credits for solar energy.⁵

We also share concerns with other parties, such as Vote Solar, that the current program does not give developers a significant incentive to secure subscribers. We are concerned that without developer marketing efforts, large customers will be less likely to recognize the goodwill value of paying a premium to subscribe to ELCR projects, especially those in the most impacted and disadvantaged communities.

II. Lower Minimum Project Size to 200 kW

Along with the California Environmental Justice Alliance and the Sustainable Economies Law Center, the Clean Coalition recommends lowering the eligible minimum project size to 200 kW so that most multifamily residential rooftops, commercial rooftops, and parking lots will qualify. This is necessary to ensure

⁵ For details of the Clean Energy Collective business model, see National Renewable Energy Laboratory, *A Guide to Community Shared Solar: Utility, Private, and Nonprofit Project Development*, May 2012.

that sufficient urban project sites within the most impacted and disadvantaged communities will qualify for participation in the ELCR to fulfill legislative intent.

SB 43 specifically only permits projects 1 MW and smaller to meet the 100 MW carve-out for projects in the most impacted and disadvantaged communities. This restriction is evidence that the legislature intended for the carve-out to result in rooftop and parking lot projects within urban communities.

The Clean Coalition's analysis of solar potential of the Bayview-Hunters Point area of San Francisco found that the best multifamily rooftops had an average of 250 kW of solar potential and the best parking lots had an average of 350 kW of solar potential. See the Appendix for details about the Clean Coalition's analysis of Bayview-Hunters Point solar potential.

In Exhibit PG&E-05, PG&E states that it cannot lower the minimum eligible size below 0.5 MW because that is the California Independent System Operator's (CAISO) minimum allowed size for receiving a generator resource identification and that, below this level, PG&E would not be able to schedule delivery of the energy with the CAISO.⁶

Our understanding is that PG&E only wants to procure projects that will contribute to resource adequacy, and therefore reduce the need for more gas-fired generation or transmission investments. However, it is not necessary for an ELCR project to schedule delivery with CAISO to contribute to resource adequacy. Distributed resources, such as net metered solar, currently contribute to resource adequacy by reducing peak load needs. Similarly, ELCR projects under 0.5 MW can contribute to resource adequacy without scheduling delivery with CAISO.

⁶ See Exhibit PG&E-05 - PG&E Green Option Program, Enhanced Community Renewables Program (hereinafter "Exhibit PG&E-05"), at 5.

We understand that currently the ISO tariff has no provisions for direct market participation by resources smaller than 500 kW. However, the ISO is intending to develop the needed provisions in the course of the Reliability Services Initiative (RSI), which is currently in progress, so that such resources can provide RA starting in the 2016 RA compliance year. In addition, Molly Hoyt of PG&E informed us by email on March 5, 2014, that PG&E supports aggregation of smaller distributed generation projects on a single CAISO pricing node, and that this issue is currently being addressed through a CAISO stakeholder process.⁷ Since most ELCR projects within a community will generally serve the same CAISO pricing node, this change to CAISO policy would address any remaining concerns of PG&E.

III. Commit to procure at least 1/6 of new GTSR capacity from projects located in the most impacted and disadvantaged communities as part of each solicitation

We support the recommendations of the California Environmental Justice Alliance and the Sustainable Economies Law Center that PG&E should commit to procure at least 1/6 of new capacity from eligible projects located in the most impacted and disadvantaged communities as part of each solicitation.

⁷ Email from Molly Hoyt on March 5, 2014 in response to a question by the Clean Coalition. "Aggregation of smaller project generation is an issue that is supported by PG&E and is just now being addressed, through a stakeholder process, by the CAISO. PG&E's understanding of the CAISO's current aggregation criteria is that aggregation is only allowed for generators that are all delivering to the same CAISO pricing node, and can demonstrate a single ownership of the facilities being aggregated. If this criteria is met, and the facilities can obtain a CAISO resource ID, which will entail executing certain generator and metering agreements with the CAISO, then the aggregate resource ID can be scheduled, and the metered deliveries recognized by the CAISO."

IV. Procure capacity for ELCR program from new eligible renewable resources

We recommend that PG&E procure capacity for ELCR from new eligible renewable resources. We support the comments and recommendations of the Sustainable Economies Law Center that PG&E make no more than 20 percent of the existing general GTSR pool of projects available for subscription in the ELCR program. Since PG&E's resource criteria is undefined, SELC requests that PG&E inform the parties in this proceeding how many ELCR eligible projects are in its existing GTSR pool of projects.

V. Remove the requirement that at least 50% customer interest in an individual local project must be from residential customers

We recommend that PG&E remove the requirement that a persuasive showing of local customer commitments for purposes of bid selection must include a minimum level of 50% residential load.⁸ We expect that the availability of local projects will increase local residential customer participation. Requiring that local residential customer interest exist before local projects are available would unnecessarily restrict the growth of the ELCR program.

We recommend that PG&E instead give extra weight to project proposals that include local crowd-funding or local community ownership.⁹ This would

⁸ Projects will be selected based on bid price as well as other criteria (including local customer commitments, with a minimum level of 50% residential load). PG&E-05, Section 4.

⁹ For a summary of the crowd-funding business model, see National Renewable Energy Laboratory, *A Guide to Community Shared Solar: Utility, Private, and Nonprofit Project Development*, May 2012, at 45.

encourage projects that increase local residential participation in ELCR benefits rather than requiring existing local residential interest.

For the foregoing reasons, the Clean Coalition respectfully requests that the Commission adopt the above recommendations.

Respectfully submitted,

A handwritten signature in black ink that reads "Stephanie Wang". The signature is written in a cursive, flowing style.

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Dated: March 7th, 2014

APPENDIX

Clean Coalition’s Assessment of Solar Photovoltaic Potential of Bayview-Hunters Point Substation

Type: New PV	Total Capacity (MW)	Total Output (annual MWh)
Commercial (incl. MDUs)	16.0	17,333
Residential	13.5	28,275
Parking Lots	2.6	4,102
Redev Zone	20.5	32,146
Total New PV	52.1 MW	81,856
Existing DG	8.5	13,338
Total DG Potential:	60.6	95,194

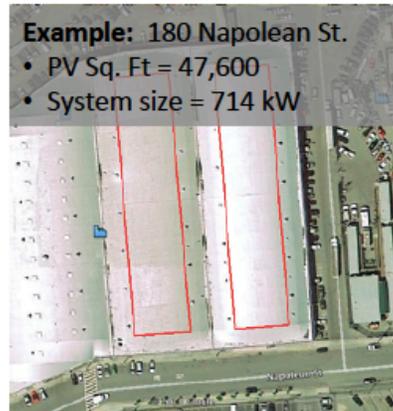
Potential PV: Commercial Rooftops

Highlights:

- Number of visually-sited highest value “A” sites = **34**
 - Total PV-potential rooftop square feet = **1.4M**
 - Total participating sq. ft. @ 50% = **736K**
- Generation potential, participating rooftops = **11 MW + 5 MW (MDUs) = 16 MW**

Hunters Point Rooftops - Commercial

<u>Assumptions</u>	
Watts/sq. ft.	15
PV hrs./yr.	1570
Participation Factor	50%
<u>Results</u>	
Total Sq. Ft.	1,472,000
Total Sq. Ft. Participating	736,000
Total Watts Participating	11,040,000
Total PV in MW	11.0
Total PV in Annual MWhr	17,333
Average kW per site	649



Potential PV: Parking Lots

Highlights:

- Number of visually-sited highest value "A" sites = **13**
- Total PV-potential parking lot square feet = **348K**
 - Total participating sq. ft. @ 50% = **174K**
- Generation potential, participating parking lots = **2.6 MW**

Hunters Point Parking Lots

<u>Assumptions</u>	
Watts/sq. ft.	15
PV hrs./yr.	1,570
Participation Factor	50%
 <u>Results</u>	
Total Sq. Ft.	348,400
Total Sq. Ft Participating	174,200
Total Watts Participating	2,613,000
Total PV in MW	2.6
Total PV in Annual MWh	4,102
Average kW per site	402



Potential PV: Residential Rooftops

Highlights:

- Total residential sites = 14,000
- Average PV-viable square feet per residence (from 50 sites) = **257**
 - Total PV-potential residential square feet = **3.6M**
 - Total participating sq. ft. @ 25% = **900K**
- Generation potential, participating rooftops = **13.5 MW**

Hunters Point Rooftops - Residential

<u>Assumptions</u>	
Watts/sq. ft.	15
PV hrs./yr.	1570
Participation Factor	25%
 <u>Results</u>	
Total HH	14,000
Average PV-viable sq. ft. per HH	257
Total PV-viable Sq. Ft.	3,601,920
Total PV-viable Sq. Ft. Participating	900,480
Total PV in Watts	13,507,200
Total PV in MW	13.5
Total PV in Annual MWh	21,206
Average PV system size per HH, kW	4

