

Options for Local Renewable Energy Projects: near term opportunities and challenges

Developing local renewable energy is one of the most important priorities for East Bay Community Energy (EBCE), but doing so in a cost-effective manner, particularly during the initial years after launch will be a challenge. With this in mind, I have engaged our technical experts and renewable energy community to consider a set of novel rate options that would allow individual cities and the county to opt-up to a 100% local renewable rate that would carry some price premium but could deliver a near term proof point of how the quickly develop local, renewable energy while preserving maximum flexibility for a start-up CCA.

Why Can't EBCE Just Contract with These Local Renewables Itself?

One of the primary issues facing EBCE as it considers local renewable energy options is the considerable price premium that comes along renewables located in Alameda County.

Figure 1

2016 Average Price for New Solar in CA ¹	Cost of Utility Scale Solar in Alameda County (20 MW) ²	Cost of Utility Scale Wind in Alameda County (55 MW) ³	Cost of Distributed Solar in Alameda County (20 MW) ⁴
\$38/MWh	\$52/MWh	\$70/MWh	\$85/MWh

While any single local renewable energy project would likely represent a small portion of EBCEs overall energy supply mix, the inclusion even a relatively small amount of high cost energy could create challenges as EBCE gears up to launch with pricing that is lower than PG&E.

Figure 2⁵

Exp. Avg. Cost of Renewables (EBCE Implementation Plan)	Exp. Avg. Cost of Renewables (if large scale AC solar and wind procured)	Exp. Avg. Cost of Renewables (if large scale AC solar and wind procured and rooftop solar procured)
\$43.60/MWh	\$35.50/MWh	\$34.4/MWh

Figure 2 above illustrates that even modest procurement of higher cost renewables would make it very challenging for EBCE to be able to meet the target price expected to be necessary to beat PG&E rates. This analysis also raises questions about whether EBCE would have any

¹ Reported PPA price for 155 MW solar project in Kern County with LA Dept of Water and Power

² Indicative pricing for Alameda County 20 MW solar project

³ Indicative pricing for Alameda County 55 MW wind project

⁴ Estimated pricing for 20 1 MW rooftop/ground mount solar projects

⁵ Source: EES analyzed how the inclusion of local solar and wind would impact EBCEs overall energy pricing during the first year of operations.

residual capacity for other local energy procurement if it started out procuring higher cost, local renewables.

The risk to EBCE of signing high cost renewables contracts during the first few years of operation is further magnified by uncertainty surrounding the Power Charge Indifference Adjustment (PCIA) which is currently in the range of \$0.025 – \$0.022 per MRW’s assessment⁶. This quantity could end up being higher if the California Public Utilities Commission or the California Legislature were to adopt a formula similar to the Utility proposed Portfolio Adjustment Mechanism (PAM). Given that MRW found that the expected differential between EBCEs energy costs and PGEs rates was 10% or less, a modest increase in the PCIA could create considerable risk for EBCE⁷.

In light of these risk factors, it is my view that EBCE should avoid pursuing any one-off energy procurement until we have done a full assessment of energy market conditions and are unable to understand the way any given contract will impact our overall power costs. That being said, I do believe there are alternative options to pursue the procurement of local renewable energy in the very near term without triggering the above risk factors. The following is an overview of an opportunity for local governments in EBCE to take a step to enable the build out of local renewables while supporting EBCE’s ability to deliver a mainstream energy product that is greener and cheaper than PG&E.

Local Renewables and Local Government Opportunity Overview

As a starting point, I asked our technical consultant, EES, to evaluate how pairing some quantity of municipal electricity usage (electricity used by our cities and the county) specifically with the output of a solar and/or wind project in Alameda County would impact their bill relative to their current PG&E costs. The idea being that EBCE could sign a contract with one or both of a large solar and wind project located in Alameda County and then allocate the costs and benefits of the electricity directly to these municipal accounts. Practically speaking, EBCE would create a distinct ‘100% Local Renewables’ rate category that customers would opt up into understanding that they would be paying some premium and in return would be sourcing their energy from new renewables built in Alameda County. One of the requirements of this rate would be that the customers opting up would be required to stay on the rate for 10-20 years, much like building owners do when they install rooftop solar or when large customers like Kaiser sign power purchase agreements with large scale wind and solar.

The next step in evaluating this opportunity was to meet with two renewables developers with active, mature projects in Alameda County – Salka Energy and Clenera. Salka is developing 55 MWs of wind in the Altamont Pass while Clenera is developing 20 MWs of solar in the east Alameda County. Both developers provided me with project term sheets, including proposed pricing. With this pricing, I asked to EES to evaluate the range of expected rate impacts relative

⁶ EBCE Technical Study

⁷ EBCE Technical Study, p. 24

to current PG&E costs. EES' initial analysis found that the premium for these local projects ranged from 5% to 11% in the first year, with the premium declining over time as PG&E rate increases while these customers rates remain flat due to fact that they locked in renewables.

Figure 3

Total CCA Bill, % change	2018	2019	2020	2021
Solar+Wind	8.1%	5.2%	5.0%	4.8%
Wind Only	11.1%	8.4%	8.4%	8.5%
Solar Only	5.1%	2.0%	1.6%	1.2%

While all three scenarios suggest that the municipal accounts that opt-up would face increased costs initially, both the wind and solar projects carry with them external benefits to Alameda County that local government are uniquely positioned to realize.

Clenera Solar: for the Clenera solar project, one of the key technology vendors is NexTracker, the Fremont California based solar tracking company that has become the leading manufacturer of trackers in the world. Through NextTracker, the project will integrate energy storage from Avalon Battery, an Oakland based storage company that manufactures they batteries in San Leandro. In addition to participation of these two key Alameda County vendors, Clenera has committed to a project labor agreement with at least 75% of construction jobs going to Alameda County residents.

Salka Wind: Salka's Summit wind project has a committed project labor agreement with an Alameda County based construction firm. I am awaiting further details on other specific aspects of their plan to hire locally.

Both projects are in the late stages of project development and have the potential to be built and generating energy in 2018, but both projects require fairly quick commitments to be able to proceed.

Proposed Next Steps

As a starting point, I would like to determine if there are any cities that would be interested in more thorough review of this opportunity, including matching specific municipal loads to the output of either (or both) of these projects. To give a sense of scale, the Clenera solar project would require 20%-25% of identified municipal load to opt up (which is likely quite a bit less than total municipal as a result of challenges we are having working with PG&E to identify which accounts belong to cities and the county). For the Salka wind project, we would need close to 100% of identified municipal load (again this is likely much less than the actual total) to opt up to proceed with this project.

So here is my ask of you, EBCE Board Members:

- 1) Let me know if you think your city (or the county in the case of Supervisor Haggerty) would be willing to consider a 'premium' opt-up rate for new, local renewable energy.
- 2) If you think there is interest, please connect me with the right person in your city who can review the opportunity

I am happy to discussion this opportunity in more specificity with any of you individually.