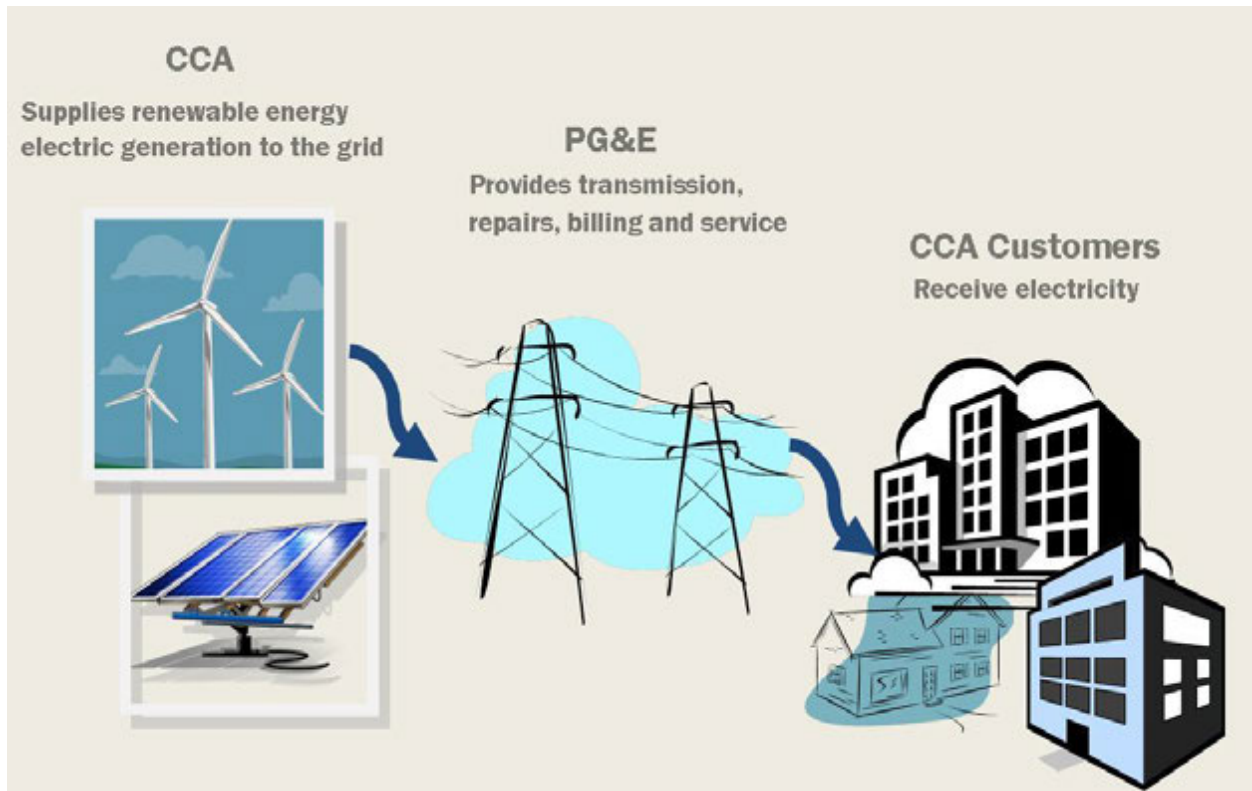


Community Choice Aggregation Overview

INTRODUCTION TO CCA

Signed into law in 2002, Assembly Bill 117, also known as Community Choice Aggregation (CCA), enables California cities, counties, cities and counties that form a joint powers authority, to provide electricity to customers within their jurisdiction(s). Unlike a municipal utility, such as City of Palo Alto Utilities or Sacramento Municipal Utility District, the CCA administrator is responsible for choosing the source of the power supplied to CCA customers, but does not deliver that power to customers. Instead, the investor-owned utility, e.g. PG&E, is required to deliver the power to CCA customers over their transmission and distribution lines, charging CCA customers for this service. The investor-owned utility must provide the same delivery rates for all customers in their service territory whether or not they receive electricity from a CCA or another third party energy service provider, and income-qualified customers are still entitled to discount programs, such as CARE. Under AB 117, the investor-owned utility is also required to provide metering, billing and collection services to CCA customers.



A report prepared for the California Energy Commission lists the following potential benefits of CCA¹:

- Customer choice in selecting or influencing the selection of energy resources serving the community.
- Local accountability for selection of energy resources, rate- setting, and administration of the CCA.
- Reduced energy costs through the negotiation of energy prices below those offered by investor-owned utilities, or from CCA-owned or financed generation.
- Increased price stability through a diversified energy supply portfolio, which includes long-term power purchase agreements and ownership of low-cost generating resources.
- Affordable renewable energy through economies of scale achieved by aggregating customer load and using public financing.
- Environmental benefits related to the procurement of energy from renewable and/or low-emission resources.
- Ability to wheel electricity, that is, to generate it in one location and use it in another.
- Energy security through the selection of reliable energy suppliers and/or construction of reliable generating resources.
- Opportunities to influence and implement effective energy efficiency and demand side management programs within the community.

The local government agency or group of agencies that want to establish a CCA, must do so by ordinance. They then submit an Implementation Plan to the California Public Utilities Commission (CPUC). CCA programs must offer service to residential customers and may also choose to include commercial and industrial customers. In either case, customers must be offered the chance to opt-out of the program.

It is the responsibility of the CCA administrator to determine the amount of electricity needed to meet its customers' demands; choose the source of the electricity; procure the electricity; schedule delivery of the electricity; and determine the rate charged to CCA customers. A complex analysis is completed to determine if a CCA program is feasible within a community and whether rates would be comparable to or lower than the existing and forecasted rates under the investor-owned utility.

A CCA program can meet its customers' demands with electricity from both renewable and non-renewable sources and through different means, including power purchase agreements and asset acquisition. The CCA administrator must determine where the power will be produced and at what scale. Renewable energy can come from local distributed renewable energy or from electricity produced elsewhere and sold to the CCA administrator through a power purchase agreement (PPA). In the case of a PPA, the administrator would purchase Renewable Energy Credits (RECs) that are "bundled" with the

¹ Stoner, G. Patrick, John Dalessi, 2009. California Community Choice Aggregation Guide. California Energy Commission, PIER Renewable Energy Technologies Program. CEC-500-2009-003.

underlying energy. To meet renewable energy targets, the administrator can also purchase “unbundled” RECs, which are sold separately from the energy itself on a trading market.

CASE STUDIES

Community Choice Aggregation has already been approved by the CPUC in Marin County (Marin Clean Energy), Sonoma County (Sonoma Clean Power) and San Francisco (CleanPowerSF), though CleanPowerSF is not yet in operations. In addition, several East Bay jurisdictions, and East Bay Municipal Utility District have explored CCA.

Marin Clean Energy

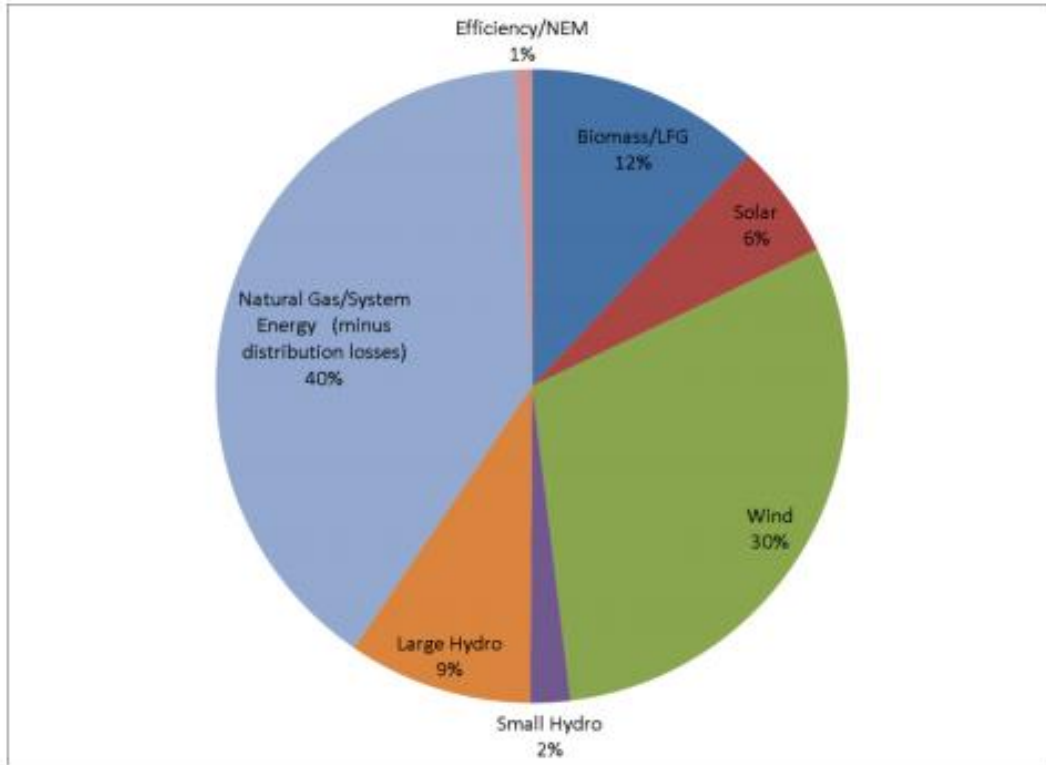
Marin Energy Authority (MEA), a nonprofit joint powers authority, was established in 2008 to administer Marin Clean Energy (MCE), California’s first CCA. MCE, which provides power to customers throughout Marin County, was launched in May 2010 and the City of Richmond joined MCE on July 1, 2013. MCE is funded by revenue it receives from customers based on electricity consumption and the cities and counties that participate in the program have protected their general funds through the formation of the joint powers authority.

MCE currently serves approximately 125,000 customers, providing electricity to 77% of the customer base in its territory.² There are two different programs offered to both residential and commercial customers - one that offers 50% renewable energy; the other 100% renewables.

As of November 2013, MEA managed a portfolio of fifteen energy contracts with ten different energy suppliers. Energy comes from a mix of renewable and non-renewable sources. MEA’s agreements include: Shell Energy North America; Genpower LLC; G2 Energy LLC; Cottonwood Solar LLC; RE Kansas LLC; Rio Solar 1; US Western Area Power Administration; Calpine Energy Services; San Rafael Airport; OneEnergy, Inc.; Middlefork Irrigation District; and 3 Degrees Group, Inc. The chart below shows the current mix of resources attributable to the program in 2013.

² Marin Clean Energy, “Marin Clean Energy: Green Power Community Choices” presentation. http://www.marinenergyauthority.com/sites/default/files/key-documents/MCEGeneralPresentation1.15.14_0.pdf

Marin Clean Energy 2013 Resource Mix (Estimated)



Source: MCE Integrated Resource Plan Annual Update, November 2013.
https://mcecleanenergy.com/sites/default/files/PDF/2013_Integrated_Resource_Plan.pdf

MCE’s renewable energy requirements comes from various sources including Renewable Energy Credits that are “bundled” with the underlying energy (through power purchase agreements) and “unbundled,” meaning sold separately from the energy itself on a trading market. MCE also meets its renewable energy requirements through a feed-in tariff for projects located in member territories as well as a net energy metering program for MCE customers, both of which promote customer-sited distributed generation. As of November 2013, there were 2,430 customers subscribing to MCE’s net energy metering program, representing approximately 20.1 MW of local renewable generation.

Rates for MCE’s customers are competitive with PG&E. Those paying basic residential rates on the E-1/RES-1 schedule, and MCE’s commercial customers on the A-1/COM-1 (Winter) schedule are as follows:

Marin Clean Energy Residential Electric Fees (E-1 / RES-1 Rate)*			
	PG&E (20% Renewable)	MCE Light Green (50% Renewable)	MCE Deep Green (100% Renewable)
Electric Generation Cost	\$43.95	\$37.59	\$42.67
PG&E Electric Delivery Cost	\$32.21	\$32.21	\$32.21
Additional PG&E Fees	\$0	\$5.89	\$5.89
Total Cost	\$76.16	\$75.70	\$80.78

*Rates are current as of January 1, 2014, however MCE recently proposed a 7% rate increase for all customers, to be implemented in April 2014.

The above table compares electricity costs for a typical residential customer in the MCE/PG&E service area (Marin County and Richmond) with an average monthly usage of 508 kilowatt-hours (kWh). This is based on the recent 12-month billing history for all customers on E-1 / RES-1 rate schedules for PG&E's and MCE's published rates as of January 1, 2014.

Marin Clean Energy Commercial Electric Fees (A-1/COM-1 (Winter) Rate) *			
	PG&E (20% Renewable)	MCE Light Green (50% Renewable)	MCE Deep Green (100% Renewable)
Electric Generation Cost	\$84.32	\$69.74	\$81.56
PG&E Electric Delivery Cost	\$103.33	\$103.33	\$103.33
Additional PG&E Fees	\$0	\$12.14	\$12.14
Total Cost	\$187.65	\$185.20	\$197.02

*Rates are current as of January 1, 2014, however MCE recently proposed a 7% rate increase for all customers, to be implemented in April 2014.

The above table compares electricity costs for a typical commercial customer in the MCE/PG&E service area (Marin County and Richmond) with an average monthly usage of 1,182 kilowatt-hours (kWh). This is based on the recent 12-month billing history for all customers on A-1 / COM-1 (Winter) rate schedules for PG&E's and MCE's published rates as of January 1, 2014.

During the 2012-13 fiscal year, MCE's revenues exceeded expenses by approximately \$3,995,000.³ The program continues to consider expansion - in December 2013, the County of Napa and City of Albany requested that MCE conduct an analysis to determine the feasibility of joining the program.

Sonoma Clean Power

The Sonoma County Water Agency established Sonoma Clean Power (SCP), a nonprofit joint powers authority, in 2012 and it will begin delivering power to select customers in May 2014. Currently, SCP includes all of unincorporated Sonoma County, the Cities of Cotati, Santa Rosa, Sebastopol, Sonoma, and

³ Marin Energy Authority Financial Statements. Years Ended March 31, 2013 and 2012 with Report of Independent Auditors. <http://www.marinenergyauthority.com/sites/default/files/key-documents/MEA%20Audited%20Financial%20Statements%202013%20%202012.pdf>

the Town of Windsor. SCP offers two programs: CleanStart, which provides 33% renewable service; and EverGreen, which provides 100% renewable power. The organization holds contracts with Constellation, an Exelon subsidiary,⁴ and Calpine Energy Service, L.P., which operates a geothermal field on the Sonoma-Lake County border.⁵

Rates for SCP’s customers paying basic residential rates on the E-1/RES-1 schedule, and SCP’s commercial customers on the A-1/COM-1 (Summer) schedule are as follows:

Sonoma Clean Power Residential Electric Fees (E-1 / RES-1 Rate)*			
	PG&E (20% Renewable)	SCP CleanStart (33% Renewable)	SCP EverGreen (100% Renewable)
Electric Generation Cost	\$43.26	\$35.50	\$53.00
PG&E Electric Delivery Cost	\$63.42	\$63.42	\$63.42
Additional PG&E Fees	\$0	\$5.80	\$5.80
Total Cost	\$106.68	\$104.72	\$122.22
*Rates effective January 9, 2014. SCP will commence delivery of power in three phases in May 2014, with later phases added in 2015. This compares electricity costs for a typical residential customer in the SCP/PG&E service area with an average monthly usage of 500 kilowatt-hours (kWh) for customers on E-1 / RES-1 rate schedules for PG&E’s and SCP’s published rates as of January 9, 2014.			

Sonoma Clean Power Commercial Electric Fees (A-1 / COM-1 (Summer) Rate)*			
	PG&E (20% Renewable)	SCP CleanStart (33% Renewable)	SCP EverGreen (100% Renewable)
Electric Generation Cost	\$165.23	\$141.00	\$193.50
PG&E Electric Delivery Cost	\$170.55	\$170.55	\$170.55
Additional PG&E Fees	\$0	\$15.41	\$15.41
Total Cost	\$335.77	\$326.95	\$379.45
*Rates effective January 9, 2014. SCP will commence delivery of power in three phases in May 2014, with later phases added in 2015. This compares electricity costs for a typical commercial customer in the SCP/PG&E service area with an average monthly usage of 1,500 kilowatt-hours (kWh) for customers on A-1 / COM-1 (Summer) rate schedules for PG&E’s and SCP’s published rates as of January 9, 2014.			

CleanPowerSF

CleanPowerSF was previously approved by the CPUC and the San Francisco Board of Supervisors approved a \$19.5 million contract with Shell Energy North America to provide electricity to the program

⁴ Sonoma Clean Power Press Release. November 19, 2013. <https://sonomacleanpower.org/wp-content/uploads/2014/02/SCP-Signs-First-Power-Contract-Nov-19-2013.pdf>

⁵ Sonoma Clean Power Staff Report. November 18, 2013. <http://2tgc4v3kjp5mrjtdo183d8716ao.wpengine.netdna-cdn.com/wp-content/uploads/2014/01/SCPA-Business-Operations-Committee-Packet-11-18-2013.pdf>

in the fall of 2012. In 2013, however, the San Francisco Public Utilities Commission Board rejected the plan for failing to set a maximum rate for customers, which is required to commence the program. CleanPowerSF's attempts at balancing the competing priorities of a CCA program – the rate of electricity compared to PG&E, the source of energy, the use of bundled vs unbundled RECs, and location of the generation facilities - has left the program at an impasse.⁶ To date, CleanPowerSF is not operational.

Exploration of CCA by East Bay Jurisdictions and East Bay Municipal Utility District

In 2005, a study commissioned by the CEC and the United States Department of Energy evaluated the feasibility of forming a CCA program for the cities of Berkeley, Emeryville, Oakland, Pleasanton, Richmond, Vallejo, and Marin County. The cities of Oakland, Berkeley, and Emeryville then decided to jointly develop a comprehensive business plan to determine whether the cities should establish a CCA program.⁷ After consideration of the findings from the business plan, which was completed in 2008, the cities identified too many financial and legal risks to consider moving forward with a CCA program.

In 2012, the Cities of Berkeley, Oakland, Emeryville and Albany sent letters to East Bay MUD requesting the District's assistance in conducting an analysis of forming a CCA in the East Bay.⁸ The *East Bay Community Choice Aggregation Preliminary Analysis* report includes an overview of issues such as cost competitiveness, reliability, environmental sensitivity, and local control. The report includes a financial analysis concluding that the estimated start-up costs for serving the cities of Albany, Emeryville, Berkeley, and Oakland range from \$1.6 to \$3.2 million in addition to \$12 to \$22 million in working capital.

After consideration of the CCA Analysis, in December 2012, the East Bay MUD Board concluded that a regional CCA partnership should be led and funded by the cities, rather than the District.

⁶ Lagos, Marisa and David R. Baker. "CleanPowerSF Remains Mired in Politics." San Francisco Chronicle, November 12, 2013. <http://www.sfgate.com/science/article/CleanPowerSF-remains-mired-in-politics-4975691.php#page-2>

⁷ De Snoo, Neal. Staff Report to City of Berkeley Energy Commission. October 22, 2008. http://www.ci.berkeley.ca.us/uploadedFiles/Planning_and_Development/Level_3_-_Energy_and_Sustainable_Development/CCA%20Energy%20CommissionOct08.pdf

⁸ East Bay Municipal Utility District. "East Bay Community Choice Aggregation Preliminary Analysis." December 6, 2012: http://www.ebmud.com/sites/default/files/12112_staff_reports.pdf

February 2014

For Additional Information on CCA:

Community Choice Aggregation Factsheet published by Local Government Commission:

http://www.lgc.org/cca/docs/cca_energy_factsheet.pdf

Community Choice Aggregation Pilot Project Appendix G Guidebook Prepared for the California Energy Commission (September 2009): <http://www.energy.ca.gov/2009publications/CEC-500-2009-003/CEC-500-2009-003.PDF>

East Bay Municipal Utility District. "East Bay Community Choice Aggregation Preliminary Analysis." December 6, 2012:

http://www.ebmud.com/sites/default/files/12112_staff_reports.pdf

Community Choice Aggregation Base Case Feasibility Evaluation prepared for the City of Berkeley (April 2005): http://www.ci.berkeley.ca.us/uploadedFiles/Planning_and_Development/Level_3_-_Energy_and_Sustainable_Development/Base%20Case%20Feasibility%20Evaluation,%20Berkeley.pdf

Marin Energy Authority Revised Community Choice Aggregation Implementation Plan and Statement of Intent (October 2012):

http://www.marinenergyauthority.com/PDF/Implementation_Plan_w-Resolution_&_JPA_Revised_1.22.13.pdf

Sonoma Clean Power Fact Sheet:

http://www.sonomacleanpower.org/files/managed/Document/75/%3DSCP_Flyer%208.5x11_final%207.23.13.pdf

Update to Berkeley City Council on CCA activity in Other Jurisdictions:

http://www.ci.berkeley.ca.us/uploadedFiles/Planning_and_Development/Level_3_-_Energy_and_Sustainable_Development/CCAUpdateMemoforCouncilrev.pdf

Report on the Feasibility of Community Choice Aggregation in Sonoma County (October 2011):

<http://www.scwa.ca.gov/files/docs/carbon-free-water/cca/CCA%20Feasibility%20Report%20101211.pdf>

Article on delay in CleanPowerSF (November 2013):

<http://www.sfgate.com/science/article/CleanPowerSF-remains-mired-in-politics-4975691.php>

Article on City of Richmond joining Marin Clean Energy: <http://berc.berkeley.edu/richmond-joins-marin-clean-energy-paving-way-for-community-choice-aggregation-in-california/>