



Integrated Resources Network

How will CCEs evolve, and will there be effective collaboration between CCEs and grid owners and operators? The answer to this question will determine how quickly California can shift from reliance on slowly evolving utility supply portfolios to new, locally sourced supply portfolios consistent with faster and more locally integrated climate action.

Community Choice Energy

In 2015, Davis, California decided to offer electricity supply choice, aka [community choice energy](#), to its residents and businesses. The question was how best to do it. A [consultant study](#) showed that collaboration between Davis and Yolo County would achieve the best result. Both jurisdictions approved the approach in March, with a target for initial service starting in May/June 2016.

A CCE's right to purchase electricity on behalf of the communities it serves also creates unprecedented opportunities for more rational, cost-effective solar and other decentralized energy deployment and economic optimization. For example, rooftop solar is economically viable in Davis. 25% of Davis' single family homeowners already have opted for it in spite of rules that lead to smaller and therefore economically sub-optimal rooftop systems.

Under these net energy metering rules, rooftop systems may not be sized to produce more than the recent annual historical electricity usage of the home under the roof. Any ["net positive energy"](#) produced annually as a result of efficiency investments is credited by the local grid owner at less than half its actual market value, thus reinforcing downward pressure on system size.

Among the consequences, as climate conscious home-owners with rooftop solar arrays invest in heating systems and vehicles that substitute electricity for natural gas and petroleum, they effectively increase share of their electricity use powered by grid electricity and decrease the share powered by solar.



Visualization of recently announced solar micro-grid for the port of Los Angeles http://www.pv-magazine.com/news/details/beitrag/port-of-los-angeles-unveils-27-million-solarstorage-microgrid-project_100025584/#axzz4Fp3MhXOu

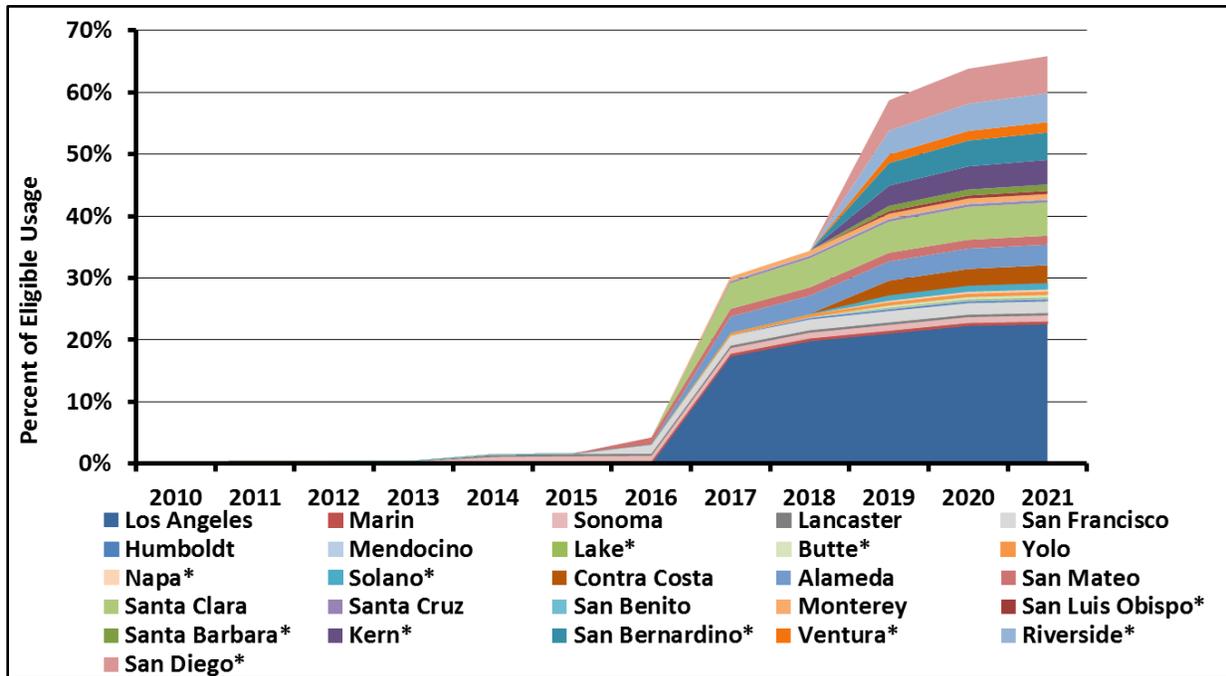
CCEs in California are solving this problem by paying market-based prices for solar electricity produced “behind the meter” to the extent of any production that exceeds annual usage. Longer term, exercising their right to purchase electricity, they can serve as partners in the development of solar micro-grids that enable local ownership of energy infrastructure and local use of the electricity they produce.

The emergence of CCE service is an historic break-through. It makes local climate action possible. As an example, for years, Davis, its elected representatives and its solar project owners and developers worked to get state legislation passed that would allocate a small share of electricity purchases by state regulated utilities for climate friendly community solar programs.

The law that eventually passed didn’t actually require local production for local use as originally envisioned its advocates. Utility implementation plan were offered that called for solar customers to pay so called “green tariffs” for solar power produced in projects that could be located anywhere in the utilities’ service territories.

Related tariffs were proposed that would include costs of small privately financed projects, plus the utility’s costs of owning and operating the regional grid, plus “exit fees” described below that essentially penalize electricity customers for choosing not to use comparable amounts of electricity being purchased by the utility through existing contracts.

The Climate Protection Campaign's April, 2016 [Business of Local Energy Conference](#) highlighted an on-going sea change in the rate of CCE exploration and formation in California.



Source: Ezra Beeman, Energeia

The chart above shows that the CCE share of California electricity supply is still small but could increase dramatically by 2021. CCE formation processes are underway all across California.

How will CCEs evolve, and will there be effective collaboration between CCEs and grid owners and operators? The answer to this question will determine how quickly California can shift from reliance on slowly evolving utility supply portfolios to new, locally sourced supply portfolios consistent with faster and more locally integrated climate action.

How will CCEs evolve, and will there be effective collaboration between CCEs and grid owners and operators? The answer to this question will determine how quickly California can shift from reliance on slowly evolving utility supply portfolios to new, locally sourced supply portfolios consistent with faster and more locally integrated climate action.