

CCA Summit in Sacramento, January 21-13, 1000
Report to the CCA Subcommittee of the Ulster County Climate Smart Committee
By Susan H. Gillespie

A very diverse group of CCAs attended this second “summit” meeting of CCAs in Sacramento, California, sponsored by Infocast. Sacramento’s municipal utility, [SMUD](#), was also there and is impressive; it was founded in 1940. Other participants included developers, data experts, funders, and the executive director of LEAN, which advises CCAs and whom I had breakfast with. The following report contains my observations on CCA structure, values, projects, and financing. I made contact with a large number of people and there are abundant possibilities for follow-up.

California CCAs play a very powerful role in that state’s energy transition. They are diverse, well-resourced, and innovative, and make good use of their rate-setting power. Some CCAs are very large, others smaller; most seem to include both large cities and smaller ones. CCAs are a rather recent phenomenon, having emerged only in 2010 (Marin), but they already include most of the state’s large cities and coastal areas; rural and more remote communities are less well represented. (Lancaster—see below—is an exception.)

It should be noted that the structure of California’s energy market differs from New York’s, a fact that has no doubt contributed to the CCAs’ quick expansion and powerful position there. California CCAs are “load-serving entities,” like our ESCOs. Under the oversight of the California Public Utility Commission (CPUC), they can invest in generation, battery storage, microgrids, and other distributed energy resources both in front of and behind the meter. They must also provide what we call capacity and they call Resource Adequacy. This is proving to be a challenge because the industry is rapidly changing and the regulatory situation is quite volatile in CA, as it is in NY. California CCAs have a further advantage due to the fact that California utilities are able to sign long-term Power Purchase Agreements (PPAs), which makes their prices more predictable and thus enables CCAs to maximize resources while remaining competitive with the utilities. CCAs can also sign Power Purchase Agreements (PPAs) and/or invest their own or borrowed funds in a broad range of projects. The speaker from the California Public Utilities Commission (CPUC), interestingly, said CA utilities “own very little of their generation.”

All of the CCAs we heard from have plans to reach 100% green energy status by 2030 or 2035 and have developed integrated resource plans showing how they intend to reach their goals. A number of CCAs reported that they had founded their CCAs based on their Climate Action Plans.

Structure

The most common form of CA CCAs is the Joint Powers Agreement (JPA) between municipalities. The head of East Bay Community Energy, which is the newest CCA – just over 100 days old at the time of the conference – and is doing some of the most interesting things, put it simply: “The JPA is the CCA.” Under the provisions of a Joint Powers Agreement, a CCA is

considered a separate, distinct entity with a firewall in place to make sure any debts and obligations cannot be taken from the general funds of its members. The resulting organization also has wide powers to borrow and invest funds.

Most of the CCAs' Boards are composed of elected officials, with designated alternates who may or may not be elected. There are different models, but "99% of the time" every muni gets 1 vote. Usually voting is not weighted. San Diego, which is very large and has several much smaller municipalities within it (Imperial Beach, for example, has a population of 27,000) capped its share of voting @ 49%.

There is a second model, which participants described as "hybrid CCA," or "umbrella CCA." This model has two levels: an umbrella organization, [Cal Choice](#) (a Joint Powers Agreement), and the municipalities themselves – there are currently five of them – which retain their independence in planning and carrying out their programs. Cal Choice negotiates on behalf of these municipalities, aggregating purchases to the extent practicable, but otherwise the municipalities retain their autonomy. Each one has its own integrated resource plan, sets rates, and decides what projects to pursue. The legal challenge in creating this model, according to the speaker from Cal Choice, was to protect different entities from default by others. Under the hybrid model, the municipalities' City or Town Council retains decision-making power over the CCA's actions on its territory. Cal Choice works directly with the municipalities and there is frequent – often monthly – consultation and communication.

Finally, Shawn Marshall of [LEAN](#) mentioned a third modality, where the CCA is basically a department within a municipality. This model, referred to as the Enterprise Fund Model (w/in a city), has the City Council as its board; we did not hear from any of these.

As noted above, several municipalities reported that they had based their CCA on their Climate Action Plan. An example is Imperial Beach, a town of 27,000 that aims to be 100% green by 2035 and recently joined the [San Diego Regional Community Choice Energy Authority](#) – created in September 2019 and one of the largest in the state. San Diego also based its CCA policy on its Climate Action Plan and has the same goal. Other sources on San Diego include: <https://www.sandiego.gov/sustainability/clean-and-renewable-energy> and <https://cleanpowerexchange.org/san-diego-progresses-green-energy-transition/>, <https://www.sandiegouniontribune.com/business/energy-green/story/2019-11-22/new-san-diego-regional-energy-program-picks-a-name>.

CCAs can create "special purpose vehicles" for specific projects. These may take the form of LLCs, funded either by the municipality or through grants. Marshall suggested talking to developers to get a better sense of what could be possible here.

As far as I know, all of the CCAs conducted a feasibility study prior to their formation. This may be required by the CPUC.

Values

The CCAs we heard from all emphasized their interest in increasing clean energy. But their approach to building the CCA and the nature of their value proposition differed. Some started with 100% green supply; others tended to approach planning and growth from a financial perspective, accumulating funds first. In some cases, they started with a mix as a means of accumulating experience and funds but had plans to get to 100% later through an increasingly green mix of purchases from existing or new clean generation projects, plus their own investments.

An interesting example is the city of [Lancaster](#), a mid-size city in the Mojave Desert that started its CCA early, in 2014, even though it has 40% CARE customers (California's equivalent of HEAP). It is an example of the "hybrid mode." Working with CalChoice, Lancaster offers both "brown" and 100% green options and has plans to achieve 100% green energy by 2030 through a combination of purchasing solar, wind, and hydro from their ISO and investing in solar, wind, and battery storage, with the emphasis on solar. As indicated in their "[Standard LSE Plan](#)," about half of the projected amount would be purchased, and half would be new projects supported by the municipality. It is working on a microgrid that includes 300 behind-the-meter storage units. More on Lancaster [here](#).

[Redwood Coast Energy Authority](#), formed in 2017 in Humboldt County CCA, which is among California's bottom 10 income counties, has a default supply of 40% green, with a 100% green option.

Larger CCAs have an easier time on the market and have more \$\$ for programs, local development, projects, etc. Solana Beach w. 14,000 people, "is making it with very small margins."

Projects

Many, indeed I suspect all the California CCAs are investing in renewable generation, EV charging, storage, etc., at a fast pace and on a large scale. Marin Clear Energy, which was the first CCA in California, has a 12.5MW solar project in Richmond on a brownfield. Peninsula Clean Energy in Silicon Valley just completed a [200MW solar plant](#) and has allocated \$10 million for resiliency – funding for community centers, backup power for police, water treatment, cell towers. Some are doing EE, though this seems to be a relatively small proportion of projects. Still, they are "working closely with PG&E on planning a microgrid project."

CCAs may either sign a PPA or own clean generation – the most common model is a 7-year PPA with an option to purchase. According to Shawn Marshall, CCAs can build community solar..

East Bay, doing "value-based marketing," is also studying whether off-peak power could be free to CARE customers.

There are several projects exploring the potential of behind-the-meter storage to bid into the ISO as demand reduction, in one case with solar plus storage at schools and hotels. This relies on Time of Use pricing, which took a long time to develop with the utility and is still rather

primitive but expected to evolve. East Bay, a large CCA based in Oakland, which became active in 2018, has created a subsidiary called the Oakland Clean Energy Initiative, which will replace an old, polluting peaker plant burning jet fuel with solar + storage, some of which is located behind the meter in a poor neighborhood heavily affected by pollution from the old plant. They have 3 storage contracts, incl. aggregation of behind the meter solar & storage in LMI areas. The idea is that the storage can be drawn on for “proxy demand response.” The arrangement was worked out in cooperation with the utility and their ISO.

I also met an organization, Franklin Energy, that focuses on Energy Efficiency in the form building retrofits and health.

Funding

CCAs there seem to be very bullish on funding – and successful! They also produce quite a lot of revenue, which has been a challenge in NY. The San Diego CCA, which formed just a month ago, already has funding in the form of a line of credit for its plans -- \$40 million at 1-2% interest from River City Bank, which has funded a lot of CCAs. The line of credit was based in part on a feasibility study undertaken by an outside firm. The bank provides both working capital and CapEx; they “prefer if CCAs accumulate some cash when starting out.”

The CPUC collects a Public Goods Charge, like our Systems Benefit Charge (SBC). Similarly, the Public Goods Charge focuses on Energy Efficiency. Most of the funds seem to be disbursed through the IOUs but CCAs can apply to become “EE Administrators” and submit plans for spending these funds while demonstrating that there will be no duplication with what the utility is doing. Not all CCAs do this, however. There is support for green jobs training but only as part of a portfolio of measures submitted for approval by Program Administrators.

Speakers also stressed the importance of analytics and paying attention to the load curve – if there is a good Time of Use (TOU) rate storage can make a significant financial difference.

Other

There are a number of companies specializing in grid analytics and other forms of data creation and analysis for CCAs. One of the most interesting is a company called [openADR](#), which offers an Internet-based system (not based on utilities’ Advanced Metering Infrastructure) for linking behind-the-meter storage and curtailment to demand reduction. The goal, ultimately, is to bid this demand response in to the California Independent Systems Operator (CAISO).

There was some speculation on future developments, including projections showing that the state that will face a 300MW shortfall in electricity within the next five years.

San Francisco is rumored to be interested in municipalizing, and a speaker said that their utility may be losing interest in distribution: “They don’t make money from it, only from investments.”