



# Community Choice Aggregation

## An Update

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JOHN FARRELL  
[jfarrell@ilsr.org](mailto:jfarrell@ilsr.org)

## Introduction

For years, the U.S. has been served by four forms of electric utility: investor-owned, cooperative, municipal, and federal (e.g. Tennessee Valley Authority). This list is changing. Community Choice Aggregation (CCA) is a law passed in several states that allows cities and/or counties to join together and form a retail utility that will serve all electric customers in its jurisdiction by default (an opt-out rather than an opt-in process). The CCA framework guarantees a customer base for public entities desiring to provide electricity to homes and businesses in their jurisdiction and may result in lower costs, improved conservation, and increased renewable energy generation for CCA participants.

## What is Community Choice Aggregation (CCA)?

Defined by California law (AB117), Community Choice Aggregation (CCA) “permits any city, county or city and county to **aggregate the electric loads of residents, businesses and municipal facilities to facilitate the purchase and sale of electrical energy.**”<sup>1</sup>

Aggregation began in response to retail deregulation that allowed customers to buy electricity from any supplier, not only their local utility. Businesses sprang up to create “buying clubs” to allow groups of homes or businesses to negotiate with electricity suppliers (the old utilities) to get cheaper power. Municipal government could also work as an aggregator, but it had to convince citizens to “opt-in.”

The CCA law changed this last part of the aggregation formula, allowing units of (representative) government to act as agents of their citizens by default. In other words, a city can act on behalf of all of its homes and businesses as a supplier of electricity or electricity related services unless those individuals specifically “opt out.”

California’s law was passed in 2002. To date no CCA programs are operating in that state. Several other states that passed similar laws before California, however, do have currently operating programs: Ohio (established in 1999), Massachusetts (established in 1997) and Rhode Island.<sup>2</sup>

## How does it work?

In California, the state-level CCA legislation says that an individual city or county or a group of cities and counties may form a CCA by enacting local legislation (e.g. city ordinance) and getting approval of an application from the California Public Utilities Commission (CPUC).<sup>3</sup> The process is similar in other states. In the plan, the CCA outlines how it will maintain reliability, meet demand, meet or beat existing rates, and also improve upon conservation, efficiency, and renewable energy targets. Upon approval of the plan, nearly all electrical customers in the service area will default to being represented by the new CCA, with a limited time to opt-out (and remain with the prior utility).

The existing distribution utility continues to serve the aggregated load, with metering, billing, collection, and customer service. CCAs negotiate and set rates, determine generating resources, and establish “public benefit programs” on behalf of their members.<sup>4</sup> The CCA has a number of options for meeting their load: single third party generation, multiple third party generation, in-house generation, or a joint operation agreement.<sup>5</sup> In California, CCAs can apply to take responsibility for utility efficiency money collected from CCA customers.

Customers in a California CCA also pay a “Cost Responsibility Surcharge” that helps hold IOU customers harmless when CCA customers leave their service. This covers the expense of exiting long-term power contracts and the cost

of maintaining the grid.<sup>6</sup> The tentative charge set by the CPUC is \$0.02 per kilowatt-hour (kWh), a significant sum against baseline electricity prices of \$0.11 per kWh.<sup>7</sup> It does not appear that other states require these charges, making the CCA model more competitive there.

As properties turn over in ownership, each new owner is given the opportunity to opt-out of the CCA service.<sup>8</sup> Participants in Ohio are allowed a free opt-out every two years.<sup>9</sup>

## What are the benefits and risks?

### Benefits

There are four significant benefits to using a CCA as the local retail utility rather than an investor-owned utility (IOU): cost, conservation, renewable energy, and local control. A public CCA has a cost advantage over an IOU because its cost of capital is significantly lower. The California Energy Commission estimates that the cost of capital for a CCA is almost a third of that for an IOU, 5.5% compared to 12.9%.<sup>10</sup> This means that first-year costs at new generating plants are 40% lower than if owned by IOU. For example, in a typical 100 MW wind project, the cost of generation was estimated at 4.7 cents per kWh with public (municipal) ownership and 7.7 cents per kWh with IOU ownership.<sup>11</sup> CCAs also have more autonomy in changing rates (not having to go through the CPUC), and also have the power to create rate stabilization funds, where current surplus revenues can help offset increases in fuel costs.<sup>12</sup> In a feasibility study for the city of Oakland, a CCA of local municipalities was estimated to reduce rates by 5% over business as usual (with utility Pacific Gas & Electric).<sup>13</sup> This mirrors the savings found in CCAs in Ohio and other states. It should be noted that traditional municipally owned distribution utilities would also have this financing-related advantage. However, the process of converting from a private utility to a public utility is a long and costly one for it includes buying the existing distribution system. As a result, there have been virtually no buy-outs of private utilities by cities for several years.

Publicly-owned utilities don't have to make a profit, don't have to pay taxes and don't have to pay exorbitant salaries for executives (PG&E's CEO made \$12 million in 2007). All of these cost savings can be passed on to customers.

*Tam Hunt, Community Environment Council, CA*

CCAs also have an edge in conservation, because unlike an investor-owned utility – for whom electricity sales means profits – a CCA does not have a perverse incentive to increase consumption of electricity in order to make more money. Instead, a CCA can use excess generation in part of their service area to offset demand elsewhere or invest in demand reduction and conservation to simply reduce electricity costs for customers.<sup>14</sup> This advantage is particularly pronounced if the CCA does not own any generation assets, and therefore has no sunk generation costs. A CCA in California can also become the administrator of energy efficiency funds (approximately 3 percent of every utility bill) in its service territory. Removing these funds from IOU control has been shown to improve effectiveness.<sup>15</sup>

A CCA also has an advantage in increasing the use of renewable and local energy generation. A particular advantage is in the financing of renewable projects, where low cost capital significantly reduces the price on wind or solar power generation. Furthermore, with financing terms of 20 years, but system lives of 25 or 30 years or more, a CCA can pay off renewable energy projects and eventually have near-zero cost electricity for its members. The feasibility study in Oakland found that a CCA serving that region could attain a portfolio of 50 percent renewable energy in 2017 – twice the IOU's goal, and at a lower cost.<sup>16</sup>

Finally, a CCA offers local control of utility decisions, to the potential benefit of the local economy. Management of the CCA can also be local, increasing employment. Furthermore, the CCA has the authority to develop local generation, and these construction and operating projects bring jobs and economic development to the community.<sup>17</sup>

### Risks

There are also risks involved for community aggregators including start-up costs, ownership, loss of customers, and participation in electricity markets. The most significant risk is in owning power plants. Even though many

aggregation programs look for power from time-tested technology such as natural gas, ownership of conventional plants provides the greatest potential gain (low cost electricity) and potential risk (maintenance costs, future carbon costs, credit risks). Aggregators also face the risk of customer attrition (if opt-out costs are low), although attrition rates in Massachusetts and Ohio are low, typically 1-3 percent.<sup>18</sup> CCAs also face risks attendant to the participation in electricity markets, ranging from negotiations with power suppliers, competition from IOUs, and commodity price volatility for CCA-owned fossil fuel generators.

More detailed information on CCA costs and benefits can be found in the 2005 study *Community Choice Aggregation: the Viability of AB 117 and its Role in California's Energy Markets*.<sup>19</sup>

## In Practice

Several states allow for aggregation of electricity and gas customers through CCA programs, including Massachusetts, Ohio, Rhode Island, and California. Most programs focus primarily on reducing customer costs, but CCA programs can also prioritize energy efficiency, demand side management, and renewable energy generation.

### California

California passed its CCA program law in 2002 – with CPUC rule making in 2004 – and there are no operating programs yet. Previously, customers had to opt-in to any electric load aggregation, but AB 117 allowed units of government to aggregate with an opt-out.<sup>20</sup> Two major initiatives are underway with the new CCA law, in San Francisco and in the Fresno area, in addition to other programs under consideration including Marin County.

#### San Francisco<sup>21</sup>

The plan is currently in process, with public hearings in 2009 and planned submission to the California Public Utilities Commission (CPUC) for certification in 2010.<sup>22</sup> Prices from the CCA will meet or beat prices offered by Pacific Gas and Electric (PG&E). The CCA electricity supplier must comply with the following rules:<sup>23</sup>

- 360 MW of new “generation” installed by 2010
  - 31 MW of solar PV
  - 72 MW of distributed generation, e.g. fuel cells
  - 150 MW wind farm
  - 107 MW of efficiency and conservation
  - Financed by city revenue bonds (H-bonds), paid back through electricity sales revenue. Bonds will be paid off in 15 to 20 years.
- 51% RPS by 2017, including efficiency and conservation measures

The budget for establishing the San Francisco CCA is in the tens of millions:<sup>24</sup>

- Expense - \$12 million to transfer customers to new supplier
- Revenue
  - PG&E public goods fund, ~\$7 million per year for energy efficiency
  - Revenue bonds - ~\$29 million per year 2008-2010
  - Conservation/efficiency
  - State rebates for solar PV and fuel cells
  - Partnerships with taxable entities to monetize tax credits, depreciation

#### San Joaquin Valley Power Authority

This CCA will serve eleven cities and one county in the region around Fresno, CA and has selected the King’s River Conservation District as their energy supplier. The CCA implementation is currently in process, with an implementation plan currently before the CPUC.<sup>25</sup> The CCA will be enacted in a phased approach, beginning by aggregating and serving load of the municipal and county buildings, then industrial, commercial, and finally residential customers.<sup>26</sup> The initial start-up costs are estimated at \$2-3 million.

The SJVPA will attempt to meet the state’s 20 percent RPS by 2010, though it starts from 0. This goal requires 53 MW of renewable power (at a 90% capacity factor, or 160 MW at the 35% capacity factor often achieved by wind turbines).<sup>27</sup>

The CCA will not undertake any energy efficiency programs beyond what distribution utilities (PG&E and SCE) currently offer in the short term, but hopes to launch its own energy efficiency initiative in the future.<sup>28</sup>

One of the cornerstones of the CCA will be a KRDC-operated 565 MW baseload natural gas plant. The plant is expected to provide a significant portion of the CCA generation portfolio.

## Ohio

Ohio has had community choice aggregation – called governmental aggregation – since 2001, and the Northeast Ohio Public Energy Council<sup>29</sup> is the country’s largest CCA, serving over 100 cities and 600,000 customers.<sup>30</sup> Its rates on the generation portion of bills are 6% lower for residential and government accounts, 4% lower for commercial and small industrial accounts, and the power provided is 70% less polluting than typical system power in Ohio.<sup>31</sup> This CCA saved its customers \$46 million from 2001-2005.<sup>32</sup>

There is one other aggregation program currently in development – Central Ohio Public Energy Council – and two other aggregation programs that operated in earlier years but have now been discontinued.<sup>33</sup> The Office of the Ohio Consumers’ Counsel offers guides to communities interested in pursuing aggregation on their website (see note).<sup>34</sup>

Much of Ohio’s prior success with aggregation was undermined by “rate stabilization” policies that were introduced to enlist popular support for retail deregulation. These policies required retail providers to offer below-market rates for a certain number of years. That reduced the advantages of aggregators and reduced retail competition substantially.<sup>35</sup>

## Massachusetts

The Cape Light Compact<sup>36</sup> is one of the oldest CCA organizations, started in 1997 and serving 200,000 customers in 21 towns and two counties on the Cape. It negotiates lower cost electricity service for member communities and also provides energy efficiency programs.<sup>37</sup>

## Rhode Island

The Rhode Island Energy Aggregation Program<sup>38</sup> is a consortium of 36 cities and towns started in July 1999 – created and run by the Rhode Island League of Cities and Towns – that serves municipal facilities. The program has saved its municipal customers over \$18 million in the 10 years since its founding.<sup>39</sup>

## Conclusion

Community Choice Aggregation is the latest twist on public ownership and aggregation of electricity supply and it may prove to be a less risky manner for cities and counties to seek lower prices, increased conservation, and greater renewable energy generation than existing options (such as municipalization). In several states, operating CCAs already provide cost savings to aggregated customers and promises of improvements in energy efficiency and renewable energy generation. It remains to be seen whether the CCA model will be simple enough to become more widespread and if it will be able to achieve improvements in conservation and renewable energy as it has already in utility bill reduction.

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