

## Community Choice Aggregation

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### Issue

This report describes community choice aggregation, also commonly known as municipal or community aggregation. Unless otherwise noted, the information in this report is drawn from “Community Choice Aggregation: Challenges, Opportunities, and Impacts on Renewable Energy Markets,” by the U.S. Department of Energy’s National Renewable Energy Laboratory (Feb. 2019).

### Summary

Community choice aggregation (CCA) allows local governments to procure wholesale electricity for retail customers within their jurisdiction on a combined basis (e.g., by contracting with a retail electricity supplier). The participating local government may operate the CCA directly or contract with a third party to do it.

The legislation that enables CCAs to form typically establishes a procedure that municipalities must follow. It generally includes a vote or referendum by the municipality and public hearings or other opportunities for public input. The CCA may also need to develop a plan that must meet certain requirements and be approved by a state agency. CCAs may form to cover a single municipality or include multiple municipal jurisdictions (e.g., county-wide or regional CCAs). While these larger CCAs may provide certain benefits (e.g., greater economies of scale), they may also pose certain challenges (e.g., loss of local control).

To date, nine states allow CCAs (California, Illinois, Massachusetts, New Hampshire, New Jersey, New York, Ohio, Rhode Island, and Virginia) although only seven of these states currently have active CCAs, and Rhode Island’s CCA only serves government customers. In 2017, the CCAs in these states procured 42 million Megawatt hours (MWh) of electricity on behalf of five million customers.

A CCA can decide whether it wants to focus on providing its customers with the lowest possible rates or meeting other goals, such as encouraging a greater use of clean energy. When deciding to use more clean energy a CCA must still maintain cost competitiveness or risk losing customers. Nevertheless, as CCAs continue to develop (into “Version 3.0”) they may generate new ways for communities to directly finance and develop their own clean energy projects and other related initiatives.

## **Community Choice Aggregation**

In states with deregulated electricity markets (like Connecticut) individual retail customers may choose to receive their electric generation services from their local electric distribution company (EDC, e.g., Eversource or United Illuminating) or a retail electric supplier. But, in jurisdictions with a CCA, the CCA contracts with a supplier on behalf of all of the CCA’s participating customers. The EDC continues to provide electric transmission, distribution, and billing services, but only provides generation service to those customers who do not participate in the CCA. (In Connecticut, EDCs provide “standard offer” generation services to customers who do not choose a retail supplier.)

According to a February 2019 [report](#) by the U.S. Department of Energy’s National Renewable Energy Laboratory (NREL), a key CCA feature is a requirement for its customers to automatically enroll unless they actively opt out of the program. This requirement increases program participation and allows a CCA’s relatively larger customer base to take advantage of economies of scale and increased buying power in the wholesale electric market.

## ***CCA Adoption Procedures***

According to the U.S. [Environmental Protection Agency](#) (EPA), in the states that allow CCAs a local government must hold public hearings and pass a law authorizing the CCA. Depending on state and local regulations, residential, commercial, and governmental customers may participate. Participation in CCAs is always voluntary, but most CCAs have opt-out provisions. Thus, when a community begins a CCA program, it notifies customers in advance that they may opt out of the CCA program and continue to receive electricity from their current supplier (e.g., either their retail supplier or their EDC’s standard offer). Customers who do not opt out are automatically enrolled in the CCA program.

For example, to form a CCA in [Massachusetts](#), a town may begin the process through a majority vote of its town meeting or town council. It must then prepare a municipal aggregation plan in consultation with the state’s Department of Energy Resources (and often in partnership with a consultant). It must allow citizens to review the plan and must submit it for approval by the state’s Department of Public Utilities, which must hold a public hearing before approving it. The plan must,

among other things, provide for universal access, reliability, and equitable treatment of all customer classes, and include an organizational structure of the program, its operations, and funding ([Mass. Gen. Laws ch. 164, § 134](#)).

### ***Multi-jurisdiction CCAs***

According to the NREL [report](#) (p. 23), the ability to exercise local control over power procurements is a primary selling point of CCAs. Most CCAs (particularly in Illinois, Massachusetts, and Ohio) have formed at the municipal, citywide level. In California, however, cities and counties have united to form CCAs that encompass multiple local jurisdictions working under an intergovernmental agreement (IGA). Under an IGA, the different jurisdictions grant powers to a designated entity to perform specific services on their behalf.

Multi-jurisdiction CCAs enable greater economies of scale. In turn, this may allow them to negotiate better rates from suppliers, generate increased revenue for the CCA, fund specialized staff with greater expertise, and subsidize or defray increased expenses related to using greater voluntary green power. They may also be better suited to participate in economic development projects (e.g., community solar) that may be cost prohibitive to individual community CCAs. According to the NREL [report](#) (p. 23), multi-jurisdiction CCAs working under an IGA may also create a legal and financial “firewall” between the CCA and its members, creating an extra risk mitigation layer between the participating municipalities and the CCA.

However, multi-jurisdiction CCAs also present certain challenges. Depending on the IGA, participating communities may lose some autonomy over their procurement. Working together may benefit some communities more than others (e.g., a small community joining with a large community will benefit from the increased economy of scale more than the large community will). Equitably distributing voting powers within a multi-jurisdiction CCA’s board may also be difficult (e.g., small communities will benefit from a one vote per community structure and large communities will benefit from population-based vote allocations). Lastly, creating a multi-jurisdiction CCA and IGA may be a time and legal intensive process (NREL [report](#) p. 24).

### ***CCAs in Other States***

Nine states currently allow CCAs: California, Illinois, Massachusetts, New Hampshire, New Jersey, New York, Ohio, Rhode Island, and Virginia. New Hampshire’s [enabling legislation](#) became effective in October 2019, and according to the NREL report, Virginia had no active CCAs as of February 2019.

According to the NREL [report](#), CCAs have the greatest market penetration in Illinois, followed by Massachusetts and California. Except for in Rhode Island, CCA market penetration is greater in terms of customers than megawatt hours because they primarily serve residential and small commercial customers. In Rhode Island, CCAs only serve governmental customers (e.g., municipal buildings). California is also unique among these states in that its retail electricity market is not fully deregulated (thus, CCAs can more easily contract directly with generation resources). The table below shows NREL’s estimated CCA statistics for 2017.

**Table 1: Estimated CCA Statistics for 2017**

<i>State</i>	<i>Number of CCAs</i>	<i>Sales (million MWh/year)</i>	<i>Number of Customers (x 1,000)</i>	<i>Percentage of Total State Sales</i>	<i>Percentage of Total State Customers</i>
California	9	11.8	1,239	5%	8%
Illinois	490	16.2	1,960	11%	34%
Massachusetts	110	5.1	870	10%	27%
New Jersey	15	1.7	210	2%	5%
New York	1	0.7	93	0.4%	1%
Ohio	120	6.6	660	4%	12%
Rhode Island	1	0.2	2	3%	0.4%

Source: NREL [report](#), p. 7

Brief descriptions of the CCA policies, status, and key issues in each of these states is available in the appendix of the NREL [report](#) (pp. 39-45). For additional information about the CCA programs in other states, see: <https://leanenergyus.org/cca-by-state/>.

## Lower Rates vs. Increased Green Energy

### *Rates*

A CCA may choose the mix of resources from which it purchases its electricity generation. Thus, it can focus on the least expensive options, emphasize greater reliance on renewable resources, or anything in between. According to the NREL [report](#), most CCAs formed primarily to reduce electricity costs for their customers and the ongoing ability of CCAs to offer electricity cost savings to their customers is critical to their viability (pp. v. & 20).

NREL states that (1) all of the CCAs it interviewed for its report offer lower rates than their state’s standard offer and (2) the data generally suggests that CCA rates are at least competitive with their respective standard service rates (p. 13). In states with deregulated markets, a CCA gains increased bargaining power by offering a potential supplier the chance to gain thousands of

customers at a time. A CCA may also benefit from greater market expertise than an individual customer would. Both of these factors can help CCAs obtain lower rates from a retail supplier than those that might otherwise be available to an individual customer.

## ***Green Energy***

Although customers in states with deregulated electric markets can typically opt in to programs that procure more renewable energy than otherwise required by their state (“voluntary green power”), the NREL [report](#) states that more customers procure voluntary green power through CCAs than through any other voluntary green power product. This is largely because CCAs that aim to increase clean energy use an opt-out rate structure that automatically procures a greater amount of clean energy for the customer than otherwise required, unless the customer opts out of the program (p. 12).

The NREL [report](#) (p. iv) estimates that in 2017, roughly:

- 750 CCAs procured 42 million megawatt-hours (MWh) of power for 5 million customers.
- 100 CCAs (about 13%) procured more renewable energy than otherwise required by their respective states (“voluntary green power”).
- These CCAs procured 8.9 million MWh of voluntary green power or roughly 21% of all CCA sales, on behalf of about 2.7 million customers.

However, a CCA may lose customers if it cannot maintain cost competitiveness and as a result it may need to reduce or limit its emphasis on more expensive voluntary green power. The NREL [report](#) (p. 20) cites the experience of CCAs in Illinois, which saw sales and participation surge in 2010-2013 when the standard offer rates were relatively high. But the CCAs lost their competitive edge when standard offer rates fell in the following years. Some communities suspended their CCAs after sales declined and others discontinued voluntary green power programs that could no longer be offered at a discount. According to the NREL [report](#), voluntary green power sales by Illinois CCAs decreased from 7.8 million MWh in 2013 to 3.5 million MWh in 2017 (p. 41).

## ***CCA 1.0, 2.0, and 3.0***

According to an October 8, 2019, [article](#) from [Utility Dive](#), CCAs may operate in three different “versions.” In Version 1.0, the CCA focuses on lowering electricity bills, and relies largely on its ability to negotiate lower rates and streamline operations to do so. Clean energy procurements generally occur through buying renewable energy certificates.

Version 2.0 CCAs focus more on providing clean energy and less on reducing rates. Instead of providing rates that are significantly lower than the EDC's standard offer, they may supply customers with greater voluntary green power, but at a rate that is roughly the same as the standard rate. They may also offer programs and incentives for using clean energy such as on-bill financing for purchasing energy efficiency measures or distributed generation (e.g., rooftop-solar).

According to the article, Version 3.0 CCAs are still developing and only partially realized, in California. These types of CCAs could be more directly involved in financing and supporting local clean energy (e.g., community or shared solar projects), energy storage, microgrids, and other projects.

As potential obstacles to fully achieving Version 3.0 CCAs, the article cites the difficulty of balancing the local autonomy given to CCAs with the need to (1) protect overall grid resilience and reliability and (2) maintain the state oversight and control needed for statewide planning and policy objectives.

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