COMMUNITY CHOICE AGGREGATION

What is Community Choice Aggregation (CCA)?

A community choice aggregation is a local governmental entity, enabled by state legislation, that provides municipalities greater control over their energy supply. The structure of a CCA will vary by electricity market context, but, as detailed below, a CCA generally enables a local government to pool the electricity demand of customers within its jurisdiction to procure power from an alternative supplier, while the electric utility continues to provide transmission and distribution services. This allows a community to benefit from cost efficiencies that are a result of bulk purchasing and local control, while avoiding the financially challenging task of purchasing and maintaining utility infrastructure.

The most common reason for establishing a CCA is the possibility of obtaining more competitive electricity rates. However, a growing number of local governments are establishing CCAs as a way to increase the percentage of their electricity supplied by solar and other renewable energy sources. Therefore, CCAs can be an important tool for local governments that seek to make solar, battery storage, wind, and related technologies a greater part of the energy mix.
The SolSmart program can provide no-cost consultations and technical assistance to help local governments learn more about considerations for CCA formation and how to pursue this option. Learn more at SolSmart.org.

How Community Choice Aggregation Works

A CCA effectively "aggregates" the electricity demand of many customers (residential and non-residential) in order to produce electricity from an alternative supplier. CCA customers "switch" from an incumbent investor-owned utility to a local government supplier with a green power product. The CCA purchases electricity and RECs from an alternative supplier. The investor-owned utility remains responsible for transmission and distribution.

Enabling CCAs

As of December 2019, CCAs have been authorized via state-level enabling legislation in nine states and are being investigated in an additional five states, as outlined below.⁴ ⁵

Where CCAs have been Enabled

![Map of the United States highlighting states with enabling legislation for CCAs.](image)

<table>
<thead>
<tr>
<th>STATE</th>
<th>ENABLING STATUTE</th>
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<tbody>
<tr>
<td>CALIFORNIA</td>
<td>Assembly Bill 117 and Senate Bill 790</td>
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<tr>
<td>ILLINOIS</td>
<td>Electric Service Customer Choice and Rate Relief Law of 1997</td>
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<tr>
<td></td>
<td><strong>House Bill 362</strong></td>
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<tr>
<td>MASSACHUSETTS</td>
<td>Utility Restructuring Act of 1997</td>
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<tr>
<td></td>
<td><strong>Acts 1997, Chapter 164</strong></td>
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<tr>
<td>NEW JERSEY</td>
<td>Government Energy Aggregation Act of 2003</td>
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<tr>
<td></td>
<td><strong>Assembly Bill 2165</strong></td>
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<tr>
<td>NEW YORK</td>
<td>Implementation of a pilot program approved by the Public Service Commission in 2014</td>
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<tr>
<td>OHIO</td>
<td>Ohio Restructuring Act of 1999</td>
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<tr>
<td></td>
<td><strong>Senate Bill 3</strong></td>
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<tr>
<td>RHODE ISLAND</td>
<td>Utility Restructuring Act of 1996</td>
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<tr>
<td></td>
<td><strong>House Bill 7786</strong></td>
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<tr>
<td>VIRGINIA</td>
<td><strong>House Bill 1590</strong></td>
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<tr>
<td>NEW HAMPSHIRE</td>
<td>SB 286</td>
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The structure and role of a CCA will largely depend on whether it is operating in a regulated or deregulated market context. CCAs are more common in states with deregulated electricity markets since utilities have already divested ownership in generation activities, and their role as a transmission and distribution company is well established. In states with regulated markets, utilities are permitted to maintain jurisdiction over all grid functions, including generation, transmission, and distribution within the power market. Retail customers do not have a choice of providers and are only able to purchase electricity from the local utility. In this market context, CCAs act more like competitors to the utilities.⁶ Currently, all states with enabling legislation have deregulated electricity markets, with the exception of Virginia and California.⁷ Virginia has a regulated electricity market; however, it does not yet have any active CCAs, and California is unique in that it has a partially deregulated electricity market.

For more information on the enabling legislation in each state, please see the table below:
HOW UTILITIES WORK

The traditional functions of a utility are typically divided into three categories:

1. **Generation** – Owning and operating facilities to generate electricity.

2. **Transmission** – Owning and operating the power lines and other infrastructure (poles, transformers, etc.) to carry electricity across long distances.

3. **Distribution** – Owning and operating similar infrastructure to distribute electricity to end-use customers.

The transmission and distribution (T&D) system is a natural monopoly, meaning it does not make economic sense for more than one company to build and maintain the expensive T&D network. As a result, public utility commissions regulate utility prices and service for T&D in all states. With regard to generation, however, there are two types of markets in the U.S. — regulated and deregulated.

In regulated, or “vertically-integrated” electricity markets, utilities are permitted to maintain jurisdiction over all grid functions. A vertically-integrated utility can own power plants, but does not necessarily generate all the power that it sells — it may contract with other generators. The utility will still be the sole option for where retail energy customers can purchase electricity.

In states with deregulated electricity markets, or “retail competition” states, utilities are not permitted to invest in electricity generation assets and as a result, mostly function as “transmission and distribution companies.” In these states, energy customers may select an energy provider other than the utility (this is known as “retail choice”). In cases where the electricity customer does not select a retail electricity provider, they will receive “default service” or “basic service” from the utility, which is typically purchased from the wholesale market. CCAs allow for a community to go out into the market and procure an alternative supplier on behalf of all residents.

Adapted from: “Pathways to 100”. Cadmus Pathways to 100: An Energy Transformation Primer for U.S. Cities, https://cadmusgroup.com/papers-reports/pathways-to-100-an-energy-supply-transformation-primer-for-u-s-cities/
## Process for Establishing

Local governments are key to implementing community choice aggregation programs once enabling legislation is passed. While the process may vary from state to state, generally a local jurisdiction will take some or all of the following steps:

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td><strong>1. CONDUCT RESEARCH</strong></td>
<td>The process often starts with initial research, conducted by municipal staff, to learn about CCA and its potential role. This may include a feasibility study, independent research, and meetings with energy supply companies for guidance. Local governments can also consult the SolSmart technical assistance team for resources and additional support.</td>
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<tr>
<td><strong>2. LOCAL APPROVAL</strong></td>
<td>A city or county must gain local approval to authorize the CCA. Local approval requirements vary from state to state and can include referenda, simple majority vote of elected bodies, or other local decision-making bodies. Additionally, if multiple municipalities pursue a joint CCA, they must each individually authorize the CCA by majority vote.</td>
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<tr>
<td><strong>3. ENGAGE A BROKER</strong></td>
<td>A local government may choose to issue an RFP for an energy broker to assist in the design, implementation, and monitoring of the aggregation plan. The energy broker will act as an intermediary between energy suppliers and the CCA to arrange contracts between the two. The energy brokers are compensated once a supplier has been selected, as they are often paid by the supplier through a small fee per kWh consumed. A local government may also retain an energy consultant to advise, manage, and vet responses from energy suppliers and brokers, and support community stakeholder engagement and strategic planning.</td>
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<tr>
<td><strong>4. CREATE A PLAN</strong></td>
<td>The municipality and energy broker will develop a CCA plan that demonstrates how the CCA will be reliable and how it will provide universal, equitable access to all users. To fully describe how the CCA will develop and operate, this plan will outline key topics, such as the organizational structure, financial plan, rate setting process, the load forecast and resource plan, customer rights and responsibilities, and the procurement process.</td>
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<tr>
<td><strong>5. PLAN APPROVAL</strong></td>
<td>The CCA plan must be affirmatively voted on at a city council or town meeting. Additionally, the plan must be submitted to the Department of Public Utilities or equivalent relevant body for review and approval before proceeding.</td>
</tr>
<tr>
<td><strong>6. SELECT SUPPLIERS</strong></td>
<td>The municipality or energy broker will issue an RFP for energy suppliers asking for different supply and term options. The competitive environment created by the RFP may lead to more favorable rates. The CCA will then enter a power purchase agreement (PPA) with one or multiple energy suppliers. PPAs may be long or short term, although contracts with longer terms may offer more price stability. Either way, the best practice is to build a diverse energy portfolio to minimize risk.</td>
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<tr>
<td><strong>7. NOTIFY CUSTOMERS</strong></td>
<td>Once contractors have been selected and contracted, all affected customers are notified of the supply change and must be offered the opportunity to opt out before enrollment in the CCA begins.</td>
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<tr>
<td><strong>8. ENROLLMENT</strong></td>
<td>Customers who do not opt out will automatically be enrolled in the CCA after a chosen timeframe. The electricity will be distributed and billed through the original utility. The delivery charges will be paid to the utility while the power charges are paid to the supplier.</td>
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CCA Models

CCA program models may vary in a number of ways. Some common points of differentiation include enrollment, renewable energy supply mix, and supply selections.

**Enrollment:** Participation in a CCA is always voluntary, but depending on the state statute, enrollment may occur on an opt-in or opt-out basis. Most CCAs have opt-out provisions, which means customers are automatically enrolled and given the opportunity to opt out of the CCA and remain with the utility. Although it is uncommon, some CCAs have opt-in provisions, which places the responsibility for enrollment on the customer and, for this reason, often results in lower participation rates.

**Renewable Energy Power Mix:** CCA programs will often provide several power supply mix options that vary in renewable energy content and price. In some cases, the CCA product will be cleaner, and possibly cheaper than the utility mix. For example, Somerville Community Choice Electricity (Somerville CCE) offers a standard product that contains 10% more renewable energy than the Massachusetts Renewable Portfolio Standard at a lower cost than the local utility (Eversource). The program also offers a 100% local renewable energy product, which is comprised of MA Class 1 Renewable Energy Certificates equal to 100% of a customer’s electricity consumption. At the time of this writing, the price of this offer is 13.2 cents/kWh, which results in a customer paying an additional $10 per month on average for the 100% Local Green product as compared to the standard product.

A comparison of Somerville CCE program rates and Eversource’s 2020 Basic Service rates can be seen below:

<table>
<thead>
<tr>
<th>PROGRAM</th>
<th>Somerville CCE Program</th>
<th>Eversource</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRODUCT</td>
<td>Somerville Local Green</td>
<td>Somerville 100% Local Green</td>
</tr>
<tr>
<td>% RENEWABLE ENERGY</td>
<td>Extra 10% MA Class I</td>
<td>Extra 100% MA Class I</td>
</tr>
<tr>
<td>RESIDENTIAL</td>
<td>$0.105/kWh</td>
<td>$0.132/kWh</td>
</tr>
<tr>
<td>SMALL BUSINESS</td>
<td>$0.105/kWh</td>
<td>$0.132/kWh</td>
</tr>
<tr>
<td>LARGE BUSINESS</td>
<td>$0.105/kWh</td>
<td>$0.132/kWh</td>
</tr>
</tbody>
</table>

How to Use CCA to Increase Solar Deployment

Like community solar and utility-sponsored green power programs, CCA is a mechanism that enables increased access to solar and other renewable energy for residents and businesses that may not have had access otherwise. Through a CCA, a municipality can increase solar deployment through a variety of methods, including procurement practices, incentives offered for solar installations, and the purchase of solar renewable energy certificates (RECs). A few of these approaches are highlighted in the examples below:

**Sustainable Westchester, New York**

In February 2015, the New York State Public Service Commission (PSC) selected Sustainable Westchester, a consortium of Westchester County local governments, to launch New York State’s pilot CCA program. The program, which serves 20 participating municipalities, offers customers the choice between a basic supply and a 100% renewable energy supply, both of which are lower cost than the average basic supply from default utilities. Of the 20 participating municipalities, 14 have selected the 100% renewable energy supply as their default supply.

More recently, in March 2018, the PSC decided to allow CCA and community solar to be offered as a single program in New York State. As a result, Westchester Power is now offering a new Solar For All program, which allows customers to subscribe to a portion of electricity produced by a solar installation. The installation will generate electricity that is delivered to the local grid, resulting in the generation of bill credits that customers will use to offset their electricity bills. The combination of CCA and community solar present in this and future programs supports the deployment of solar, decreasing the costs of customer acquisition and making solar development projects more financially viable.

**MCE (formerly known as Marin Clean Energy), California**

Launched in May 2010, MCE procures electricity on behalf of member communities located in Contra Costa, Marin, Napa, and Solano counties. While Pacific Gas and Electric (PG&E) offers a 39% renewable energy product, MCE currently offers customers three different service options, including the Light Green 60% Renewable Energy service, the Deep Green 100% Renewable Energy service, and the Local Sol 100% Locally-Produced Solar Energy service.

To incentivize solar installations and other renewable energy projects within the service area, MCE developed the Feed-In Tariff (0-1 MW) and FIT Plus (>1-5 MW) programs. These programs have resulted in several successful projects coming online, including the 1 MW Novato Cooley Quarry community solar farm, which will help supply Local Sol customers with 100% solar energy.

Additional incentives for solar include a $900 solar rebate for residential customers who qualify for the Single-Family Affordable Solar Home (SASH) program, as well as solar discounts available through SunShares, a group purchasing program that makes solar more affordable for residents in the Bay Area.
Benefits and Challenges

Benefits
Implementing a CCA can provide several benefits to communities, both in terms of renewable deployment and realized economic benefits.

- **Competitive and Stable Rates:** The most popular reason for establishing a CCA is that rates may be more competitive than basic services rates offered by the utility. Additionally, the selection of longer-term PPAs can provide customers with price stability.

- **Cleaner Energy Supply:** CCAs give local communities more control over their energy supply, which gives them the power to increase the percentage of their electricity supplied by solar and other renewable energy. For communities located in states with a renewable portfolio standard, it provides the opportunity to purchase energy with a higher renewable content than the state RPS, or to match 100% of the supply with renewable energy certificates.

- **Local Control:** CCAs allow communities to be directly involved in energy-related decisions and set their own priorities. A tangential benefit of local control is greater consumer protection, because the model allows the local government to vet suppliers on behalf of residents.

- **Economic Benefits:** Aside from the transmission and distribution charges that continue to be paid to the utility, ratepayer revenue generated from the CCA remains within the community, rather than being disbursed throughout the utility’s service area. These revenues can be utilized to develop local renewable energy projects, which provide many benefits to the community, including job creation.

Challenges

- **Utility Rate Uncertainty:** While competitive rates are one of the most attractive reasons for establishing a CCA, it is possible that after the contract has been executed, the utility’s basic service rates drop below that of the CCA. This was a major issue in Illinois, where CCA is referred to as Municipal Electricity Aggregation (MEA). MEA was popular from 2011-2013, when it could provide lower rates to customers compared to the incumbent utilities. However, many MEAs shut down in 2014 and 2015 when the competing utility contracts expired, and the price advantage declined or even turned into a disadvantage. This resulted in about 100 MEAs returning customers to utility “default” or “basic” service.

- **Renewable Energy Procurement:** Procuring greater amounts of renewable energy has become a key driver for many municipalities interested in establishing a CCA. However, the ability to do so will vary across states and electricity market contexts. In deregulated states, CCAs procure electricity via a short-term contract with a supplier, which limits the ability to procure local renewables that typically require longer-term contracts. As such, CCAs in deregulated states have largely relied on purchasing unbundled RECs to achieve greater amounts of renewable energy.

- **Negative Public Response:** It is possible that some residents and/or businesses may not support the creation of a CCA. Common arguments against the CCA model are that it is a form of government overreach or a poor use of public resources.

- **Administrative Costs:** Although the energy broker, which is paid by the supplier, handles much of the administrative responsibilities associated with a CCA, local government staff will still need to put resources toward monitoring the supplier and handling the public response.
California’s electricity market was briefly deregulated in the 1990s but returned to a regulated market after the California electricity crisis of 2000-2001 resulted in blackouts and the financial collapse of the state’s largest investor-owned utilities (IOUs). Now, CCAs are the only alternative to buying electricity from the utility. California’s first CCA was established in 2010. Since that time, the load served by CCAs has grown rapidly, and is expected to continue growing. This has resulted in legal and operational issues with the state’s IOUs. One major issue associated with CCAs is how the utility will pay for the power they procured to serve these customers prior to their departure to the CCA. The Power Charge Indifference Adjustment (PCIA) is an exit fee that “permits an IOU to charge a customer the cost of buying energy on the customer’s behalf when that customer ends service.” PCIAs are supposed to prevent the costs of procuring power for customers who have left the utility from shifting to customers who remain with the utility. In October 2018, the California PUC voted to adopt a new methodology for calculating exit fees that will result in higher costs for CCA customers.

For information on how to address these challenges and implement a successful CCA program, please see the recommended resources listed below.

**Exit Fees in California**

Establishing a community choice aggregation can help communities achieve designation under the SolSmart program, which has recognized over 350 communities for making it faster, easier, and more affordable to go solar. CCA formation can support achievement of SolSmart designation under the following credits:

- U-6: Provide residents with community choice aggregation/energy that includes solar PV as a power generation source.

For more information about how the SolSmart program can help communities meet their solar and CCA objectives, visit SolSmart.org.
Recommended Resources

- **LEAN Energy US — Local Energy Aggregation Network**
  This website, sponsored by the nonprofit Local Energy Aggregation Network, gives an overview of CCAs, as well as a breakdown of how they function in each state. Those interested in bringing CCAs to their state or community can learn more about what has already been done in places across the country.

- **Community Choice Aggregation: Challenges, Opportunities, and Impacts on Renewable Energy Markets — National Renewable Energy Laboratory**
  This report from NREL outlines the opportunities and challenges associated with CCA, and provides an overview of the current CCA market status and the impact of CCAs on renewable energy markets. Those interested in leveraging CCA to achieve renewable energy goals can learn more about how CCAs in different contexts can procure greater amounts of renewable energy than the state renewable energy portfolio standard.

  This guidebook, produced by the Boston Green Ribbon Commission, gives municipalities and other stakeholders guidance for purchasing renewable energy and making the associated environmental impact claims. Those interested in CCAs and their interaction with renewable energy can use this guidebook to learn about renewable energy certificates.

- **Community Choice Aggregation Landing Page — New York State Energy Research and Development Authority**
  This website gives municipalities and other interested parties access to documents that can be used in the process of implementing a CCA. This includes templates for legislation, inter-municipality agreements, and opt-out forms. While this information is specific to New York State, it can serve as a useful starting point for communities outside of New York.

- **Start a Community Choice Aggregation Program — Metropolitan Area Planning Council**
  This document, developed by the Metropolitan Area Planning Council, outlines the steps a municipality would take to implement CCA, as well as details regarding the overall timeline and key implementers. While this information is specific to Massachusetts, it can provide a foundational understanding of the process for communities outside of Massachusetts.
Notes

4. As of February 2019, CCAs are active in all enabled states other than Virginia.
14. Ibid.
15. Ibid.
18. Ibid.


29. Ibid.


33. Ibid.


42. Ibid.


44. Ibid.