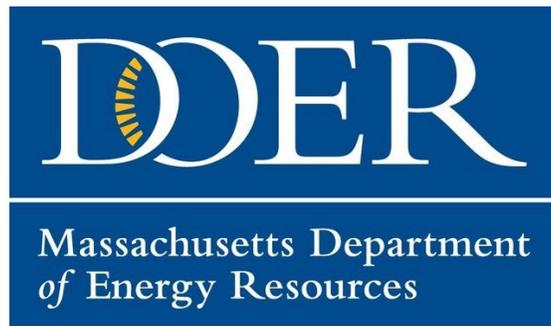


DOER Municipal Aggregation Manual & Best Practices Guide



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Glossary

- **Aggregator:** An entity that groups together electric customers for providing retail electricity supply service.
- **Basic Service:** The default electricity supply product provided by the investor-owned electric utilities in Massachusetts. Residential electric customers not participating in a municipal aggregation or an individual competitive electric supply contract will receive basic service. Rates are regulated by the Department of Public Utilities and typically change every six months.
- **Broker (Electricity Broker):** An individual or entity that brings buyers and sellers together to facilitate an electricity commodity supply arrangement.
- **Community Choice Aggregation (CCA):** Another term for municipal aggregation.
- **Consultant:** In this guide, “Consultant” refers to a municipal aggregation consultant that serves as an electricity broker for a municipality and helps to develop, launch, and operate a municipal aggregation.
- **Distribution System:** The portion of an electric system designed and used to deliver electric energy to an end user.
- **Department of Energy Resources (DOER):** The Commonwealth’s executive agency responsible for developing and implementing policies and programs aimed at ensuring the adequacy, security, diversity, and cost-effectiveness of the Commonwealth’s energy supply to create a clean, affordable, equitable, and resilient energy future for all residents, businesses, communities, and institutions.
- **Department of Public Utilities (DPU):** The Commonwealth’s regulatory agency with regards to the oversight of investor-owned electric power, natural gas, and water utilities in the Commonwealth.
- **Electric Distribution Company (EDC):** An electric utility that operates the distribution system and provides distribution service to end users. In Massachusetts, the three investor-owned EDCs are Eversource, National Grid, and Unitil.
- **Electric Service Agreement (ESA):** A contract between a municipality and competitive electricity supplier to provide electric supply service at an agreed-upon rate and duration.
- **Energy Burden:** The share of household income spent on energy.
- **Global Warming Solutions Act (GWSA):** Massachusetts law that requires the state to achieve Net Zero economy-wide greenhouse gas (GHG) emissions by 2050, with gross reductions of at least 85 percent below statewide 1990 GHG emission levels.
- **ISO New England:** The independent electrical grid operator that manages the regional wholesale electricity market and operates the transmission system in New England.
- **Kilowatt-hour (kWh):** A unit for measuring electric power or the rate at which energy is produced or consumed.
- **Load:** The amount of electric power required at any specific point or points on a system. The requirement originates at the energy consuming equipment of the consumers. Load should not be confused with demand, which is the measure of power that a load receives or requires.
- **Load Zone:** A geographic area that includes aggregations of wholesale prices for the purchase of market settlement.

- **Municipal Aggregation:** An arrangement where a municipal government contracts for electricity supply service on behalf of interested residents and businesses.
- **Municipal Light Plant (MLP):** The term used in Massachusetts for municipal electric utilities. MLPs own and operate the electricity infrastructure in their jurisdiction and contract for generating service on behalf of their customers.
- **Opt-out:** The option of not participating in an aggregation with automatic enrollment. In Massachusetts, customers may choose not to participate, without penalty, before either enrollment or 180 days after enrollment.
- **Rate:** The price per unit of electricity (often expressed in cents per kilowatt-hour, or c/kWh). See Section 1.4 for details on understanding electric rates and bills.
- **Renewable Energy Certificate (REC):** A renewable energy certificate (REC) represents the environmental attribute associated with renewable energy production. One REC is created each time a qualified renewable energy facility generates one megawatt hour (MWh) of electricity.
- **Retail Choice:** A competitive market structure where retail electricity customers can choose to receive electricity supply services from competitive entities, instead of only the incumbent utility.
- **Supplier (Competitive Supplier):** A provider of electricity supply service to retail customers.
- **Time-of-Use (TOU) Rates / Time-Varying Rates (TVR):** A rate structure where electricity prices vary based on the time of consumption.
- **Transmission:** The movement or transfer of electric energy over an interconnected group of lines and associated equipment between points of supply and points of delivery over distribution facilities; typically conducted at 69,000 volts and greater.
- **Utility:** A regulated entity that exhibits the characteristics of a natural monopoly.

Introduction

Municipal aggregation is a program where a municipal government contracts for electricity supply service for its residents and businesses. Municipal aggregation has been permitted in Massachusetts since shortly after electric industry restructuring in 1997 and exists in several other US states, often referred to as “community choice aggregation” (CCA).

The Massachusetts Department of Energy Resources (DOER) has prepared this Municipal Aggregation Manual and Best Practices Guide (DOER Guide) to provide municipalities (cities and towns) with a resource that will assist in the formation of a municipal aggregation. The DOER Guide also provides information on the continued operation of a municipal aggregation once established.¹

In establishing the DOER Guide, DOER sought to respond to municipalities’ increased demand to establish aggregations by providing information that supports the effective and efficient formation of municipal aggregations, equips municipalities to advocate for municipal interests when forming a municipal aggregation, and improves collaboration with DOER on municipal aggregation formation.

- Sections 1 and 2 of this guide educate municipalities on the basics of electricity supply, prices, and municipal aggregation.
- Section 3 of this guide provides key considerations and related best practices for any municipality seeking to aggregate. Areas discussed include: use of a municipal aggregation to achieve clean energy and climate goals, funding and utilizing an energy manager to assist with the municipal aggregation, working with other municipalities, and how municipal aggregation interfaces with existing programs like Mass Save and utility low-income discount programs.
- Section 4 describes the process that a municipality will follow in forming an aggregation while identifying best practices to maximize policy benefits and avoid common pitfalls.
- Section 5 provides information for municipalities already operating a municipal aggregation, including ongoing outreach and education.
- The Appendices provide additional information to supplement the main text.

Aggregations Can Provide Important Benefits for Participants:

- ✓ **Clean Energy and Climate Targets:** Municipal aggregations can give participants an opportunity to use greener electricity and/or to finance clean energy projects, helping the state in achieving compliance with the Global Warming Solutions Act (GWSA).
- ✓ **Access to Retail Electricity:** Municipal aggregations can provide participants with access to competitively procured electricity while protecting them from issues that arise in individual supplier-residential contracts. This may be particularly beneficial to participating low-income and vulnerable customers that have paid significantly more under supplier-residential contracts.
- ✓ **Price Certainty:** Aggregation may offer participants stable electricity rates over an extended period in comparison to other supply options.

¹ The DOER Guide is informational and is not intended to replace expert assistance of consultants or lawyers.

Rapid Growth of Municipal Aggregations: Municipal aggregations have been growing rapidly in Massachusetts over the last several years. As of 2024, there were 169 active municipal aggregations in Massachusetts (Figure 1), more than double the number of aggregations seven years ago. Furthermore, 64% of eligible municipalities have either aggregated or begun the process to do so. The most recent data from DOER shows that as of June 2024, there were over 1.23 million municipal aggregation customers in Massachusetts.²

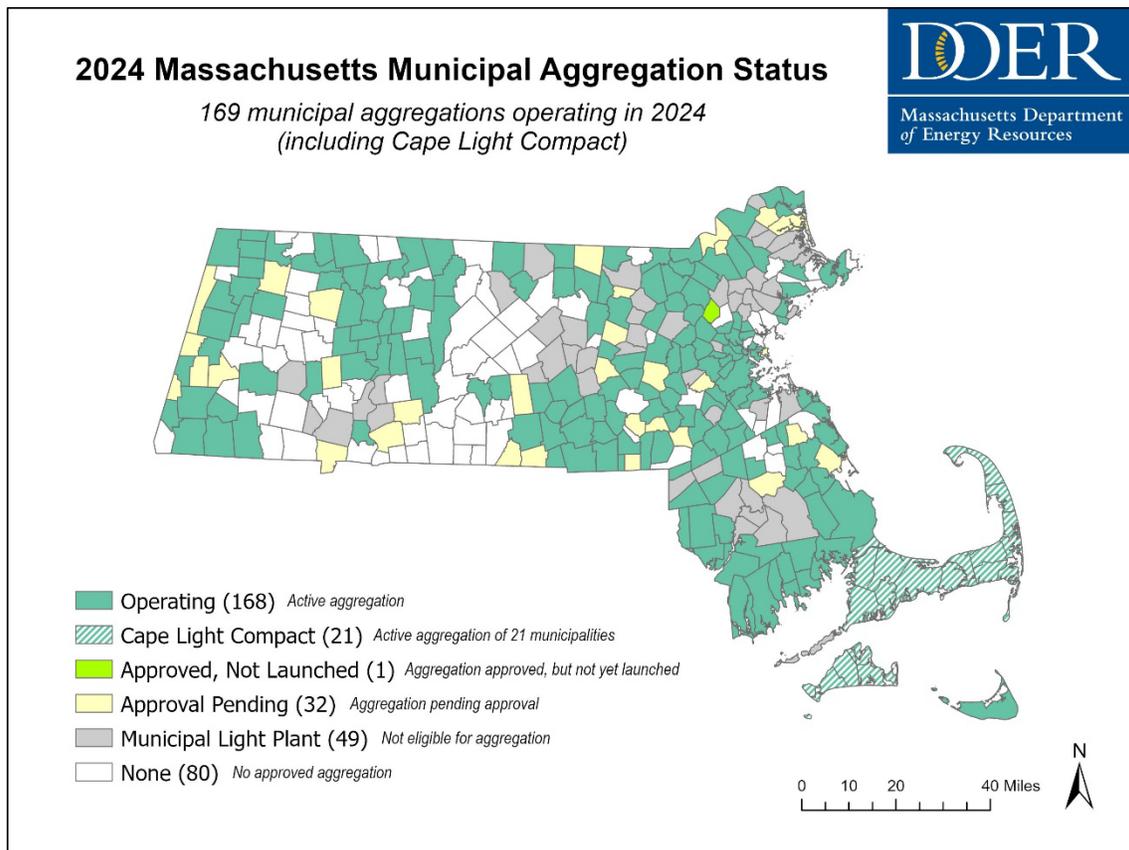


Figure 1. Municipal Aggregation Status in 2024.
Note: Aggregations that are in development are not reflected in this map.

² [Electric & Gas Customer Choice Data | Mass.gov](https://www.mass.gov/info-details/electric-and-gas-customer-choice-data)

1. Before You Begin: Basics of Electricity Supply and Distribution

This section provides background information about electricity supply and distribution. The Glossary defines key terms.

1.1 Role of Electric Utilities in Providing Electricity Supply and Distribution

What is the role of electric utilities?

Many of the state’s consumers obtain their electricity supply from the three Massachusetts investor-owned electric utilities, known as electric distribution companies (EDCs).³ This electricity supply option is called “basic service.”

However, the role of the EDCs extends beyond the provision of basic service. The EDCs’ primary role is to deliver electricity to consumers over local distribution wires, poles, and other distribution system infrastructure in a safe, reliable, and low-cost manner. The Department of Public Utilities (DPU), the state public utility commission, regulates the EDCs and the rates they charge.

In addition to owning, operating, and maintaining the distribution system infrastructure and providing basic service, the EDCs provide metering and billing services to customers for their electricity usage and delivery and offer programs such as the Mass Save energy efficiency programs. Each EDC provides a monopoly distribution service to a defined geographical area called a “service territory,” and is subject to the oversight of the DPU.⁴

Municipally Owned and Operated Electric Utilities: Although the EDCs serve most municipalities in Massachusetts, there are also 50 municipalities in Massachusetts that are served by a Municipal Light Plant (MLP), which is a utility owned and operated by the municipal government. Municipalities served by an MLP have their own electric supply as determined by the local MLP and are not eligible for municipal aggregation

1.2 Consumer Choice in Purchasing Electricity Supply

What options are there for buying electricity?

Today most consumers in Massachusetts have the choice to purchase their electricity supply from their EDC or a competitive supplier.⁵ This has been the case since the restructuring of the electric market in Massachusetts in 1997. Consumers living in a municipality with an established municipal aggregation have the added choice of purchasing their electricity supply from the municipal aggregation.

There are three main categories of electricity supply available to residential customers in Massachusetts (Table 1):

³ Eversource Energy, National Grid, and Unitil – read more at the DPU website: <https://www.mass.gov/info-details/find-my-electric-gas-and-water-company>

⁴ The DPU provides a service territory map [here](#) and a listing of which EDC serves a given municipality [here](#).

⁵ With the exception of customers served by an MLP (see box on p. 3).

Type of Electric Supply	Procuring Entity	Customers Served
Basic Service	EDC (i.e. Eversource, National Grid, or Until)	This is the supply source for any customer who is not participating in a municipal aggregation or contracting for competitive electricity supply.
Municipal Aggregation	Municipality	When established by a municipality, eligible customers will be auto-enrolled in municipal aggregation supply unless they choose to opt-out. Customers may choose to join or leave the aggregation at any time with no charge.
Individual Competitive Supply	Competitive Supplier (see listing from DPU)	Individual customers sign contracts with a competitive supply company.

Table 1. Types of Electric Supply

As of June 2024, more residential electricity consumers in Massachusetts are participating in municipal aggregation (45%) than basic service (36%) for their electricity supply (Figure 2). Another 19% are on an individual competitive supply contract.

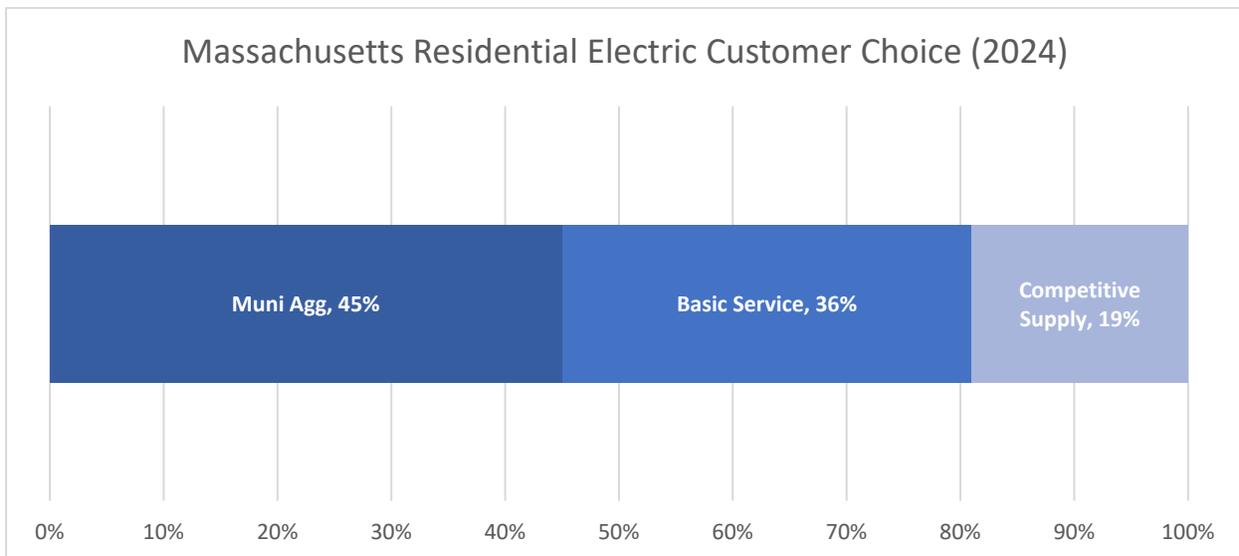


Figure 2. Massachusetts Residential Electric Customer Choice as of June 2024

Risks in the Competitive Supply Market

Investigations by the [Massachusetts Attorney General's Office](#) have shown that residential consumers on individual competitive supply contracts have suffered substantial losses compared to if they had remained on utility basic service. Additionally, there is evidence that competitive suppliers have targeted low-income and minority communities for contracts with unfavorable terms.

The DPU has regulations that govern the competitive supply market. Since municipal aggregations are a type of competitive supply, they are also subject to those regulations, with two exemptions: (1) the municipal aggregation does not need a broker's license, since the plan approval replaces this requirement, and (2) the municipality may automatically enroll customers on basic service to their standard product without a customer's affirmative consent (customers may opt out of a municipal aggregation's standard product at any time though).

1.3 Electricity Rates, Prices, and the Wholesale Market

In New England, there is a wholesale market for electricity where electric suppliers purchase energy to resell to retail consumers. The price of electricity in the wholesale market changes in real time (every five minutes) and is influenced by demand, power plant availability, weather, and location. For instance, on a hot summer day when many customers are running air conditioning and demand for electricity is very high, electricity prices in the wholesale market can often spike to many times higher than average. Similarly, during cold periods in the winter energy prices can spike as the region relies on comparatively expensive petroleum and imported liquified natural gas (LNG) to maintain reliable electric demand (see Figure 3). Wholesale electricity prices could also rise if a power plant in the region experiences an unexpected outage, or when fuel supplies are scarce. Finally, since fossil fuels are globally traded commodities, global geopolitical factors can influence wholesale energy market prices in New England.

What drives the cost of electricity?

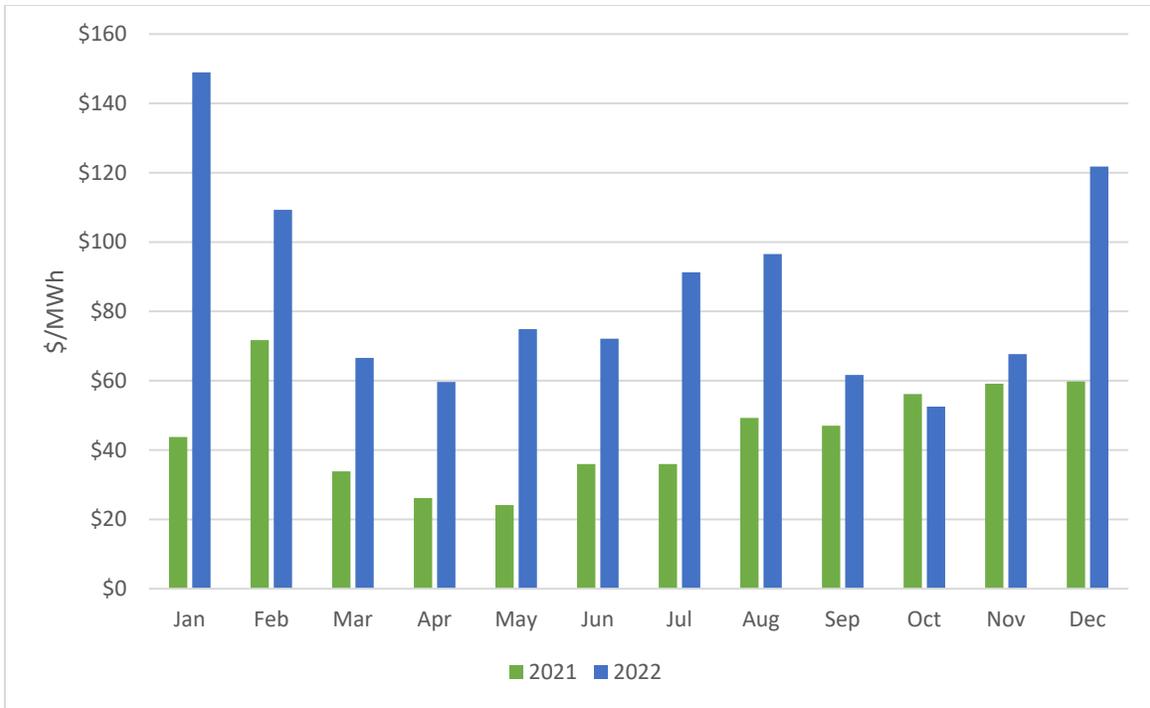


Figure 3. Average Monthly Wholesale Electricity Prices in Massachusetts (2021 and 2022)

While electric prices change in real-time, electricity suppliers typically sell the electricity purchased on the wholesale market for consumption by residential customers as a fixed dollar per kilowatt hour rate (\$/kWh). The fixed rate that residential customers pay for electricity reflects an average of the underlying wholesale prices that the supplier must pay over a given period of time, in addition to other costs described in the next section. There are other types of customers who may purchase electric supply from competitive suppliers under a time-variable rate. For instance, large commercial customers often will opt to pay an electricity rate that varies because it is more advantageous based on their business operations. However, this type of varying rate is not currently available for most residential or small commercial customers due to limitations of electric metering technology.

1.4 Understanding the Basics of Electric Bills

How do I read my monthly electric bill?

Consumers receive their electricity bill from their EDC even if they purchase their electricity supply from a municipal aggregation or a competitive supplier.⁶ Bills vary slightly depending on the EDC serving a customer.⁷ Electricity is billed monthly in dollars per kilowatt-hour of electricity use (\$/kWh).

⁶ Customers served by MLPs receive electricity bills from MLPs.

⁷ Sample electric bills with explanations of the charges are available for Eversource Energy customers [here](#), for National Grid [here](#), and for Unitil [here](#). Each of these bills will show the Supply rate a given customer is paying, which will vary depending on whether they are on basic service, a municipal aggregation rate, or an individual competitive supply contract rate.

Electric bills are split into two main components: Delivery and Supply (Table 2). Only the Supply side of the bill is impacted by municipal aggregation.

Charge	Description	Amount	Impact of Municipal Aggregation
<p>Delivery</p> 	<p>These charges cover the cost of utility infrastructure (poles and wires) to deliver electricity to homes and businesses, as well as certain public policy related charges.⁸</p>	<p>Varies over time and depends on the EDC. Typically, Delivery charges account for about half of the total electricity cost.</p>	<p>Municipal aggregation does not impact the Delivery charges on electric bills. The EDC will continue to collect Delivery charges from all municipal aggregation customers.</p>
<p>Supply</p> 	<p>This charge covers the cost of purchasing electricity supply from the wholesale energy market.⁹</p>	<p>Varies over time and depends on the type of supply the customer is receiving: Basic Service, Municipal Aggregation, or Competitive Supply. Typically, Supply charges account for about half of the electricity cost.</p>	<p>Upon aggregating, the municipality enters into a contract with a competitive supplier to purchase electricity Supply, and the contract sets the electric Supply charge for participating customers.</p>

Table 2. Electricity Charges

Supply rates change over time depending on market conditions. The schedule of supply rate changes is also different depending on the type of supply. Basic service rates are reviewed and approved by the DPU every six months (current and historical rates can be viewed at the DPU website). Municipal aggregation supply contracts vary among aggregations, but contracts for fixed rates typically last between 18-36 months. For individual competitive supply contracts, rates and contract terms are highly variable and rates are not regulated by the DPU. Some competitive supply contracts include monthly variable rates and auto-renewal provisions.

⁸ There are also other charges beyond the charge for delivering electricity to homes that are included in the Delivery portion of electric bills such as clean energy policy charges and an energy efficiency charge. More information is available in the [DOER Comprehensive Energy Plan \(2018\)](#).

⁹ The cost of renewable energy certificates described in section 4.2 are also included in this portion of the bill, as well as other wholesale market and supplier costs.

2. Municipal Aggregation Overview

This section provides an overview of municipal aggregation and key concepts that are important to understanding how aggregations operate.

2.1 Key Players in the Municipal Aggregation Process

The process of creating an aggregation involves multiple organizations and state agencies (Figure 4).

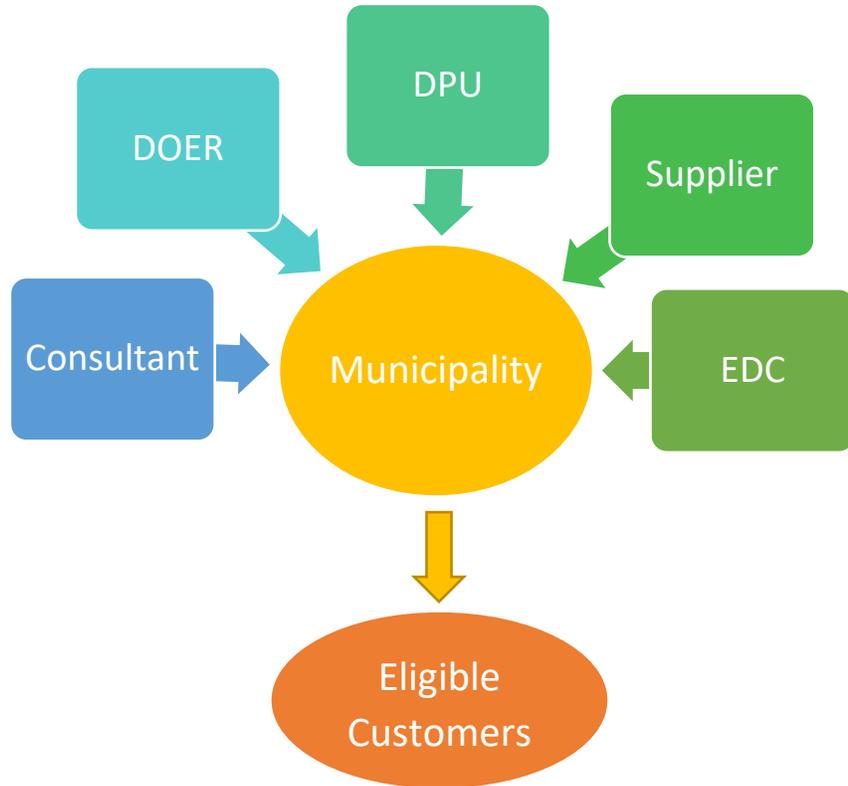


Figure 4. Key Players in Municipal Aggregation

- **Municipalities** hold the primary responsibility for the formation and operation of a municipal aggregation. The municipality must lead outreach and send communications to residents as well as coordinate with a consultant (if using), state agencies, and all other involved parties throughout the steps of the aggregation process.
- **Consultants** often assist municipalities with the aggregation process. A consultant must be licensed as an electricity broker in Massachusetts.¹⁰
- **The Department of Energy Resources (DOER)** is legally required to consult on and review municipal aggregation plans. DOER also serves as a resource to municipalities regarding aggregation through the Green Communities Division.¹¹
- **The Department of Public Utilities (DPU)** is the state public utility commission that regulates electric utilities, including municipal aggregations. All municipal aggregation plans are subject to review and approval by the DPU.
- **Suppliers** sign a contract with the municipality to sell electricity to municipal aggregation customers. Suppliers must be licensed in the Commonwealth as competitive electricity suppliers.¹²
- **EDCs** coordinate with the municipality to ensure a smooth transition of customers when an aggregation launches and continue to provide a single monthly bill for electric supply and delivery to customers on municipal aggregation.
- **Eligible Customers** choose whether to receive electricity supply from the aggregation.

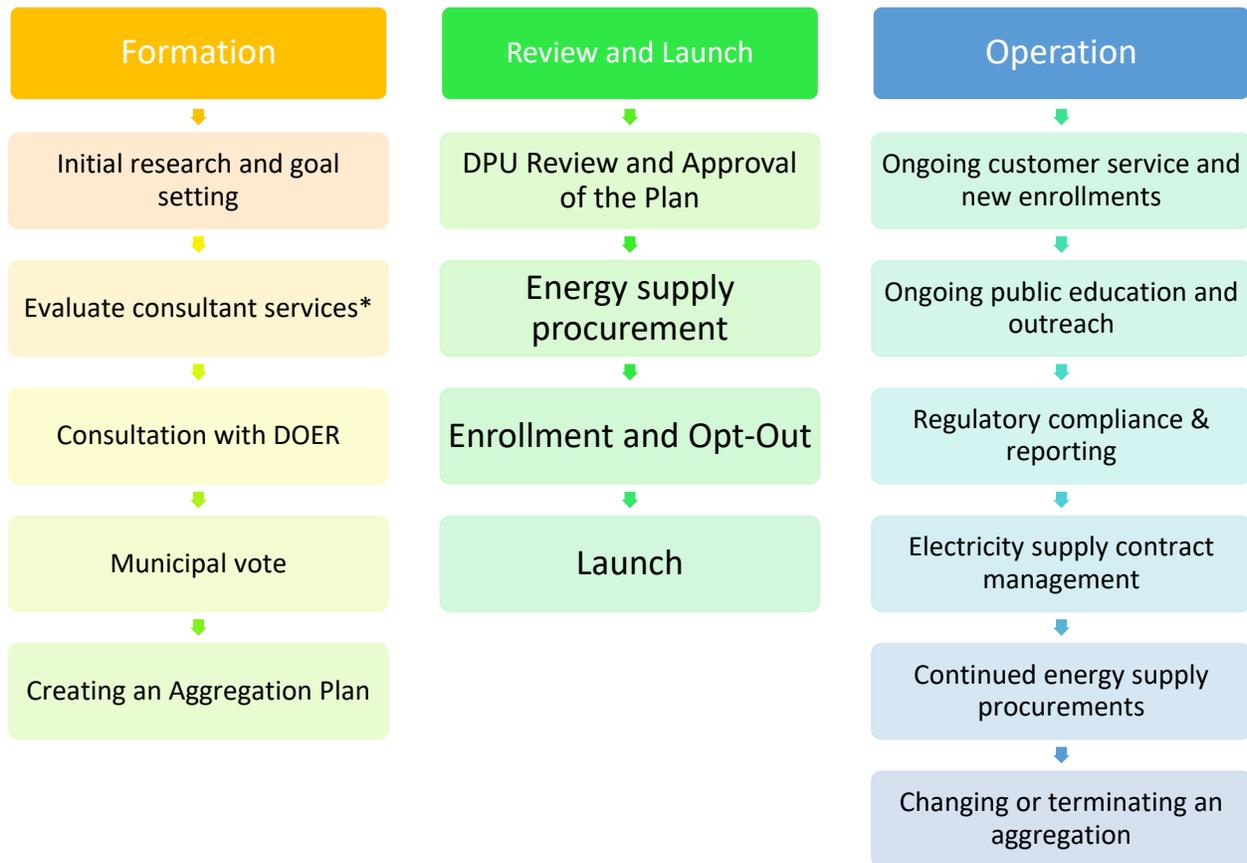
2.2 Key Steps in the Aggregation Formation and Operation Process

There are many steps involved in the process of forming and operating a municipal aggregation, and community outreach and education are needed throughout (Figure 5). Section 4 and 5 of this guide will explain each of these steps in detail.

¹⁰ See more on this from the [DPU](#). As of 2024, three companies are predominantly active as municipal aggregation consultants in Massachusetts: Colonial Power Group, Good Energy, and MassPowerChoice.

¹¹ See Appendix D: Additional Resources for contact information for Green Communities Regional Coordinators.

¹² More information about licensure is available at the [DPU website](#). DPU also provides a list of licensed competitive electricity suppliers [here](#).



NOTE: Community Outreach and Education is important to execute throughout the entire formation and operation processes, with some points in these processes requiring more intense outreach and education than others.

Figure 5. Key Steps in Municipal Aggregation Process

* In 2024, almost all active municipal aggregations worked with a consultant.

2.3 Standard and Optional Products

Every aggregation includes a “standard” product, in which consumers will be automatically enrolled when the aggregation launches.

This is a key feature of municipal aggregations: they are structured as “opt-out” programs, meaning that customers will be automatically enrolled into the standard product unless they actively choose to opt-out or choose to enroll in another product offered by the aggregation, if applicable. Only customers that are on basic service are automatically enrolled in the aggregation. For customers that obtain supply from a competitive supplier, their choice to enroll in a municipal aggregation will terminate their prior

competitive supply arrangement. However, it is important for customers to be aware that doing so may require the customer to pay an early termination fee (depending on the terms of their individual contract).

Note on automatic enrollment and customer choice: Municipal aggregations fully preserve customer choice for electricity supply. Customers participating in a municipal aggregation are free to leave the municipal aggregation at any time free of charge should they desire to return to basic service or a competitive supplier.

The standard product will always include the amount of renewable energy required by law, but a municipal aggregation may also choose to include additional renewable energy products in the standard product (see Section 3.2 for more information).

In addition to offering a standard product, many municipalities choose to offer optional products, for instance a “Green” product that includes more renewable electricity credits (usually at a slightly higher rate than the standard product), or a “Basic” product that only includes the minimum renewable electricity (usually at a slightly lower rate than the standard product if the standard product includes voluntary renewable energy). These products are often referred to as “opt-up” or “opt-down” products. Customers must actively choose to enroll in these optional products instead of the standard one.

Descriptions of all supply productions, including descriptions of how the rates for them will be set, must be included in Municipal Aggregation Plan that the municipality submits to the DPU (see Section 4.2). Any optional supply products the aggregation offers are governed by the same DPU regulations that apply to all competitive supply products.

2.4 Electric Supply Rates in an Aggregation

Municipalities undertaking aggregation procure electricity supply by conducting a competitive solicitation for an Electric Service Agreement (ESA). In the case of municipal aggregation, an ESA is a contract between the municipality and a competitive electricity supplier to provide electricity supply service at an agreed upon rate and duration.

The electric rates that a municipality can secure through the ESA will depend primarily on three factors:

1. Market Conditions: The prevailing wholesale electricity market conditions at the time the solicitation occurs, including current and forecasted future electricity prices.¹³
2. Load Profile: The pattern of the electricity demand of customers eligible to participate in the municipal aggregation is referred to as the “load profile” of the community. This includes factors like the times of day when demand is highest in the community, the mix of residential versus commercial and other large consumers in the community, and the community’s location relative to wholesale market “zones” that are used for pricing purposes.

¹³ As explained in Section 1.3, electricity prices on the wholesale market can vary substantially over time based on weather, resource availability, and demand.

3. Contract Duration: Since energy market prices are typically higher in the winter, the duration of the contract can impact the pricing received. For example, an 18-month contract that includes two winter seasons would likely produce higher prices than an 18-month contract that includes only one winter season.

Reviewing existing municipal aggregation rates from neighboring communities will not necessarily be a reliable indication of what types of supply rates another community pursuing aggregation will receive. The load profile in each municipality is different and wholesale electricity market conditions (and therefore pricing) for electricity supply change continuously. One municipality may have aggregated at a time when wholesale market prices were very low, but this could have changed by the time a neighboring municipality is aggregating.

How do municipalities secure competitive rates?

Does the size of the municipality matter?

Electric supply rates will also not be significantly impacted by the size of the municipality. Historical data shows that municipal aggregations of small towns have sometimes received better electric supply rates than those of large cities (Figure 6). Pricing is driven not by the volume of sales, which would be less for small towns, but by the nature of the load profile, which depends on the split between residential and commercial customers, the load zone, and other factors that are not influenced by the size of the municipality.

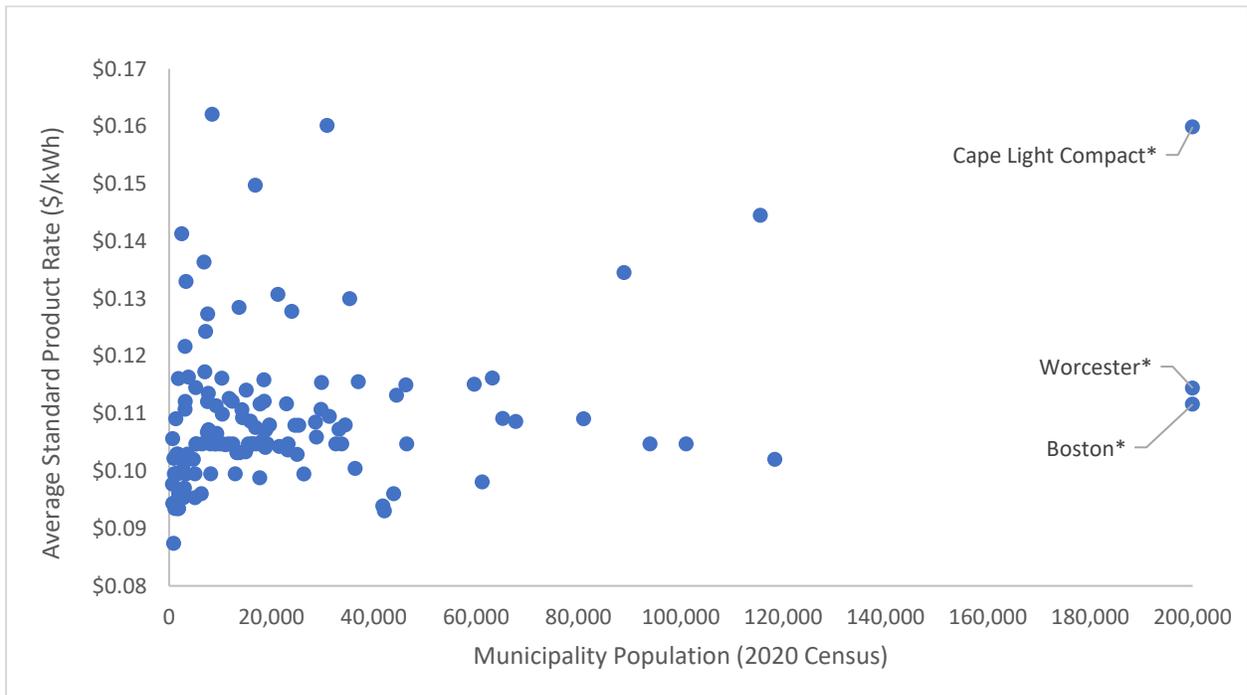


Figure 6. Average Electric Supply Rate (2022) and Municipal Population (2020)

*Boston, Worcester, and Cape Light Compact are grouped as population over 200,000 for readability. The population of Boston was 675,647, Cape Light Compact’s territory was 249,596, and Worcester was 206,528 in 2020.

2.4.1 Comparing Rates to Basic Service

Municipal aggregation and Basic Service rates vary across time and territory; these rates change frequently and rates in the future cannot be guaranteed. A municipality will not be able to guarantee savings from the aggregation compared to basic service in the future because basic service rates will change (Figure 7). This means that when comparing rates, municipal leaders must be aware that an aggregation rate may be lower than basic service when the aggregation starts, but this cannot be guaranteed in the future. It is also important to know that basic service rates are typically higher during winter months (Figure 7), so even if an aggregation rate is advantageous during the winter basic service period, this could change during the summer period.

How do aggregation rates compare to basic service?

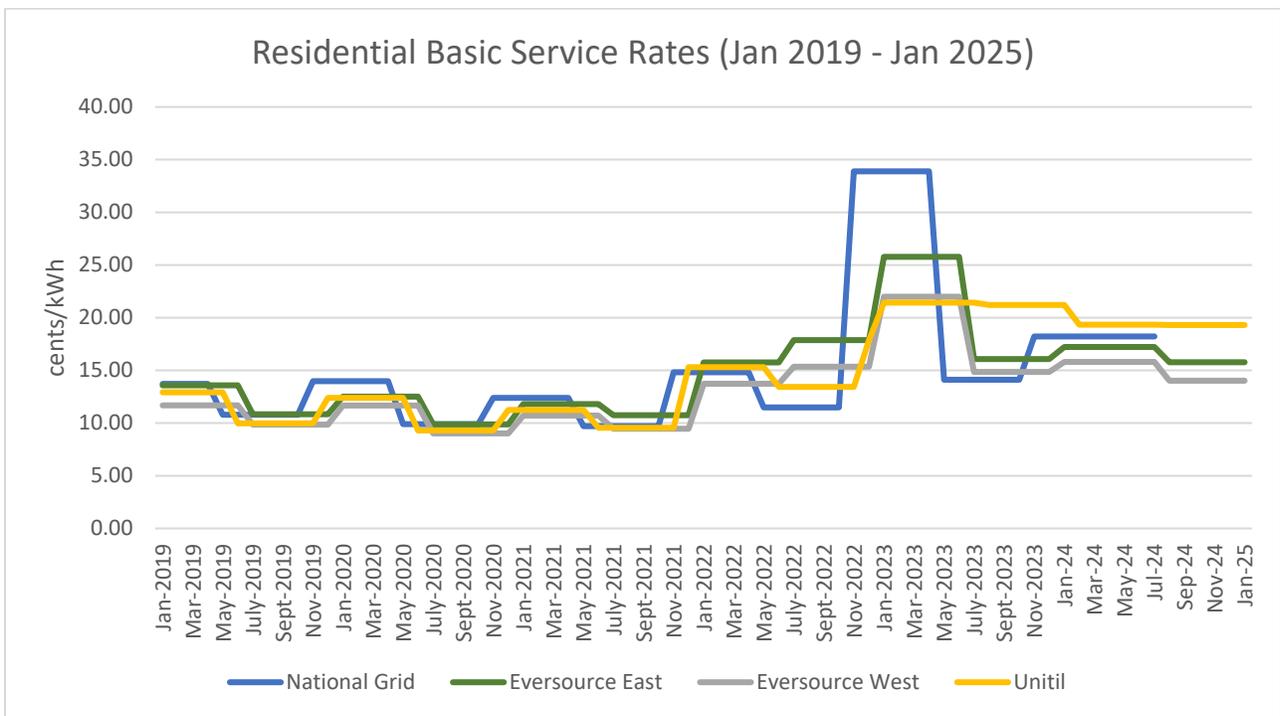


Figure 7. Residential Basic Service Rates (Jan 2019 – Jan 2025)

Additionally, some aggregation rates also include additional renewable energy, so comparing the aggregation rate to basic service may not be an “apples-to-apples” comparison. Based on the most recently available data available for municipal aggregations, in 2022 municipal aggregation rates for the standard product were lower on average than Basic Service rates (Figure 8). As Basic Service rates and municipal aggregation rates vary over time, savings cannot be guaranteed.

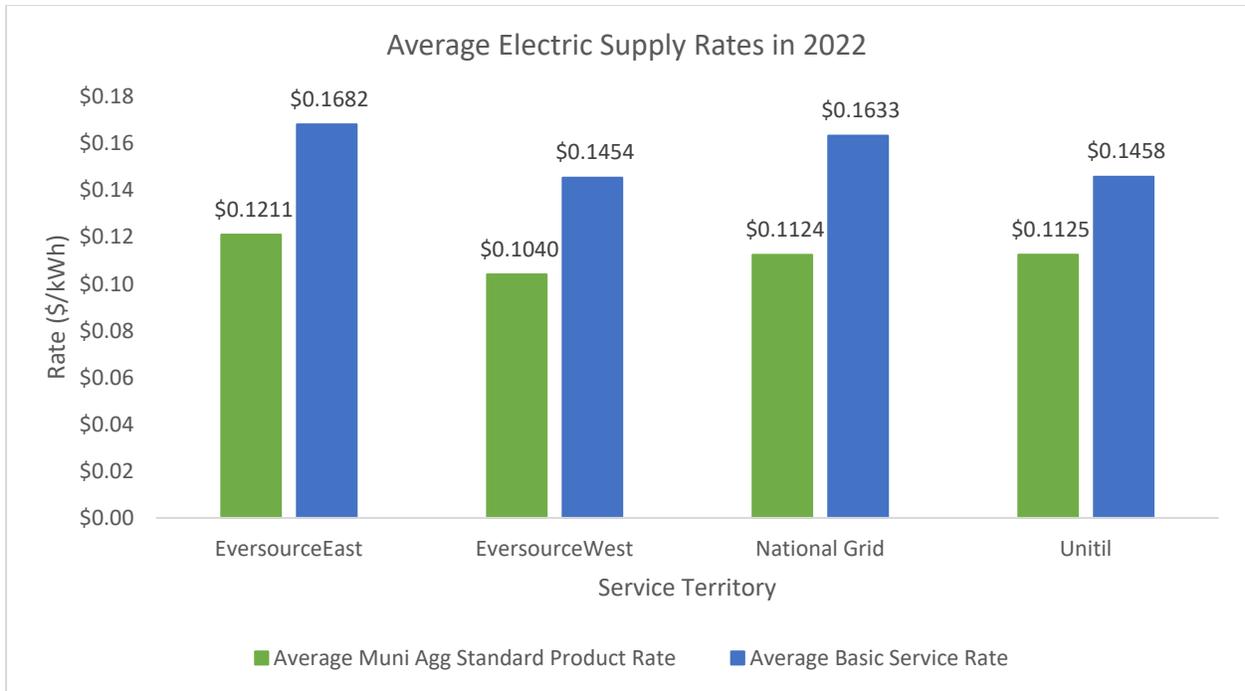


Figure 8. Average Electricity Supply Rates in 2022

Municipal aggregations can also impact Basic Service rates. When the EDCs procure Basic Service supply, they need to procure enough supply to meet the electric load for their expected number of customers. Uncertainty about which towns may launch an aggregation, and therefore remove a large number of customers from the Basic Service supply, can lead suppliers to add a risk premium to the price of Basic Service. This dynamic is especially relevant when large cities like Boston create an aggregation, since they represent such a large share of Basic Service load for an EDC. It is therefore important for aggregations to coordinate with their EDC regarding program launch (see Section 4.4.2). Additionally, the EDCs do not make any profit from Basic Service procurement. When Basic Service rates are higher than municipal aggregation rates, some of this may be explained by the risk premium added to Basic Service rates driven by aggregation uncertainty.

3. Key Considerations for Municipalities Forming or Amending a Municipal Aggregation

This section provides key considerations for any municipality seeking to aggregate or amend an existing aggregation. Key considerations include: use of a municipal aggregation to procure additional renewable energy products to achieve clean energy and climate goals, funding and utilizing an energy manager to assist with the municipal aggregation, working with other municipalities, and how municipal aggregation interfaces with existing programs like Mass Save and the low-income discount program.

3.1 Goal Setting for Municipal Aggregations

Setting goals for a municipal aggregation will help guide a municipality throughout the process of forming and operating an aggregation. Below is a list of potential advantages and challenges for a municipality to consider when establishing goals for a new municipal aggregation or refining goals for an existing municipal aggregation.

Best Practice: Establish clear goals for aggregation early on in the aggregation formation process, refine goals over time, and use the goals to guide decision-making throughout the process of forming and operating an aggregation.

Potential Advantages of Aggregation:

- Aggregation may offer longer-term price certainty in electric supply rates in comparison to basic service.
- Municipalities may want to use an aggregation to achieve clean energy and climate goals by, for instance, increasing the amount of renewable energy in the electricity supply. A common way to do this is by purchasing additional renewable energy (see Section 3.2).
- Municipalities can fund a staff energy manager position through use of an operational adder (see Section 3.3).
- Aggregation may allow residents to achieve the benefits of the competitive electricity market while protecting them from the risks of individual supplier contracts.

Potential Challenges of Aggregation:

- Aggregations cannot guarantee that customers will save money in comparison to basic service. Even if an aggregation rate is below basic service at a given time, basic service rates change every six months so the savings cannot be guaranteed for the future.
- Aggregation requires administrative effort for the municipality, especially to launch, but also on an ongoing basis. Even if using a consultant to assist with the aggregation process, municipal staff will need to allocate resources to launch and maintain an aggregation.
- Some aggregations use administrative fees to pay for aggregation consultants that are paid by participating residents and businesses on an ongoing basis, which is an added cost.

3.2 Advancing Clean Energy with a Municipal Aggregation

Municipalities with the goal of advancing clean energy through aggregation have several options available.¹⁴

3.2.1 Finance New, Local Clean Energy Facilities

Best Practice: Municipalities can collect funds through a rate component to finance and construct local clean energy projects.

The most direct way for municipality to meaningfully contribute to new clean energy generation in Massachusetts is for the aggregation to use a rate component to finance and build new, local clean energy projects like solar arrays. Municipal aggregations have the option to collect and use funds from a rate component, which is a per-kWh fee added to all aggregation sales that is collected by the municipality. A typical rate component amount is \$0.001/kWh on all aggregation sales, which would add up to a charge of about \$7.20 per year for an average residential customer using 600 kWh per month.

One way to finance new clean energy facilities, is for the municipality to apply these rate component funds towards a contract with a third-party who can construct a local solar energy installation on a municipal-owned parcel. The municipality can lease or donate the use of a municipal parcel, for instance a rooftop on a municipal building or a municipal parking lot, as the site of the project. The third-party would agree to construct the solar array on the municipal parcel and would agree through the PPA to a sell the energy and/or Renewable Energy Certificates (RECs) produced by the array to the aggregation, while retaining the benefit of federal tax credits and state level incentives. This PPA would provide the financing necessary for a developer to construct the project and would be a meaningful contribution to new clean energy in Massachusetts. A PPA is one model for clean energy project financing, but municipalities could consider other ownership models including owning their own systems by taking advantage of the new IRS Investment Tax Credit Direct Pay program.¹⁵

In a PPA structure, the aggregation would have to retire the RECs on behalf of aggregation customers for the aggregation customers to receive the clean energy benefits of the project. This means the project would not be able to participate in the SMART solar incentive program in Massachusetts, since the RECs from projects participating in SMART are retained by the EDC and cannot be retired on behalf of aggregation customers. The solar project could instead participate as a net metering facility or a qualifying facility and the aggregation could sell the net metering credits or energy with the municipality returning the revenues back into the rate component fund used to finance the project. In such an arrangement, it is important to note that the municipality is not the owner of the solar facility and the

¹⁴ If the municipality is working with an aggregation consultant, the rate component will be in addition to any administrative fee collected to fund the consultant.

¹⁵ More information about IRS Direct Pay is available at: <https://www.whitehouse.gov/cleanenergy/directpay/>

municipal facility hosting the solar array does not receive the energy or REC benefits of the project, which instead go to the aggregation.

One alternative aggregations can consider when pursuing the use of a rate component to build local clean energy is to allow customers to “opt-up” or “opt-down” in their rate component contribution to the clean energy fund. For instance, customers wishing to pay a price premium for their electricity through the aggregation’s supply contract could pay an additional, higher amount towards the rate component fund than standard product customers. For instance, if some opt-up customers are willing to pay a price premium of 2 cents/kWh for a “green” product, that could generate \$144 per customer per year (assuming a typical customer usage of 600 kWh per month) to the fund for developing new local clean energy resources. Additionally, customers wishing to “opt-down” to a minimum-price product could be offered an aggregation supply product with no rate component contribution to the clean energy fund, giving them the most affordable possible rate.

3.2.2 Funding an Energy Manager

Best Practice: Municipalities can collect a rate component to fund an Energy Manager for the municipality to manage the aggregation.

Municipalities may also consider the use of funds from a rate component to fund an Energy Manager position for the municipality. This can be especially helpful for smaller municipalities that do not have a municipal budget allocated to support such a role on staff. An Energy Manager can help a municipality manage the aggregation program by coordinating with a consultant (if using) and the electricity supplier, responding to inquiries from aggregation customers, conducting public outreach regarding the aggregation, and evaluating and reviewing the success of the program over time.

Energy Managers can also provide other valuable functions for the municipality related to advancing clean energy. However, DPU Guidelines regarding the use of municipal aggregation rate component funds requires that they be used only to fund the share of the Energy Manager’s work that is dedicated to managing the municipal aggregation. For instance, if 50 percent of the Energy Manager’s workload is dedicated to managing the aggregation, 50 percent of their compensation may be funded using aggregation rate component funds. If the municipality has additional funding outside of the rate component available for the Energy Manager, they can pursue additional work to advance clean energy for the municipality’s residents and businesses, including:

- Collecting, analyzing, and reporting on energy data from municipal operations to identify energy-efficient improvements.
- Researching and identifying funding opportunities that align with the municipality's energy goals.
- Acting as the project manager for energy efficiency and renewable energy installations in municipal buildings.
- Educating and engaging with residents and businesses to raise awareness and promote energy-saving initiatives.

3.2.3 Purchasing Voluntary Renewable Energy Certificates (RECs)

Best Practice: Aggregations that wish to include voluntary renewable energy certificates (RECs) in their supply products should purchase Massachusetts Class I RECs and avoid out-of-region RECs.

Municipalities with the goal of increasing the amount of renewable energy in the electricity supply may opt to purchase voluntary Renewable Energy Certificates (RECs). Municipalities may choose to include voluntary RECs in their standard supply products and/or in optional “opt-up” products.

A REC represents the environmental attribute associated with renewable energy production; one REC is created each time a qualified renewable energy facility generates one megawatt hour (MWh) of electricity. RECs are used to track renewable energy production because, due to the physics of the power grid, consumers cannot know where or how the electricity they consume was generated. Because electricity suppliers have an obligation to purchase clean energy based on the consumption of electricity, RECs serve as the market tool for tracking and serving that obligation.

DOER recommends that if municipalities plan to include voluntary RECs in aggregation products, they should only purchase Massachusetts Class I RECs. These RECs meet eligibility criteria established by DOER for the Massachusetts Renewable Energy Portfolio Standard (RPS) and represent verified renewable energy generation in the region. MA Class I RECs are carefully tracked in a regional accounting system to ensure there is no double-counting (so that the same REC is not sold twice). This helps ensure “additionality,” meaning the purchaser of the REC is guaranteed that the REC represents new renewable electricity produced in New England or adjacent regions, and that it complies with the standards the legislature and DOER regulations sets for Class I resources. Importantly, purchasing Class I RECs helps reduce emissions from the electricity sector in the official state emissions accounting system (the “GHG Inventory”). This means that aggregations that purchase voluntary Class I RECs are helping Massachusetts make faster progress towards achieving its emissions reduction goals.

With RECs produced outside the region (national wind RECs from Texas or Iowa, for instance), it is harder or even impossible to ensure additionality and therefore that the municipality’s investment does in fact result in a reduction in emissions. Out-of-region RECs may not be tracked in a rigorous accounting system and may not incentivize construction of new renewable energy. While aggregations that purchase out-of-region RECs may pay less than they would for Massachusetts Class I RECs on a REC-to-REC comparison, the purchase will not necessarily reduce emissions and will not contribute towards reaching Massachusetts emissions goals. In contrast, an aggregation that buys voluntary Class I RECs will be paying for additional renewable energy that does reduce emissions while accelerating progress towards Massachusetts emissions goals.

Deep Dive: RECs and Renewable Energy Policy

For more detailed information about RECs and renewable energy policies in Massachusetts, see Appendix A.

For more information about RECs and municipal aggregation, please refer to chapter 3.2 and Appendix A.

3.2.4 Data on REC Products in Massachusetts Municipal Aggregations

Data from municipal aggregation annual reports analyzed by DOER illustrates the renewable energy products offered by municipal aggregations. In 2022, 42% of municipal aggregations in Massachusetts included voluntary Class I RECs above the amount required by the RPS in their standard supply product (Figure 9). Additionally, 60% of municipal aggregations offered participants the choice to enroll in an optional “opt-up” supply product that included voluntary Class I RECs (Figure 10). Across municipal aggregations in Massachusetts, 2.63% of participants chose to “opt up” in 2022.

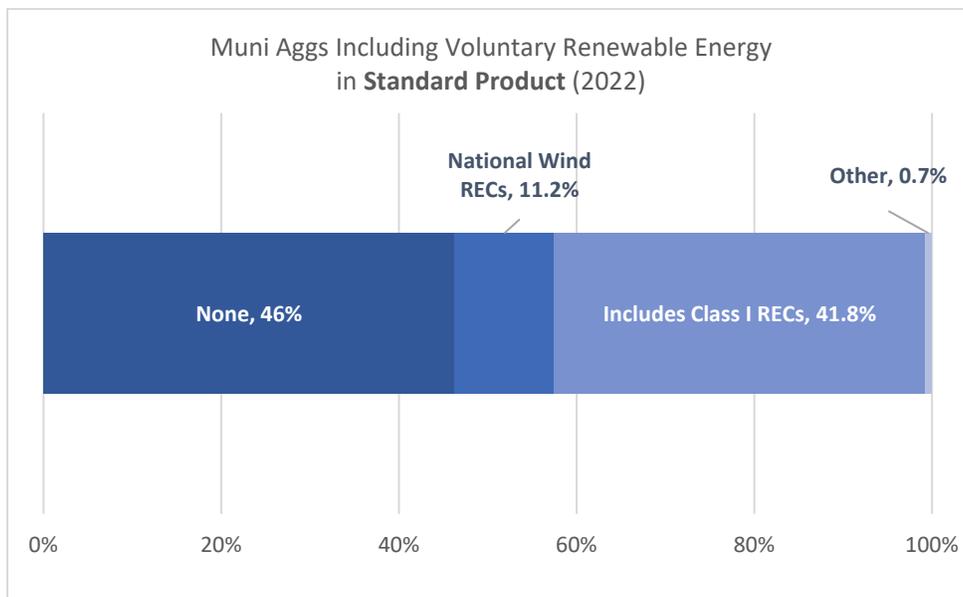


Figure 9. Voluntary RECs in Standard Products

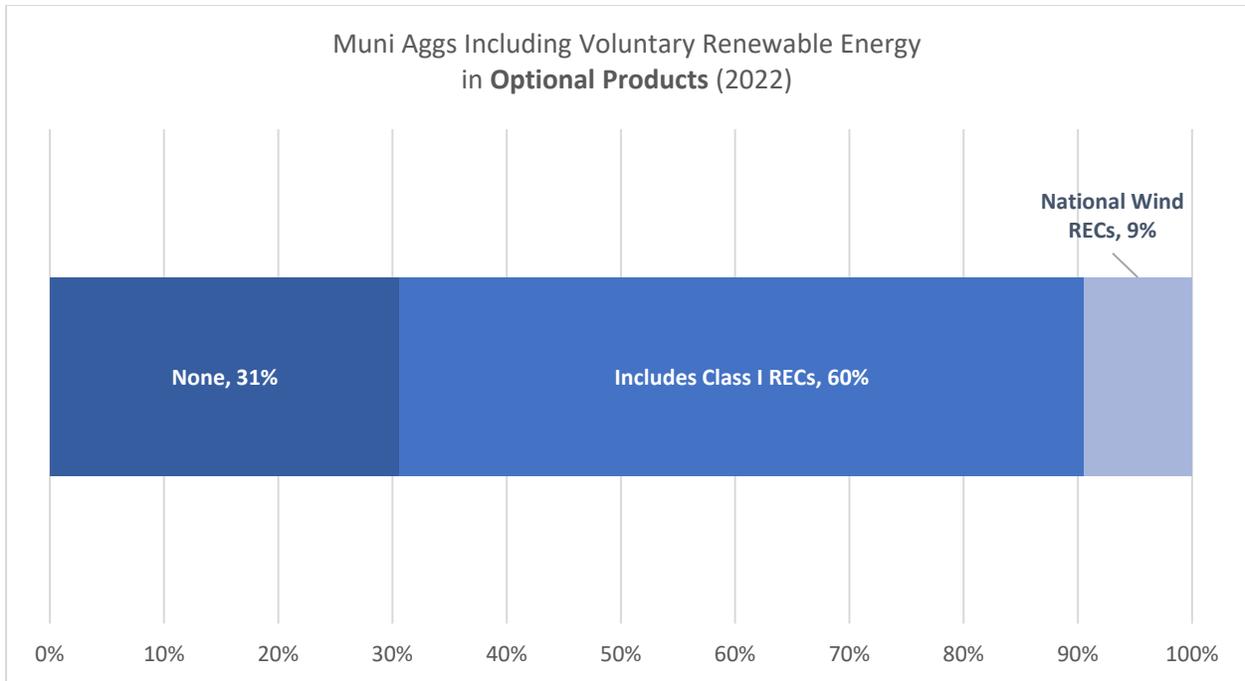


Figure 10. Voluntary RECs in Optional Products

In 2022, customers participating in municipal aggregations retired over 712,000 voluntary Class I RECs, which represents about 9% of the estimated RECs for RPS requirements and is equivalent to raising the RPS requirement by 1.7 percentage points. This additional purchase of renewable electricity saved over 304,000 metric tons of CO₂ emissions from the electric grid, the equivalent of taking over 66,000 cars off the road.

On average, the standard products offered by Massachusetts’ municipal aggregations in 2022 that included additional Class I RECs generally had a minor price premium compared to standard products that do not include additional RECs (Figure 11). These standard products had, on average, 13% additional Class I RECs over the amount required by the RPS. The most common amount of additional RECs in standard products was 5%. Optional aggregation products with 100% Class I RECs had a greater price premium compared to standard products.

Even optional products with 100% MA Class I RECs had average rates (0.137 \$/kWh, see Figure 11) that were lower than Basic Service in 2022 (minimum 0.145 \$/kWh, see Figure 8). Municipal aggregation standard products containing only the amount of renewable energy required by the RPS (no additional voluntary RECs) had lower rates than products with additional RECs, and optional products with 100+% Class I RECs were more expensive on average than other offerings (Figure 11). Based on these averages in 2022, the difference in rates between the RPS minimum products and the optional 100% Class I REC products would add up to about \$16.92 per month for an average residential customer consuming 600 kWh per month.

Municipalities should note that RECs are a market product and the price of RECs varies over time, so the price differences shown here are illustrative only of recent market conditions and are subject to change (see Appendix A: Renewable Energy Policies and RECs for more on REC prices). Municipal aggregations

submit the rates they offer for standard and optional products, as well as information about REC content, in the annual reports they submit to the DPU (available [here](#)).

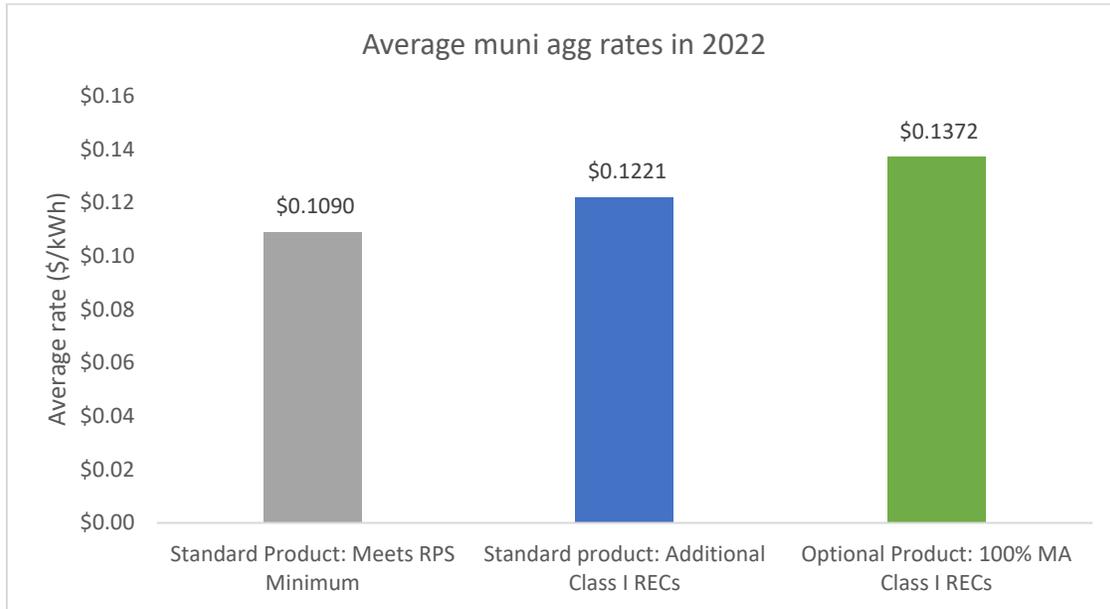


Figure 11. Average Rates for Muni Agg Products with Voluntary RECs

3.2.5 Pursuing Clean Energy and Climate Goals Beyond Aggregation

Aggregation is not the only way to advance clean energy goals for a community. Many municipalities are interested in installing electric vehicle charging facilities, funding energy efficiency upgrades for residents, or deploying other programs to advance their climate goals and benefit residents. Massachusetts has a variety of impactful and cost-effective clean energy and energy efficiency programs that municipalities can pursue and participate in to reduce their emissions and save residents money that fall outside of the municipal aggregation, including weatherization programs, electric vehicle infrastructure, and other key initiatives supported by the DOER, Mass Save, and other state programs. In addition to exploring options for renewable energy supply through aggregation, municipalities should discuss these other options for pursuing clean energy and climate goals at the municipal level with their Green Communities Regional Coordinator (See Appendix D for contact information).

Best Practices for Advancing Clean Energy in Aggregation

The most meaningful way that aggregations can advance clean energy in Massachusetts is to directly finance new, local clean energy projects using a rate component. Although the purchase of RECs may allow municipalities to make a claim of providing “100% renewable” electricity supply for customers, DOER urges municipalities interested in advancing clean energy to consider using rate components to finance local clean energy projects as the most direct and meaningful way to increase clean energy generation in Massachusetts. While RECs provide an important long-term revenue source to help support new renewable energy projects, because of the market price variability, RECs alone are not as strong of a financing option as a PPA. Harnessing the price premium that environmentally-conscious consumers may be willing to spend for a 100% renewable product using voluntary RECs could become meaningful contributions to a fund to develop local clean energy projects.

3.3 Working with Other Municipalities

Many municipalities are interested in learning from and collaborating with neighboring cities and towns regarding municipal aggregation. While information sharing about aggregation is common between municipalities, multi-town aggregation itself is rare, although not unprecedented. As of 2023, there are two operating multi-town aggregations: the Cape Light Compact (CLC), which was established in 1997 and includes 21 towns on the Cape and Islands; and Valley Green Energy, which was established in 2023 and includes Northampton, Amherst, and Pelham. Creating and maintaining a multi-town aggregation may require creating a governance structure like a Joint Powers Entity (JPE) or a Memorandum of Understanding (MOU), which is a separate process from filing a municipal aggregation plan.¹⁶

A unique feature of CLC as a municipal aggregation is also that they are a Program Administrator (PA) for the state’s Mass Save energy efficiency programs.¹⁷ Becoming a PA is a substantial and separate effort from undertaking municipal aggregation with significant and time-consuming regulatory steps required by the DPU, which must review and certify a town or JPE as a PA. CLC is currently the only municipal aggregation that has received DPU approval to become a Mass Save PA, and it operates a Mass Save program for all residents and businesses within its member municipalities. All other municipal aggregations continue to use their Distribution Company to administer Mass Save for their residents.

Another way some towns are joined in the aggregation process is with buying groups through their consultant. Some consultants conduct simultaneous procurements for supply contracts on behalf of multiple aggregations at once, resulting in the same contract price for multiple towns. Even with this type of buying group, however, each municipality is still required to file its own municipal aggregation plan with the DPU and is considered a separate aggregation. Additionally, small towns are not

¹⁶ A JPE is a specific legal structure allowed under Massachusetts law, M.G.L. c. 40, §4A. Municipal counsel may be able to provide more information about a JPE.

¹⁷ More information about Mass Save: <https://www.masssave.com/en/about-us>

necessarily at a disadvantage in terms of the pricing they receive in an energy supply procurement, since pricing is largely driven by factors other than size (see Section 2.4).

In sum, most municipalities seek to meet their goals for a municipal aggregation by forming and operating a single-town municipal aggregation since this is the simplest option. However, Cape Light Compact is a long-standing multi-town aggregation in Massachusetts that also administers Mass Save energy efficiency programs for its residents. Pursuing this type of multi-town aggregation with control over energy efficiency programs requires substantial additional legal and regulatory processes to implement which are not covered in this guide.

3.4 Impacts of Aggregation on Other Electricity Programs

There are many existing electricity benefit programs administered by the EDCs that will continue to be available to customers in a municipal aggregation. It is important for the municipality to communicate about how aggregation will not impact these other programs to avoid confusion.

3.4.1 Low-Income Customer Programs

Bill discounts for qualified low-income residents and arrearage management plans (AMP) administered by the EDCs will continue to be available to customers on the aggregation. Bill discount programs typically offer a flat percentage discount (e.g., 30%) on a customer's total monthly bill amount (i.e., both delivery and supply). If a qualified low-income customer switches from basic service to a municipal aggregation for their electricity supply, the customer will continue to receive the same discount. The low-income customer's electricity supply rate will reflect the aggregation rate, but they will continue to receive the discount percentage applied to their total monthly bill amount. The customer will also continue to be eligible to enroll in an AMP to help customers pay down their arrears through scheduled payment programs while accessing arrears forgiveness.

Learn More: Energy Burden for Low-Income Households

The term "energy burden" refers to the share of household income spent on energy. Low and moderate income households tend to have a higher energy burden because utility bills represent a larger share of their household expenditures. A joint report on [Affordable Access to Clean and Efficient Energy](#) from DOER and partner agencies found that households at or below the federal poverty level in Massachusetts spent an average of 10% of household income on home heating, compared with 2-3% for the average household. Maintaining affordable electricity rates and pursuing energy efficiency improvements that can reduce energy demand are key measures to reduce the energy burden, especially for low-income populations.

3.4.2 Access to Mass Save Energy Efficiency Programs

Customers participating in a municipal aggregation will continue to have full access to Mass Save energy efficiency programs administered by the EDCs. The EDCs collect funds for Mass Save through delivery

charges from all customers, including those on municipal aggregation. Participating in the aggregation will not impact eligibility for any Mass Save programs and residents and businesses will continue to work with the EDC for Mass Save programs. One municipal aggregation in Massachusetts, Cape Light Compact, administers Mass Save programs on behalf of its residents and businesses (See Section 3.4 for more information on this).

3.4.3 Net Metering Customers

Net metering is a program that allows residents and businesses with solar or other renewable energy facilities to offset their electricity use and transfer electricity back to the grid in exchange for a bill credit. Residents who are participating in net metering programs through their EDC will continue to receive net metering credits when they join a municipal aggregation. The net metering credit will remain unchanged and continue to be based on the basic service rate. This means that if a net metering customer participating in the aggregation generates more electricity than they use in a billing period, they will receive a net metering credit based on the basic service rate not the aggregation rate. If the customer uses more electricity than they generate, they will be billed at the aggregation electric supply rate for the amount they consume.¹⁸

3.4.4 Technology Advancements & Time Varying Pricing

The EDCs in Massachusetts have approved plans to deploy next-generation electric meter technology (“Advanced Metering Infrastructure,” or AMI) over the coming years. Some municipal aggregations may seek to use AMI once deployed to offer time varying rate pricing models to participants. For instance, time varying rates could incentivize charging of electric vehicles when electricity costs less to purchase on the wholesale market (like overnight) or incentivize shifting electricity consumption away from high use periods. Time varying pricing models may help provide some participants of a municipal aggregation the opportunity to reduce their electricity costs in the future.

¹⁸ More information on net metering is available at the DPU website: <https://www.mass.gov/service-details/net-metering-eligibility>

4. Forming an Aggregation

This section explains each step a municipal aggregation will take when forming an aggregation, providing recommended best practices along the way. The steps are provided in chronological order based on both the statutory requirements for how aggregation formation must proceed and based on DOER's recommendations for best practice in forming an aggregation. This guide has identified statutory requirements and municipalities may choose to vary the exact order of other steps presented here.

4.1 Initiate

4.1.1 Information Gathering & Initial Community Input

Municipal leaders should familiarize themselves with the aggregation process and options for structuring an aggregation by engaging in information gathering and research before pursuing a municipal aggregation through a municipal vote. Reviewing this guide is a good first step in this process. Other important steps in the research process can include:

- Talk to similarly-situated municipalities that have aggregated and DOER Green Communities Division, who can help identify contacts.
- Talk with key stakeholders in the community, including residents and governing boards and officials to begin to explain the municipal aggregation option and gather stakeholders' initial questions, concerns, or suggested goals for aggregation.
- Regional Planning Agencies can also be a helpful resource when researching municipal aggregation. See Appendix D: Additional Resources for links to RPAs.

Best Practice: Talk to other municipalities that have aggregated, regional planning agencies, and key municipal stakeholders to gain information and different perspectives on the aggregation process before deciding to aggregate.

4.1.2 Identify Goals

Determine the municipality's individual goals for aggregation. Although goals may undergo refinement throughout the process, establishing goal from the start will help guide the municipality in its decision-making during the development of the municipal aggregation plan. For instance, if reducing emissions and promoting renewable energy is a key goal for the municipality, this is important to establish early to guide decision-making. Alternatively, if a community decides that price certainty and affordability are key goals, this will inform decision-making regarding education, outreach, and supply procurement. Review Section 3.1 to understand the different goals that municipalities may pursue through aggregation.

4.1.3 Consultation with DOER

Before submitting a municipal aggregation plan to the DPU, the law requires municipalities to consult with DOER.¹⁹ This step consists of municipal officials and their consultant (if applicable) meeting with

¹⁹ M.G.L. Chapter 164 Section 134: [General Law - Part I, Title XXII, Chapter 164, Section 134 \(malegislature.gov\)](http://malegislature.gov)

DOER prior to public review of the plan (as set forth below) to discuss DOER's Best Practices for Advancing Clean Energy in Aggregation. These Best Practices may be updated by DOER periodically and are available at the DPU website.²⁰ The goal of the consultation is to discuss the municipality's goals for clean energy in aggregation, if any, and provide technical assistance regarding DOER's recommended Best Practices. After the consultation, DOER provides a letter to the municipality certifying that the required consultation took place, which is submitted to the DPU along with the municipal aggregation plan. The DOER consultation does not guarantee approval of a municipal aggregation plan by the DPU, and DPU's review of any municipal aggregation plan is to ensure that the plan complies with the law and provides consumer protections.

4.1.4 Municipal Vote²¹

A municipal vote is required by law to initiate a municipal aggregation.²² Typically the vote is a high-level authorization that allows the municipality to proceed with development of the municipal aggregation plan and to seek approval from the DPU. The municipal vote is non-binding: a municipality that votes to pursue aggregation is not required to follow through to developing a plan or signing a supply contract.

The municipal vote is also often an opportunity for community education about aggregation and the municipality's goals. Municipal leaders may wish to prepare a presentation and publish materials for public review in advance of the vote. Note that all materials presented will need to conform to DPU language access requirements (see Section 4.3.2 for more on outreach methods).

Municipalities should consult with town counsel regarding the necessary procedures to put municipal aggregation forward for a municipal vote.

4.1.5 Evaluate Consultant Options

Although not required, municipalities commonly choose to engage a consultant who will work as an electricity broker to assist in the aggregation, formation, and operation process. Consultants may help with a variety of tasks, including but not limited to, the development of a municipal aggregation plan, communication and outreach to residents, soliciting bids and negotiating an electric supply contract, monitoring the supply contract, and providing customer service during the operation of the aggregation. However, municipalities may consider whether an Energy Manager or other municipal staff have the technical expertise to run an aggregation without the services of a consultant.

If interested in working with a consultant, municipal leaders should consider consulting with other municipalities that have used a consultant to learn from their experience (search the [DPU File Room](#) for "Municipal Aggregation Plan" to view municipalities that have recently aggregated). DOER recommends meeting with more than one consultant that provides municipal aggregation services to understand how the process would work before making a contractual decision. Appendix B of this guide provides examples of questions to ask prospective consultants. Initial conversations with consultants do not have to be binding and municipal leaders can choose how to proceed after initial conversations.

²⁰ Available at: <https://www.mass.gov/doc/doer-recommended-best-practices-for-advancing-clean-energy-in-municipal-aggregation-plans/download>

²¹ In some cases, a municipality may evaluate consultant options before executing a municipal vote.

²² See M.G.L. Chapter 164 Section 134: [General Law - Part I, Title XXII, Chapter 164, Section 134 \(malegislature.gov\)](#)

Municipalities should also consider issuance of a competitive Request for Proposals (RFP) even if it is not required by municipal laws. The RFP should be clear and concise and request only relevant information that could help differentiate between consultants. Municipalities should discuss the consultant’s recommendations regarding purchasing voluntary renewable energy, if that is a goal of the town, to see how the consultant evaluates Class I RECs compared to other RECs. Reviewing Sections 2.4, 3.2, 4.3.2, and 4.4.4 of this guide in particular and the example questions for consultants in Appendix B can help during preparation of an RFP.

Paying for a Consultant: Consultants typically request to be paid through an administrative fee added to electricity rates for the aggregation. This means all aggregation customers, including low-income customers, pay for the consultant services as a fee on their monthly bills. As an alternative, municipalities may also consider paying for consultant services with municipal funds through an upfront payment instead of through an ongoing ratepayer fee.

DOER analysis of municipal aggregation annual reports shows that nearly all municipal aggregations active in 2021 included a consultant fee of \$0.001/kWh. Exceptions include Cape Light Compact, which does not use a consultant but collects a \$0.001/kWh fee for its own operations, and the City of Cambridge, which had a lower than average consultant fee of \$0.00075/kWh. The total amount of consultant fees paid by municipal aggregation customers in Massachusetts in 2021 was approximately \$7.8 million (Table 3). Since consultant fees are collected based on the amount of electricity consumed, small towns generally paid less over the course of a year than larger municipalities because they have a smaller population and less electricity demand.

Total Consultant Fees Paid by All Customers in 2022	\$ 7,208,098.44
Total Operational Adder Fees Collected by Muni Aggs in 2022	\$ 3,045,346.08
Total Muni Agg Fees Paid in 2022	\$ 10,253,444.53
Average Consultant Fees Paid Per Muni Agg in 2022	\$ 76,518.24

Table 3. Fees Paid by Municipal Aggregation Customers in Massachusetts in 2022

Municipalities should consider the fee amount and duration of the consultant contract relative to the services provided by the consultant. Much of the consultant work will be prior to the launch of the aggregation, while ongoing operational costs are likely to be relatively low. If using a fee to pay for consulting services, the consultant contract would need to extend beyond the launch period. DOER has provided a sample calculation of consultant fees in Appendix C. Some municipalities may also wish to consider alternative payment structures for consultant services, including using existing municipal funds to pay for consultant services upfront.

Additionally, the municipality may be interested in including an operational adder to fund a staff Energy Manager position for the municipality (see Section 3.3). If this position already exists, the Energy Manager may be able to launch the aggregation. In assisting with an aggregation, the Energy Manager need not be compensated through an operational adder. However, the aggregation may not fund an Energy Manager position to perform tasks unrelated to the aggregation.

Best Practices for Evaluating Consultants

- If considering working with a municipal aggregation consultant, talk with other municipalities that have used a consultant to learn from their experience.
- Meet with more than one consultant where feasible and consider issuing a competitive RFP prior to entering into a contract. DOER's list of recommended questions for prospective consultants may assist in facilitating meetings (see Appendix B).
- Understand the impact of consultant fees on participants of a municipal aggregation by estimating the fees using DOER's sample calculator (see Appendix C). Consider alternative payment structures that do not require a ratepayer fee.

4.2 Plan

4.2.1 Develop an Aggregation Plan

The aggregation plan is the core document outlining the details of the proposed aggregation. Developing the aggregation plan will require the municipality to make key decisions about the aggregation. Some of those key decisions have already been discussed and include the goals of the aggregation, what supply products will likely be offered (pending the outcome of a future competitive solicitation for electricity supply), the use of an administrative adder to fund a consultant, the use of an operational adder to fund an energy manager, and future communications and outreach plans.

Aggregation plans must be reviewed and approved by the DPU, the state regulatory agency with oversight over the electricity industry. By law, a municipal aggregation plan must include:²³

- An organizational structure of the program, its operations, and its funding;
- Rate setting and other costs to participants;
- The methods for entering and terminating agreements with other entities; and
- The rights and responsibilities of program participants.

4.2.2 Municipal leaders should consult with counsel and with their municipal aggregation consultant (if applicable) to ensure the municipal aggregation plan meets all applicable statutory and regulatory requirements. Citizen Review of Plan

Before filing a municipal aggregation plan at the DPU, the municipality must allow for citizen review of the plan. This is an opportunity for public education and outreach about aggregation and can be done through public posting of the plan materials and public meetings to answer questions and receive comments. Consult with town counsel or the aggregation consultant (if using) to ensure the citizen review process meets DPU requirements.

²³ M.G.L. Chapter 164 Section 134: [General Law - Part I, Title XXII, Chapter 164, Section 134 \(malegislature.gov\)](http://malegislature.gov)

If part of the aggregation plan is to offer products with additional RECs, this public review stage can also be an opportunity for municipal leaders to gauge what specific level of voluntary REC purchases the community wishes to pursue (for instance, 5% for the standard product and 100% for an optional product). The specific REC purchase decisions will be made during the supply procurement stage (see Section 4.4.1).

4.3 Review

4.3.1 Submit Plan to DPU for review

Pursuant to G.L. c. 164, § 134(a), a municipality shall submit its plan to the DPU for review and approval. DPU will convene a public hearing regarding the municipal aggregation plan to allow members of the public to comment on the municipal aggregation plan. The DPU may schedule a conference with the municipality or its representative to discuss any aspect of the plan that may need revision or clarification. The DPU may request supplemental information to better determine whether the plan complies with the statutory requirements addressed in the Municipal Aggregation Guidelines. The DPU will include a specified municipality official(s) on all correspondences. The DPU will issue a written Order with its decision on all plans within 120 days of the date on which a plan was filed, except as discussed below. If, upon review, the DPU finds that a plan includes the information requirements set forth in the Guidelines above (including supplemental information provided by the municipality at the request of the DPU), the DPU will approve the plan as filed. Conversely, if upon review, the DPU finds that a plan does not include the required information (including supplemental information requested by the DPU), the DPU will not approve the plan and will identify the information the plan must include to warrant DPU approval. The DPU's review of a plan submitted by a municipality that previously terminated its DPU-approved program may exceed 120 days, reflecting the fact that the DPU may need additional time to investigate whether (1) the plan sufficiently explains the circumstances that led to the termination, and (2) the steps the municipality has taken to protect against another termination are sufficient.

It is the responsibility of the municipality to become familiar with the DPU's Guidelines²⁴ for municipal aggregation plans.

4.3.2 Community Outreach and Education About Electricity Supply Prior to DPU Approval

While the aggregation plan is under review by the DPU, municipal leaders can begin outreach and education efforts to increase general awareness and understanding of electricity supply options in the community.

If residents are aware of and understand the basics of the electricity supply market, including basic service and competitive supply, they will be better equipped to make the choice between automatic enrollment or opting out. Once the DPU approves an aggregation plan, municipal leaders will be busy conducting the energy supply procurement and initiating program enrollment. Therefore, it is advantageous to conduct this type of basic electricity education and outreach during the DPU review

²⁴ <https://www.mass.gov/info-details/municipal-aggregation#municipal-aggregation-guidelines->

stage. However, at this stage, the municipality should wait to conduct education and outreach on the actual aggregation plan itself until after it receives DPU approval of the plan.

Municipalities can review sample outreach materials used by other municipal aggregations by reviewing recently approved aggregation plans from the DPU.²⁵

Basic Energy Bill Education: Municipal leaders can leverage their existing outreach and communication tools to help educate residents about electricity supply. One method that some municipalities have found effective is to host “Bring Your Bill” events to walk through electric bills with residents. At these events, municipal staff, consultant staff, or volunteers can help walk through an electric bill with residents to answer questions and explain the different sections of the bill and what they represent. These events can take place in-person, for instance by tabling at popular community events or at town/city hall, or virtually as a drop-in session using online meeting tools. Section 1 of this guide provides some background information on electricity supply and billing that could inform this type of outreach campaign, but the municipality will need to seek additional educational resources from the local EDC, the municipal Energy Manager (if applicable), an aggregation consultant, and other sources.

Customers on Competitive Supply: This type of outreach campaign is also an important opportunity to help educate residents about the potential risks of the individual competitive supply market. As outlined in Section 1.2, a majority of residential customers on individual competitive supply contracts have experienced substantial consumer losses in recent years. Some residents may not be aware that they are on a competitive supply contract or the terms of the contract, which may include auto-renewal, variable monthly rates, or early termination fees. The municipality can help by walking through electric bills with residents and answering questions about how to understand electricity supply contracts.

Customers on individual supply contracts are not eligible to participate in municipal aggregation until their contract term expires or they terminate their existing contract (which may require paying a fee), so doing this education campaign early may also help enable more residents to eventually participate in the aggregation if they wish. Customers can terminate their competitive supply contracts, although doing so may require paying early termination fees.

Increasing energy literacy in the community will also serve to defend residents against predatory marketing by competitive suppliers. Competitive suppliers may market to residents using telemarketing, door-to-door marketing, and other tactics. Since competitive suppliers have been shown to target marketing to vulnerable populations, it is important to tailor education and outreach efforts to groups in the community that may be at risk, for instance low-income residents, senior citizens, or residents with low English proficiency.

²⁵ To view recent DPU dockets for review of municipal aggregation plans, visit the [DPU File Room](#) and select “Municipal Aggregation Plan” under “Case Type.”

General Best Practices for Community Outreach and Education

- The demographics and context of each municipality are unique, so the outreach and communications plan must be specifically tailored to the needs of the local population and should build on the municipality’s existing language access and communication protocols.
- Municipal leaders can plan to use social media, including local Facebook groups run by community members, to spread messages digitally.
- Local radio and TV stations can also be a helpful way to expand outreach in the community.
- Municipal leaders can conduct outreach at existing community hubs, for instance senior centers or local fairs.
- Engaging with trusted community leaders, for instance faith leaders or representatives of local community groups, can also help to reach community members.
- Ensure that any outreach materials that mention aggregation comply with the language requirements approved by the DPU. Town counsel or the aggregation consultant (if using) can help to ensure compliance for communications materials.

Best Practices for Community Outreach and on Aggregation and Electricity Basics Prior to DPU Approval:

- Begin an education campaign while the aggregation plan is under review at the DPU to inform residents about electricity supply options and warn residents about the risks of individual competitive supply contracts.
- Host “Bring Your Bill” events, or use other outreach methods the municipality has found effective to communicate with residents.
- Use diverse outreach methods and tailor communications to at-risk populations (e.g. senior citizens or residents with low English proficiency)

4.4 Launch

4.4.1 ESA Solicitation and Supply Procurement

Once the DPU approves the municipal aggregation plan, the municipality can begin preparations to implement the plan by procuring electricity supply. This requires contracting for the electricity supply by issuing a competitive solicitation for an Electric Service Agreement (ESA).

The ESA solicitation will specify the type of electricity product(s) the aggregation will offer, for instance if the supply product will include additional renewable energy certificates (RECs) (see Section 3.2 for more on RECs). The ESA will also specify what types of customer service the supplier will provide.

A consultant may help a municipality issue a competitive solicitation for an ESA. Although a consultant can help the municipality with the process, any competitive solicitation will produce bids that reflect the current market conditions because electricity supply is a competitive marketplace. Refer to Section 2.4 for information about the drivers of aggregation rates and how to compare rates to basic service.

Note on market volatility: The pricing an aggregation will receive depends largely on market conditions which are outside the municipality's control. For example, in 2022, the Russian invasion of Ukraine created a spike in natural gas prices and as a result, electricity market prices in New England were much higher than historical averages. Aggregations that solicited ESAs during this time faced higher prices than they may have expected a year prior.

4.4.2 Coordination with EDCs and Updates to DPU

The EDCs are still involved in providing electricity service to residents even after a municipality aggregates. The EDCs continue to provide customers with a single electric bill and the EDCs continue to collect the Delivery charges from customers. It is important for municipalities to coordinate with their EDC regarding the aggregation launch to ensure a smooth transition of customers.

Where feasible, municipalities should coordinate the planned timing of their aggregation launch with the EDC because it may have implications for the EDC's basic service supply procurement. Uncertainty around the timing of an aggregation launch, especially for larger municipalities, could lead to risk premiums in the supply rates for basic service customers. To avoid negative impacts for basic service customers in the municipality, it is important to reach out to the EDC early on to discuss timing of the aggregation launch.

Best Practice: Reach out to the local EDC prior to finalizing plans for the aggregation launch to coordinate on timing and reduce the risk for basic service customers. This is especially important for larger cities undergoing aggregation.

4.4.3 Opt-out Period

There is a mandatory 30-day opt-out period before an aggregation can launch, during which the municipality sends out mailers to residents giving them the opportunity to decline to participate if they wish. Suppliers can submit enrollment on the 37th day, as three days before and after the opt-out period are allowed for the mailing of notices. The EDC will provide the municipality with a list of residents receiving basic service supply (i.e., the residents who are eligible to be auto-enrolled in the aggregation). Residents who opt-out of the aggregation will remain on basic service. Residents can also opt-out of the aggregation at any time after joining it with no penalty and return to basic service.

The opt-out structure of municipal aggregation can introduce confusion and sometimes frustration for residents, so it is important to communicate clearly with residents about the mechanics of the opt-out process (see next Section 4.4.4). Explain that the default will be to enroll any residents currently on basic service into the aggregation program, but that it is free to opt-out and residents can opt-out prior to the launch or at any time after. Provide multiple mechanisms for residents to opt-out, including by mail, phone, or online. Explain that any residents currently on an individual competitive supply contract do not need to opt-out, as they cannot be auto-enrolled or join the aggregation until their contract ends.

Best Practice: Communicate clearly about the opt-out process to avoid confusion or frustration among residents. Provide multiple, accessible ways to opt-out.

When the opt-out period ends, existing basic service customers who have not opted-out will be automatically enrolled in the standard aggregation product and will begin seeing the aggregation rate on the supply portion of their monthly electric bill. Customers who chose an optional product will be enrolled in that product rather than the standard product. The EDC will continue to provide a single monthly bill to all participating aggregation customers.

4.4.4 Information Campaign About Opt-Out and Enrollment

It is crucial for the municipality to have a thorough and detailed strategy for outreach and communication to residents about the aggregation launch, including the opt-out period and enrollment process. The municipality will be at an advantage conducting outreach at this stage if municipal leaders (and a consultant, if using) have already undertaken an early general education campaign about electricity supply options during the period when the plan was undergoing DPU review (see Section 4.3.2). An early education campaign will help ensure residents are aware of what electricity supply they currently receive and will be better prepared to understand the new aggregation option during this outreach period.

Both in-person and virtual engagement tools can be used to inform the public about the aggregation, what the supply products are, when automatic enrollment will occur, and what the opt-out process is. Refer to the “General Best Practices for Community Outreach” in Section 4.3.2 for additional recommendations regarding outreach methods. As with all communications, ensure materials comply with DPU language access requirements. For instance, make clear in all communications that savings are not guaranteed whenever aggregation rates are discussed.

Municipal Points-of-Contact: The municipality should aim to ensure there are municipal staff available as points-of-contact for residents with questions about municipal aggregation. Even for municipalities working with a consultant, the municipality is still likely to receive questions directed at staff and it is important to make clear who on municipal staff can field these questions. The municipality should establish a phone number for residents to use to contact staff with aggregation questions.

Impacts on Other Programs: Residents may have questions about how aggregation will affect other energy programs, for instance bill discounts or energy efficiency programs (refer to Section 3.5). It will be important to communicate clearly how these programs are different, and also how (if at all) aggregation will impact them.

Competitive Supplier Targeting: Residents may be targeted by marketing from individual competitive supply companies during the aggregation launch period. Some municipalities have reported competitive suppliers using misleading marketing tactics that wrongly suggest they represent the municipal aggregation, which can confuse residents and undermine the successful launch of the aggregation. To help protect against misleading marketing tactics by competitive suppliers, municipal leaders should ensure official communications about the aggregation include clear indications of the municipality's involvement, for instance the city/town seal or the Mayor's signature.

Ineligible Customers: Customers that have an existing contract for competitive electricity supply are not eligible to be auto-enrolled in the aggregation. The municipality should also make clear in any general outreach to competitive supply customers that they may be subject to penalties or early termination fees if they switch to the aggregation program before their competitive supply contract term is over. The municipality should educate all residents about the difference between the municipal aggregation and individual competitive supply contracts. An early outreach campaign about electricity supply options during the DPU review stage (see Section 4.3.2) can help avoid confusion during the enrollment period.

Best Practices for Information Campaign About Enrollment

- Ensure official communications about the aggregation include clear indications of the municipality's involvement, for instance the city/town seal or the Mayor's signature, to avoid confusion with marketing materials from competitive suppliers.
- Clarify how aggregation does or does not impact other energy programs (i.e. Mass Save or net metering).
- Ensure all communications are consistent with DPU requirements.
- Create clear points-of-contact for residents to contact municipal staff with questions about the aggregation.

5. Operating an Aggregation

5.1 Customer Service

Once the aggregation has launched and is actively providing electricity supply service to participating customers, customer service responsibilities may be split between the municipality, consultant (if using), and supplier. These arrangements vary depending on the agreements made between the municipality and the supplier, and the municipality and the consultant (if using). In some cases, the supplier or consultant will operate a toll-free number to field questions about the supply products and process customer requests to join, leave, or opt-up to an optional supply product.

Aggregation customers are free to join, leave, or switch to different aggregation products at any time. Changes go into effect based on when the meter is read and the opt-in or -out notice is received. The changes will typically be reflected after one to two billing cycles. Customers who choose to leave the aggregation will be returned to the utility basic service rate.

Even if a consultant or supplier is charged with managing customer service, the municipality is still likely to receive some questions about the aggregation directed at municipal staff, so it is important to continue to have a point-of-contact on staff to answer aggregation-related questions from residents.

5.2 ESA Expiration and Renewal

The ESA that the municipality signs will eventually expire, at which point the municipality can decide to terminate the aggregation (see Section 5.6) or solicit for a new ESA, which is the most popular option. Prior to contract expiration, and at any time during the ESA, municipalities can also discuss options with their supplier to extend their existing contract. Due to changing market conditions, the pricing that a municipality receives in a new ESA solicitation may be different from the prior ESA.

Soliciting a new ESA is an opportunity for the municipality to evaluate the performance of the aggregation to-date considering the municipality's goals.

5.3 Ongoing Education and Outreach

The municipality can and should continue outreach and education once the aggregation program is operating. Providing periodic education and outreach events with general information about electricity supply options can be beneficial on an ongoing basis (see Section 4.3.2). When the ESA changes, municipal leaders should plan to conduct an outreach campaign to inform customers about the change in price and any other changes.

5.4 Ongoing Reporting and Tracking

DPU requires municipal aggregations to file public annual reports with the DPU that include information about rates and products, number of customers, load served, and other information. More information about reporting requirements, as well as historical annual reports from municipal aggregations, are available from [the DPU](#).

Municipal aggregations that purchase voluntary Massachusetts RECs as part of their standard or optional products should also track REC purchases and retirements each year. Municipal leaders can ask the aggregation consultant or supplier to show the GIS certificates for the retired RECs, which are evidence of the RECs being retired on behalf of the aggregation customers in the regional tracking system (called NEPOOL GIS). The municipality can provide this information to residents so they can be aware of the impact their REC purchases are having on renewable energy in the region.

In addition to required reporting to the DPU, municipal leaders should also continue to provide regular updates to residents and elected leaders about the aggregation, for instance through regular public postings on a municipal webpage and/or with webinars and public meetings. Transparency about the aggregation, including the number of participating residents and participation in any “opt-up” products, is important for residents to see if the municipality is achieving the goals set for the aggregation. A municipal aggregation consultant (if using) can help provide data and information to use in these updates.

Best Practices for Tracking and Reporting on an Active Aggregation:

- Track voluntary REC retirements and update residents about progress on renewable energy goals (if applicable).
- Provide regular updates to key municipal stakeholders and elected leaders about the status of the aggregation and progress towards aggregation goals.

5.5 Amending or Terminating an Aggregation Plan

As the municipality’s goals change over time, municipal leaders may want to make modifications to the municipal aggregation or may wish to terminate the aggregation. Refer to the DPU Guidelines regarding aggregation to determine the process that may be required to amend or terminate an aggregation plan. If the municipality is amending the plan to make changes to the clean energy programming for the aggregation, they are encouraged to consult with DOER regarding the amendments prior to finalizing. Reasons that municipalities have terminated aggregations include a change in price of basic service that makes the aggregation rate unfavorable, or changes in market conditions that would produce unfavorable supply rates in an ESA solicitation.

Appendices

A. Renewable Energy Policies and RECs

State Policy Requirements for Renewable Energy

Massachusetts, like many other states, has a Renewable Energy Portfolio Standard (RPS) policy that requires retail electricity suppliers to procure an increasing amount of power from renewable resources in each year.²⁶ The Massachusetts RPS is split into different “classes” with different obligation levels for specific categories of eligible renewable energy sources (Table C1). In addition to the RPS, Massachusetts also has a Clean Energy Standard, an Alternative Portfolio Standard, a Clean Peak Energy Standard, and other policies that set obligations for electricity providers.

Year	New resources categories				Existing resource categories		
	CES*	RPS-I	APS	CPS	RPS-II RE	RPS-II W2E	CES-E
2021	22%	18%	5.3%	3.0%	3.5634%	3.70%	20.0%
2022	24%	20%	5.5%	4.5%	3.6000%	3.70%	20.0%
2023	26%	22%	5.8%	6.0%	3.4721%	3.70%	26.0%
2024	28%	24%	6.0%	4.0%	3.6000%	3.70%	27.0%
2025	30%	27%	6.3%	5.5%	3.4137%	3.70%	26.0%
2026	36%	30%	6.5%	7.0%	TBD	3.5%	TBD
2027	42%	33%	6.8%	9.0%	TBD	3.5%	TBD
2028	48%	36%	7.0%	13.0%	TBD	3.5%	TBD
2029	54%	39%	7.3%	19.0%	TBD	3.5%	TBD
2030	60%	40%	7.5%	25.0%	TBD	3.5%	TBD

**RPS Class I contributes to meeting the CES standard*

Acronyms	
RPS-I	Renewable Energy Portfolio Standard for Qualified Class I Resources
CES	Clean Energy Standard
APS	Alternative Portfolio Standard
CPS	Clean Peak Energy Standard
RPS-II RE	Renewable Energy Portfolio Standard for Qualified Class II Renewable Energy Resources
RPS-II W2E	Renewable Energy Portfolio Standard for Qualified Class II Waste Energy Generation Units
CES-E	Clean Energy Standard for Qualified Existing Resources

Table C1. Portfolio Standard Obligations in Massachusetts

²⁶ <https://www.mass.gov/service-details/program-summaries>

More information about the RPS, APS, and CPS is available at [DOER's webpage](#). The Massachusetts Department of Environmental Protection (DEP) administers the CES and CES-E programs; more information is available from the [DEP webpage](#).

All retail electricity suppliers in Massachusetts, including those serving municipal aggregations, must comply with the RPS and other portfolio standard policies. That means that whether Massachusetts residents are getting their electricity from their utility's basic service, from a municipal aggregation, or from an individual competitive supply contract, their electricity supplier contains these required amounts of renewable energy. Residents served by a Municipal Light Plant (MLP), however, are not subject to the same regulations.

In order for retail electricity suppliers in Massachusetts to meet their annual compliance obligations established by the RPS, they must purchase a number of RECs equal to the percentage for that particular compliance year. Resources are only eligible for compliance with the Massachusetts RPS if they are geographically located in New England, or in an adjacent region (such as New York or Québec), and export their electricity into ISO New England (the wholesale electricity market that serves the six New England states). DOER qualifies renewable energy facilities that produce Massachusetts-eligible RECs.

Massachusetts Class I RECs

A Massachusetts "Class I" REC is a specific type of REC that meets the standards in the Massachusetts Class I RPS policy. They can only be produced by a qualified renewable energy facility that is either located in Massachusetts or in an adjacent area and only from new renewable energy facilities that began commercial operation after 1997 and generate electricity using one of the following technologies:

- Solar photovoltaic
- Solar thermal electric
- Wind energy
- Small hydropower (<= 30 MW)
- Landfill methane and anaerobic digester gas
- Marine or hydrokinetic energy
- Geothermal energy
- Eligible biomass fuel

REC Prices

RECs are a market product and the price of RECs varies over time. While REC values are generally determined by market supply and demand in a given year, state policies also play a role in determining REC prices. In Massachusetts, DOER plays a role in establishing a parameter on market prices for Massachusetts-qualified RECs by setting an Alternative Compliance Payment (ACP) Rate. Suppliers may pay the ACP in lieu of purchasing a qualified REC. The ACP Rate therefore incentivizes retail electricity suppliers to purchase RECs from qualified facilities at an amount lower than the ACP Rate in order to meet their compliance obligations. Revenue collected from ACPs is used by DOER to support new renewable energy, energy efficiency, and other clean energy projects throughout the Commonwealth.

Massachusetts Class I REC prices fluctuate over time and since 2022 have remained slightly below \$40 per REC.²⁷ The price is effectively capped by the ACP rate, because it is economically rational for suppliers to pay ACP anytime the REC price exceeds the ACP rate. The ACP rate is set at \$40 per MWh in 2023 and beyond. Because of the specific eligibility requirements and the strict tracking and accounting system, the price of Massachusetts-qualified RECs is typically higher than RECs from outside the region.

²⁷ Sustainable Energy Advantage market analysis, available at: <https://www.seadvantage.com/blog-post/dont-be-rec-less/>

B. Illustrative Questions to Ask Prospective Consultants

The following is a list of illustrative questions that municipal leaders may consider asking prospective consultants.

Electric Supply Rates

1. What will likely determine the electric supply rates we will receive as a municipal aggregation?
2. What characteristics of our municipality will be important in determining the electric supply rates we receive?
3. How do you help municipal aggregations to secure competitive electric supply rates for municipal aggregations?
4. How can we ensure affordable rates for low-income and environmental justice residents in an aggregation and reduce the energy burden for residents?
5. How do you think future technological changes like the deployment of Advanced Metering Infrastructure (AMI) could impact rate setting for municipal aggregations?

Supply Product Options

6. What do you see as the biggest risks in energy supply procurement, and how do you propose to help us mitigate them?
7. How can we best pursue clean energy and climate goals through aggregation?
8. What types of RECs do you recommend to municipal aggregations interested in increasing the share of renewable energy, and why?
9. How can we ensure the additionality of the RECs we are purchasing?
10. How can we ensure cost-effective rates for renewable energy? How do you work to secure competitive rates for RECs?

Outreach and Communications

11. Please describe your community engagement plan for each step of the aggregation process.
12. How do you tailor your outreach and communications based on the specifics of the local community you're working with?
13. How would you plan to solicit and incorporate feedback from our residents and businesses into plans for procurement, rate setting, and customer support?
14. How do you work to promote participation in "opt-up" green products for communities you work with?
15. What common challenges do you encounter with communications and outreach on aggregations, and how do you address them?
16. How do you manage customer support once an aggregation is operational?

Administrative

17. How much effort will aggregation require for town administrators? How much staff should we plan to allocate for aggregation during the development, launch, and operations periods? How do you plan to support and work with municipal staff?
18. What has been the timeline from initiation to launch for recent municipal aggregations that you've worked with?
19. What do you do to ensure municipal aggregation plans comply with all DPU requirements and what steps do you take to help improve the DPU's review timeline of a plan?
20. How do you plan to monitor and report on your performance to us?

Payment & Contracting

21. How do you structure payment for municipal aggregation services?

22. If using an administrative fee on aggregation sales to fund consulting services, could you explain your fee? Does it change over time?
23. How long typically does a contract for consultant services last? What services and contract length would you recommend for a municipality like mine?
24. What elements of ongoing operations and customer service will the municipality be responsible for after launch?

Referrals

25. Can you put us in touch with other municipal aggregations that you've worked with to discuss their experience working with you?

C. Calculating Consultant Fees

An average consultant fee is \$0.001 per kilowatt-hour (kWh) on all electricity billed to aggregation customers. Municipal leaders can make “back-of-the-envelope” calculations to understand how this fee would add up for aggregation customers over time:

- Step 1.* Determine the number of households in the municipality, or use the number of electric customers (if known). If the number of households is unknown, divide the population by 2.5, which is an average household size.
- Step 2.* Determine average electricity consumption. Average electricity consumption for residential households in Massachusetts is about 600 kWh per month. If the actual consumption in the municipality is known, use that figure.
- Step 3.* Calculate an estimate of the total consultant fee that would be paid by residential customers over the course of a year, for example:

$$600 \frac{kWh}{mo} * \frac{\$0.001}{kWh} * 5,000 \text{ households} * 12 \text{ months} = \$36,000 \text{ per year}$$

D. Additional Resources

- For general questions on this guide or about municipal aggregation, please contact your DOER **Green Communities Regional Coordinator**. Contact information available here: <https://www.mass.gov/service-details/contact-gc-coordinator>
- The **Massachusetts Department of Public Utilities (DPU)** has information about the municipal aggregation process and current aggregations in Massachusetts available on their webpage: <https://www.mass.gov/info-details/municipal-aggregation>
 - To view recent DPU dockets for review of municipal aggregation plans, visit the DPU File Room and select “Municipal Aggregation Plan” under “Case Type”: <https://eeaonline.eea.state.ma.us/DPU/Fileroom/dockets/bycasetype>
- **DOER** provides data on the number of customers on Basic Service, Competitive Supply, and Municipal Aggregation in the monthly Customer Choice dataset, available at: <https://www.mass.gov/service-details/electric-customer-choice-data>
- **Regional Planning Agencies (RPAs)** serving Massachusetts may be able to provide additional resources regarding municipal aggregation. List of RPAs available here: <https://www.apa-ma.org/resources/massachusetts-regional-planning-agencies/>
- The **National Renewable Energy Laboratory (NREL)** issued a report in 2019 on Community Choice Aggregation trends in the United States, available at: <https://www.nrel.gov/docs/fy19osti/72195.pdf>