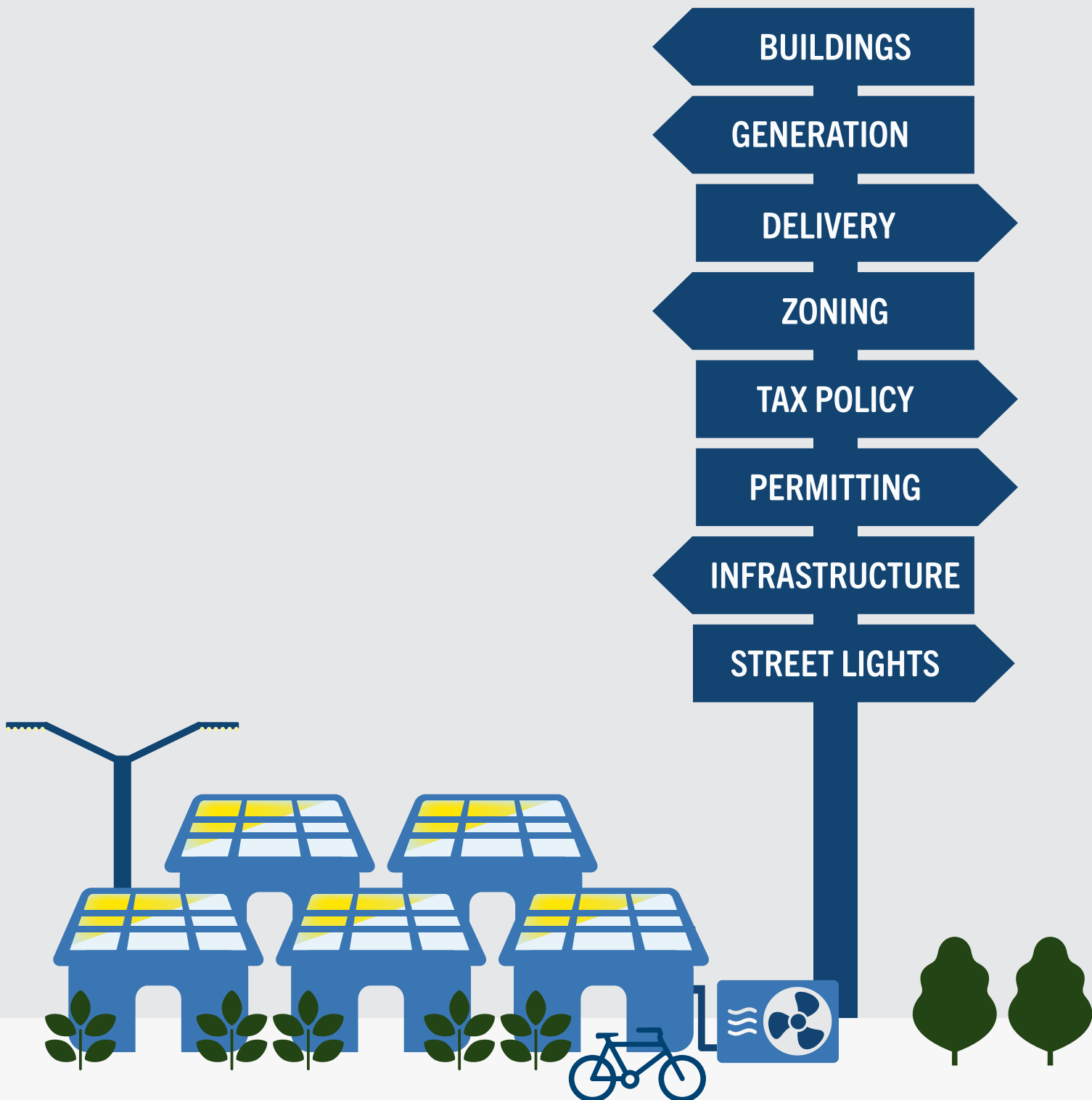


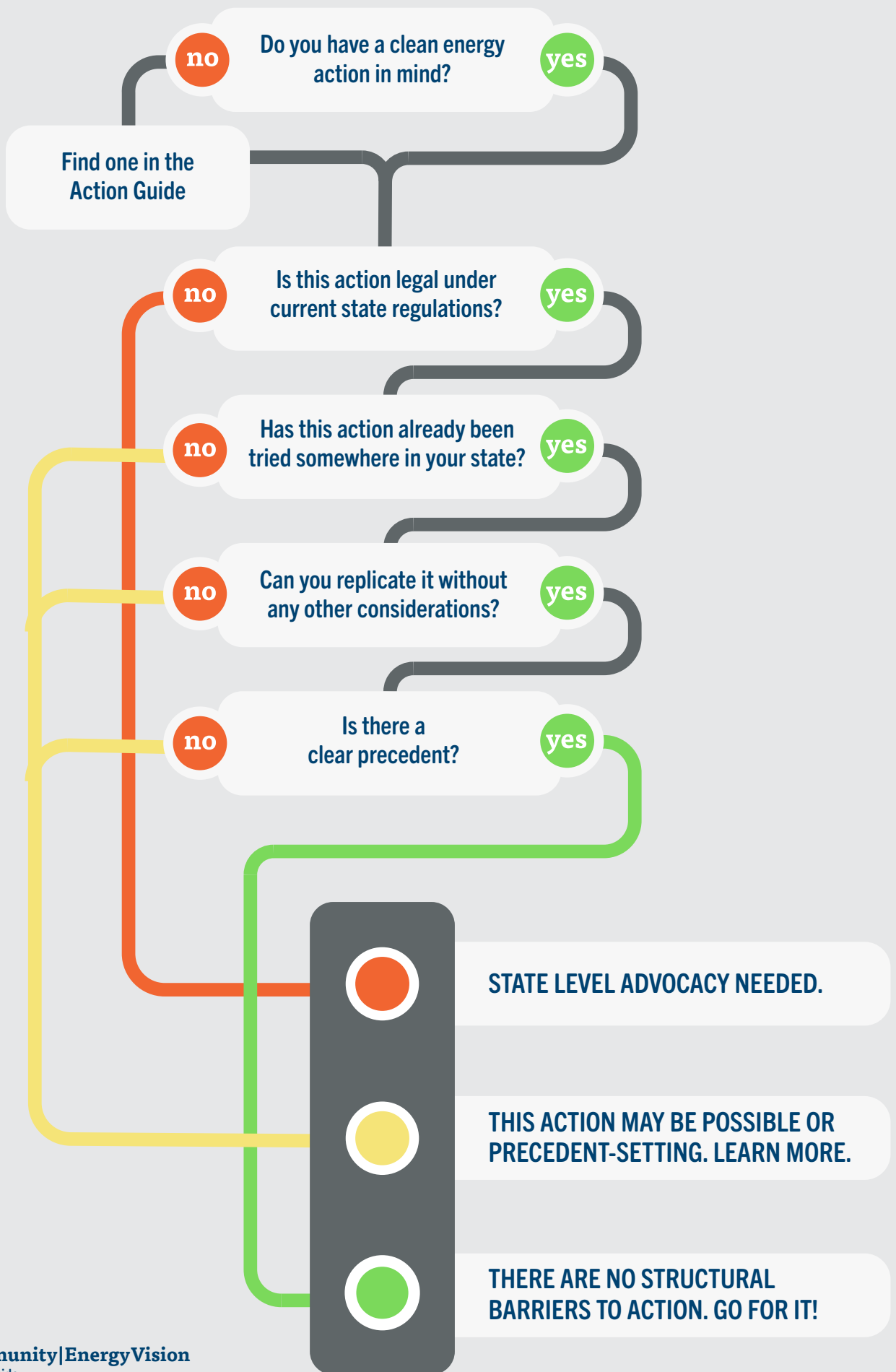
# Community|Energy Vision

## Action Guide for Massachusetts



A guide to taking action  
in your community.

# How this guide helps you take action:



# Community|EnergyVision Action Guide

## A Guide to Enacting Clean Energy at the Local Level

### A Guide for Taking Action

Our energy system is changing in historic ways. Advances in energy technology and increasingly competitive costs are offering unprecedented opportunities for communities to adopt clean, affordable, and local energy. New and improved ways of generating clean energy, reducing overall energy use, and managing how energy is used have opened the door to locally based projects that provide a broad range of community and energy system benefits.

These trends continue an evolution that dates back to start of electrification when municipal electric districts were formed and dominated the creation of our electricity system. Over time, many “munies” were purchased, merged into electric utilities, and given a state legal monopoly on power sales and distribution of electricity. State, and in some cases federal, laws still control a coordinated energy system and regional electricity grids. Energy policies and practices are established and intersect at various levels—from federal tax incentives for renewable energy, to state-wide energy efficiency programs, to local land-use decisions. As modern energy technologies, sited at the local level, become increasingly preferred tools to generate, distribute, and use power in a cleaner, more consumer friendly way, Community Energy is becoming the place where our energy future should increasingly be focused.

Acadia Center’s Community|EnergyVision Action Guide is intended to help those interested in pursuing clean energy at the local level explore, talk about, and, ultimately, act upon a home-grown desire for clean energy leadership. This Guide provides an overview of the types of clean energy projects or policies that residents, neighborhoods, and municipalities can pursue. Because the laws, ordinances, and regulations that pertain to these projects vary widely by state, the Action Guide provides a checklist of what is possible across the seven Northeast states covered and detailed, state-specific considerations.

Our goal is to illuminate the steps communities can take now, show how outdated rules act as barriers, and inspire local advocates to seek policy changes that give communities the choice to capture the benefits of a clean energy future.

### Community Action Matters

Our communities are on the front lines of creating a sustainable, low-carbon economic and environmental future. Rooted in their immediate surroundings and championed by respected neighbors, local initiatives have great capacity to change behavior, establish new norms, and advance Community Energy. The fixed scope of local projects often translates into lower hurdles to implementation and a more straightforward evaluation process. Community-based action that successfully demonstrates innovations in energy efficiency, generation, and management can be scaled up to the state level and provide a crucial backstop to federal rollbacks.

### Advancing Local Energy: Four Categories of Community Action

Local leaders and advocates—both inside and outside of official government roles—can drive Community Energy projects in many ways. The Action Guide explores four categories of community action to expand energy options, reduce consumption, and track changes over time. Measures to address public transportation systems, water treatment, and solid waste are crucial to meeting environmental goals, but are currently beyond the scope of this Action Guide.



#### BUILDINGS

Whether a small town or a large metropolitan area, our homes and businesses represent a large portion of the total energy consumption in every municipality in the Northeast. Buildings are also reservoirs of opportunity for clean energy improvements. Local governments and citizens are in a position to shape how buildings—both municipally and privately owned—are designed, built, renovated, and maintained for maximum clean energy performance.

- **Building Codes:** Generally, energy codes are part of state-level building codes that determine how buildings must be constructed. Although building code policy occurs primarily at the state level, municipalities have critical roles in

building code design and enforcement. Cities and towns can advance Community Energy by updating and enforcing codes to ensure that all buildings meet a minimum level of energy efficiency and that solar photovoltaic (PV) systems and electric vehicle charging systems can be more easily installed.

- **Building Siting and Permitting:** Local ordinances can support Community Energy by encouraging solar readiness and electric vehicle (EV) charging access in new construction and by rewarding stretch code compliance with expedited permitting for new buildings.

- **Benchmarking:** Documenting and tracking energy use patterns is a helpful tool for improving the energy performance of both municipally and privately-owned buildings. The disclosure and benchmarking of energy performance ratings can encourage efficiency upgrades, bring energy costs down and measure changes over time. While states vary in whether they allow their cities and towns to require benchmarking energy performance, municipalities can establish voluntary programs.

- **Municipal facilities:** As an act of leading by example, cities and towns can establish minimum energy performance and maintenance standards or targets for all municipally-owned facilities, from water and wastewater treatment plants to town offices, schools, and libraries.

## CLEAN ENERGY: LOCAL GENERATION, LOCAL DELIVERY AND PURCHASING

There are increasingly diverse ways to generate energy and deliver it to the customer. With on-site renewable energy, particularly solar PV, municipalities and their citizens have ways to make sure that the energy they consume comes from cleaner sources. Similarly, advances in vehicle technology and reductions in costs have opened up new opportunities for cities and towns to buy EVs and to invest in infrastructure that makes EVs easier for citizens to use.

- **Clean Energy Supply:** Policies dictating how solar customers are compensated for the power they generate are typically set at the state level, but communities can accelerate the adoption of clean energy. When municipalities source

and/or generate renewable energy for their own buildings, create district heating systems or aggregate the purchase of clean energy, they lead by example and encourage residents to do the same.

- **Delivery Infrastructure:** Infrastructure innovations allow cities and towns to take control of energy delivery to consumers—from microgrids that enable local power generation, storage, and consumption to clean, efficient district heat systems and efficient LED street lights.

- **Vehicles & Equipment:** Municipal purchasing policies can advance the adoption of efficient appliances, equipment, and vehicles, reducing energy use and setting a powerful example. Local action can also facilitate electric vehicle adoption and charging.

## CLEAN ENERGY ZONING AND SITING

Local governments have a significant ability to shape land use decisions and policy through zoning and permitting. This provides plenty of opportunities for municipalities to encourage and stimulate the development of clean energy projects and assets that can benefit their constituents.

- **Renewable Energy Siting:** In most states, municipalities can support small-scale renewable energy projects by adopting siting ordinances for energy facilities. These ordinances can help reduce conflict and facilitate decision-making when it comes to siting community solar projects and other types of clean energy installations in their community. Working with utilities, community members, and other stakeholders, cities and towns can bring well-designed renewable projects to life.

- **Zoning and Clean Energy Districts:** Adjusting municipal zoning codes can make municipalities more friendly to renewable energy generation by, for example, allowing systems to be erected above the allowable building height limit. Many states prevent municipalities from establishing zoning or siting ordinances that restrict the development of renewable resources. Clean Energy Districts are geographic areas set by state or municipal governments that are eligible to participate in certain clean energy financing

programs. These Districts can be given authority to administer programs and enter into contracts. Regional Planning Commissions can enhance the integration of energy planning across the state.

- **Permitting Process:** Municipalities can establish a streamlined and/or reduced-fee permitting process that can accelerate the development of renewable energy projects in their community.

## FINANCIAL INCENTIVES

Local governments have long used financial incentives, often through the property tax function, to attract beneficial development. Clean energy presents many opportunities in this vein—from providing exemptions for the development of renewable energy facilities to helping citizens fund deep energy retrofits with loans secured by the property and repaid through property tax bills (known as property assessed clean energy or “PACE” financing). Cities and towns can also be an important conduit for state and federal funding for clean energy.

- **Tax Policy:** Municipalities may encourage efficiency and renewable energy upgrades and ensure that increased tax liability is not a deterrent to these improvements by exempting any increase in value from local property taxes. Local policies may also encourage the siting of renewable generation facilities by allowing for property tax exemptions or explore equitably created tax increment financing (TIF) districts.
- **Grant Opportunities:** Cities and towns may be eligible for state and/or utility grants for qualified appliances, equipment, weatherization-related goods and services, and qualified distributed energy resources. They may also have access to targeted funding for combined heat and power systems and/or microgrids.
- **Financing:** Communities have a role in facilitating different financing mechanisms to support residential, commercial, and municipal projects. In general, once a state has authorized Residential or Commercial PACE, cities and towns can opt-in and publicize the availability of these property-assessed loans. Low-interest

residential and commercial loans and collective procurement (e.g., multiple municipalities teaming up for bulk purchases) programs may be available for purchases of qualified appliances, equipment, and weatherization-related goods and services; renewable energy technologies; and EVs and related infrastructure. Municipalities themselves may opt to finance efficiency and renewable energy projects, combined heat and power systems, microgrids, and/or EV charging infrastructure through low-interest loans or bonds.

## The Community Energy Landscape

Community action happens in the context of state policy, and what is possible in one Northeastern state may be prohibited in another. As a companion to this overview, Acadia Center has developed detailed state policy information to help local leaders across the Northeast understand their options and obstacles. Each state-specific guide can be read as a kind of checklist for municipal policy makers, community leaders, utilities & businesses, and grassroots coalitions committed to advancing the clean energy future. Taken together, this is a window into policies that could enhance community efforts by accelerating state-local partnerships or removing impediments to local action through reform of outdated laws and rules.

**Disclaimer:** *In providing the Community|EnergyVision Action Guide, Acadia Center has researched and compiled a set of leading clean energy policies and initiatives that can be pursued at the municipal level; however, the contents of the Guide do not constitute a comprehensive or exhaustive set of every measure available to cities and towns in the Northeast. While the Action Guide is intended to be a useful tool, it does not constitute legal advice.*

# A Comparison of Community Actions by State

The laws, ordinances, and regulations that pertain to community clean energy policies vary across the region. This comparison of the seven Northeast states by policy action should help you identify which community actions are permitted, limited, or prohibited in which states, and inspire you to work toward expanding policy opportunities in your state. Definitions and considerations for each action are included in the state-specific section of the Action Guide.

## ACTION KEY



**THERE ARE NO STRUCTURAL BARRIERS TO ACTION. GO FOR IT!**

This action is legislatively authorized or enabled and/or there is clear precedent for this action in your state. However, this does not mean that a particular policy has been adopted in your community.



**THIS ACTION MAY BE POSSIBLE OR PRECEDENT-SETTING. LEARN MORE.**

There may be limitations or considerations and/or no clear precedent for this action in your state. Changes may be necessary at the state level. See your state's section of this guide for more information.



**THIS ACTION IS NOT POSSIBLE. STATE-LEVEL ADVOCACY NEEDED.**

This action is legislatively prohibited and/or it is an option that does not exist in your state. Changes at the state level may enable this action.



## BUILDINGS

		CT	ME	MA	NH	NY	RI	VT
<b>Building Codes</b>	Enforce State Building Energy Code	●	●	●	●	●	●	●
	Adopt Municipal "Lead by Example" Energy Initiatives	●	●	●	●	●	●	●
	Adopt a Stretch Code	●	●	●	●	●	●	●
	Require New Construction be "EV-Ready"	●	●	●	●	●	●	●
	Require New Construction be "Solar-Ready"	●	●	●	●	●	●	●
	Adopt Mandatory Solar Requirement for New Homes	●	●	●	●	●	●	●
<b>Building Siting &amp; Permitting</b>	Preserve Solar Access in New Developments	●	●	●	●	●	●	●
	Establish a Sustainable Building Expedited Permit Program	●	●	●	●	●	●	●
<b>Benchmarking</b>	Adopt an EnergyPerformance Ordinance	●	●	●	●	●	●	●
	Mandate Building Energy Labeling	●	●	●	●	●	●	●
	Mandate the Disclosure of Building Energy Performance	●	●	●	●	●	●	●
	Establish a Minimum Energy Code for Rentals	●	●	●	●	●	●	●
	Require Energy Usage Disclosure for Rentals	●	●	●	●	●	●	●
<b>Municipal Facilities</b>	Establish Energy Efficiency Operations & Maintenance Standards for Municipal Facilities	●	●	●	●	●	●	●



# CLEAN ENERGY: LOCAL GENERATION, LOCAL DELIVERY AND PURCHASING

		CT	ME	MA	NH	NY	RI	VT
Clean Energy Supply	Enroll in a Green Tariff Program	●	●	●	●	●	●	●
	Participate in Community Choice Aggregation	●	●	●	●	●	●	●
Delivery Infrastructure	Establish a Municipal Utility (Municipalization)	●	●	●	●	●	●	●
	Develop a Municipal Microgrid	●	●	●	●	●	●	●
	Develop a Municipal District Energy System	●	●	●	●	●	●	●
	Purchase Utility-Owned Street Lights	●	●	●	●	●	●	●
	Upgrade Street Lights with Energy Efficient Technology	●	●	●	●	●	●	●
Vehicles & Equipment	Develop or Follow a Green Fleet Policy	●	●	●	●	●	●	●
	Establish a Public EV Charging Station Policy	●	●	●	●	●	●	●
	Develop or Follow an Energy Efficiency Purchasing Policy	●	●	●	●	●	●	●



# CLEAN ENERGY: ZONING AND SITING

		CT	ME	MA	NH	NY	RI	VT
Renewable Energy Siting	Adopt Energy Facility Siting Ordinances	●	●	●	●	●	●	●
Zoning & Clean Energy Districts	Adjust Zoning Requirements for Renewables	●	●	●	●	●	●	●
	Honor State-Required Zoning Exemptions for Renewable Energy Developments	●	●	●	●	●	●	●
	Establish a Clean Energy District or Regional Clean Energy Commission	●	●	●	●	●	●	●
	Require EV Access in New Developments	●	●	●	●	●	●	●
Permitting Process	Establish a Streamlined Process for Renewable Energy Permitting	●	●	●	●	●	●	●



# FINANCIAL INCENTIVES

		CT	ME	MA	NH	NY	RI	VT
Tax Policy	Establish Municipal Property Tax Exemptions for Clean Energy Systems	●	●	●	●	●	●	●
	Establish Tax Increment Financing (TIF) Districts for Clean Energy Improvements	●	●	●	●	●	●	●
Grant Opportunities	Participate in Energy Efficiency Grants for Municipalities	●	●	●	●	●	●	●
	Participate in DG, CHP and/or Microgrids Grants for Municipalities	●	●	●	●	●	●	●
Financing	Enable PACE Financing for Residential Projects	●	●	●	●	●	●	●
	Enable PACE Financing for Commercial Projects	●	●	●	●	●	●	●
	Participate in Financing for Municipal Projects	●	●	●	●	●	●	●

# Community Actions in Massachusetts

Clean energy policies can help communities and residents save energy, save money, and combat climate change by reducing carbon emissions. Find out below which policy actions are available to you based on obstacles or opportunities in Massachusetts state law. The information provided here should help you take advantage of actions that are already straightforward to accomplish and motivate you to work towards the changes needed in state-level policies. The Action Guide is a tool for seizing your clean energy future – use it to benefit your city or town.

A list of acronyms used and resources for additional information is provided at the end of this document.



## BUILDINGS

### BUILDING CODES

- Enforce State Building Energy Code**

**What this means:** Ensure that new buildings, or those undergoing significant renovations, meet a minimum level of energy efficiency as prescribed in the state building energy code.

**What you should know:** Local inspectors—with the option to use third-party inspectors—must enforce the state building energy code.
- Adopt Municipal “Lead by Example” Energy Initiatives**

**What this means:** Adopt a local requirement that municipal buildings be a set amount more efficient than the base state building energy code.

**What you should know:** Many Massachusetts municipalities are leading by example. For example, [Cambridge, Massachusetts](#), adopted a requirement in 2002 that all new municipal building projects and major renovations follow LEED design criteria. The state’s [Green Communities Program](#) can be a helpful tool.
- Adopt a Stretch Code**

**What this means:** Adopt more stringent energy conservation provisions than those required by the base state building energy code.

**What you should know:** Municipalities may upgrade their energy code with the [state-determined “stretch code”](#)– [Appendix 115AA](#). As of May 2017, [196 of 351](#) municipalities have adopted the code.
- Require New Construction be “EV-Ready”**

**What this means:** Modify building codes to ensure that EV charging equipment can be more easily and efficiently added to new construction. Changes might include an updated electric code with wiring requirements.

**What you should know:** The state-established base and stretch codes do not include this and cannot be amended or made more stringent by municipalities.
- Require New Construction be “Solar-Ready”**

**What this means:** Modify building codes to ensure that solar PV systems can be more easily added to new construction. Changes might include an updated electric code with wiring, chase, and circuit breaker requirements.

**What you should know:** The state-established base and stretch codes do not include this and cannot be amended or made more stringent by municipalities.
- Adopt Mandatory Solar Requirement for New Homes**

**What this means:** Adopt requirements that solar PV be installed on all new residential construction, depending on zone and lot type.

**What you should know:** This is not specifically prohibited, but may be difficult to establish and implement. Building code adjustments are not available, and systems would be limited according to energy facility siting regulations (see [Zoning % Siting for Clean Energy](#)).



## BUILDING SITING AND PERMITTING

### ● Preserve Solar Access in New Developments

**What this means:** Require that site plans for new construction preserve solar access through consideration of orientation and location of buildings, open spaces, and other features.

**What you should know:** Municipalities are directly given authorization to adopt zoning ordinances or by-laws that encourage the use of solar energy systems and protect solar access.<sup>1</sup>

### ● Establish a Sustainable Building Expedited Permit Program

**What this means:** Establish an expedited permitting process for buildings and other structures with, for example, strong energy efficiency or renewable-ready features.

**What you should know:** Municipalities generally have broad discretion to reward renewable-ready and energy efficient building design by establishing expedited permitting processes and/or establishing reduced fees for permit processing.

### ● Mandate the Disclosure of Building Energy Performance

**What this means:** Require that residential and/or non-residential building energy performance ratings be disclosed.

**What you should know:** Boston and Cambridge both require disclosure of energy usage of large commercial and residential buildings (35,000 sq. ft.). However, disclosure of home energy scores for HELIX is voluntary. It is unclear whether public disclosure of home energy scores can be required by municipalities.

### ● Establish a Minimum Energy Code for Rentals

**What this means:** Require that rental units meet a minimum level of energy performance.

**What you should know:** Municipalities can require registration and inspection of rental units for [safety issues](#) and may be able to extend these regulations to include a baseline energy performance requirement for rentals.

### ● Require Energy Usage Disclosure for Rentals

**What this means:** Require that historical energy usage for rental units be disclosed to prospective tenants as part of the lease agreement.

**What you should know:** Municipalities can require registration and inspection of rental units for [safety issues](#) and may be able to extend these regulations to cover energy usage, as disclosed by energy bill history.

## BENCHMARKING

### ● Adopt an Energy Performance Ordinance

**What this means:** Require certain types of buildings (e.g., multi-family residential, non-residential) to benchmark and report energy usage in comparison to similar facilities. Reporting requirements may include public disclosure and display of results.

**What you should know:** Both [Cambridge](#) and [Boston](#) have adopted building energy use and disclosure ordinances. Both ordinances require owners of large buildings to track and report annual energy use. This data is publicly disclosed.

### ● Mandate Building Energy Labeling

**What this means:** Establish a required rating system for residential and non-residential buildings based on building energy performance.

**What you should know:** For residential buildings, municipalities may have authority to institute a scoring or labeling system such as the DOE [Home Energy Score](#); however, there is no statewide mandate for home energy labeling. MA is also making efforts to improve voluntary home energy labeling through the [Home Energy Labeling Information eXchange](#) (HELIX).

## MUNICIPAL FACILITIES

### ● Establish Energy Efficiency Operations & Maintenance Standards for Municipal Facilities

**What this means:** Create and enforce minimum operations and maintenance standards for all municipally-owned facilities, including performance requirements and the development of related manuals.

**What you should know:** Energy standards for the operations and maintenance of municipal buildings enable cities and towns to control their energy use and expenses and to demonstrate the potential of this tool. [The Green Communities Program](#) provides resources and guidance for this type of action.



# CLEAN ENERGY: LOCAL GENERATION, LOCAL DELIVERY AND PURCHASING

## CLEAN ENERGY SUPPLY

### ● **Enroll in a Green Tariff Program**

**What this means:** Opt-in to a utility program that allows a municipality to buy up to 100% of its electricity from clean energy sources.

**What you should know:** [Massachusetts](#) allows customers to buy electricity from a variety of different suppliers, including those who provide renewable energy to the grid. A program run by [Mass Energy](#) allows residential and small commercial customers to switch to or match their energy consumption with renewable energy sources.

### ● **Participate in Community Choice Aggregation (CCA)**

**What this means:** Work with your community to pool residential, business, and municipal electricity load and to purchase and/or develop clean electricity on behalf of customers participating in the CCA program.

**What you should know:** Engaging in CCA allows MA communities to contract for rates and renewable energy content with competitive suppliers and to obtain funds to provide energy efficiency services to residents. The process requires approval by the municipal elected body, followed by review and approval by DOER and DPU.<sup>2</sup> MAPC's [Community Electricity Aggregation PLUS program](#) is a way to prioritize Class I RECs.

### ● **Develop a Municipal Microgrid**

**What this means:** Work with developers and stakeholders to create a microgrid to enable local energy generation, storage, and consumption; add capacity and stability to the larger grid; and, operate independently at times.

**What you should know:** Municipal development of microgrids may be feasible, but would likely face regulatory obstacles because MA has not yet developed comprehensive rules for microgrids. It is unclear whether a microgrid would be regulated by DPU as an electric generator, aggregator, or supplier. [Massachusetts Clean Energy Center](#) (MassCEC) is in the process of developing resources to assist the development of microgrids in MA.

### ● **Develop a Municipal District Energy System**

**What this means:** Work with developers and stakeholders to create a district energy system for efficient heating and cooling in your community.

**What you should know:** There is strong precedent for district energy systems in MA, and the Veolia steam plant and delivery infrastructure in Boston is the [largest district energy system](#) in the U.S. At least 19 other systems exist in MA, including in Burlington, Lancaster, Plymouth, and Worcester, but developing district energy is a challenging capital expenditure and it can be difficult to secure permission for public-private energy infrastructure.

## DELIVERY INFRASTRUCTURE

### ● **Establish a Municipal Utility (Municipalization)**

**What this means:** Establish or acquire the electric system, including infrastructure and operations, in order to lower rates, source more renewables, and ensure local control.

**What you should know:** While technically [possible](#) in Massachusetts, and 41 municipalities have done this in the past, it is quite challenging to establish a new municipal utility. No MA community has formed a municipal utility since 1926.

### ● **Purchase Utility-Owned Street Lights**

**What this means:** Buy your street light system from the utility to facilitate installation of LEDs and other cost- and energy-saving upgrades. Some utilities may be required to make street lights available for sale at a reasonable cost at a municipality's request.

**What you should know:** Utilities are required by the state to sell street lights to interested municipalities.<sup>3</sup> At least 43 municipalities have bought their lights and converted to LEDs over the last two decades. Many of these have accomplished this through resources provided by the [Metropolitan Area Planning Council](#).



## ● Upgrade Street Lights with Energy Efficient Technology

**What this means:** Utility street light tariffs may offer either traditional or progressive options for utility-owned or customer-owned street lighting equipment. Traditional street light tariffs offer a set rate for dusk-to-dawn service. Progressive tariffs can offer opportunities to cut energy use and expenses by converting street lights to LEDs, upgrading lights with dimming technology, and/or limiting hours of service.

**What you should know:** National Grid offers LED rates for both [utility-owned](#) and [customer-owned](#) equipment tariffs. Both rates also assume only dusk-to-dawn service. Municipalities will not receive cost savings for time-control devices or dimmable lights.

Eversource's utility-owned tariffs do not offer LED rates. Eversource's customer-owned equipment tariffs allow customers to install luminaires of their choice, including LEDs. None of their tariffs offer service other than dusk-to-dawn and therefore customers cannot realize savings from other efficiency upgrades such as dimming or time control technology.

**What you should know:** Several EV policy initiatives are available for MA communities. State law [authorizes](#) municipalities to establish preferential parking for zero-emission vehicles.<sup>4</sup> Methuen adopted a zoning ordinance [addendum](#) in 2011 that specifies uses and placement of charging stations.

## ● Develop or Follow an Energy Efficiency Purchasing Policy

**What this means:** Follow state selection guidelines and criteria for municipal purchases, or adopt local guidelines requiring, for example, the purchase of energy efficient appliances and equipment for municipal use.

**What you should know:** Massachusetts offers [guidance for municipalities](#) on energy assessments and cost savings through energy efficiency. Municipalities can also use as a model the State [Leading by Example Program](#).

# CLEAN ENERGY: ZONING AND SITING

## RENEWABLE ENERGY SITING

### ● Adopt Energy Facility Siting Ordinances

**What this means:** States typically regulate the siting of larger energy facilities and leave municipalities to regulate smaller projects. Municipalities can clarify community standards to facilitate the development of renewable energy facilities and reduce potential conflicts about the appropriateness of renewable energy facilities.

**What you should know:** Municipalities regulate siting and construction for all energy projects smaller than 100MW.<sup>5</sup> Cities and towns participating in the [Green Community Program must develop ordinances to encourage renewable energy generation, and may choose “as-of-right siting”](#) for renewable energy generation OR manufacturing, or a solar overlay. DOER has developed model ordinances that may be modified and adopted for local governments.

## VEHICLES & EQUIPMENT

### ● Develop or Follow a Green Fleet Policy

**What this means:** Follow state selection guidelines and criteria for municipal passenger and utility vehicle purchases so that vehicles meet minimum efficiency standard or emit less than a certain amount of CO<sub>2</sub> per mile.

**What you should know:** Municipalities participating in the [Green Communities Program](#) must purchase only fuel-efficient vehicles for municipal use. The State's [Electric Vehicle Incentive Program](#) (MassEVIP) regularly offers new grant funding for public and private fleets to purchase alternative fuel vehicles and infrastructure. Municipalities can also purchase [vehicles](#) and [equipment](#) through state contracts.

### ● Establish a Public EV Charging Station Policy

**What this means:** Create a public EV charging station policy in your community to guide development of EV infrastructure and enable EV access. Some states provide guidance for this as well.

## ZONING & CLEAN ENERGY DISTRICTS

### ● Adjust Zoning Requirements for Renewables

**What this means:** Make zoning codes more friendly to renewable energy projects. For example, create exemptions for renewable energy systems that allow them to be erected above the established building height limit.

**What you should know:** Municipalities have broad authority to develop and make adjustments to local zoning codes for renewable energy. Municipalities are specifically authorized to adopt solar-friendly ordinances including special permits to protect access to direct sunlight.<sup>6</sup> See [Model Zoning for the Regulation of Solar Energy Systems](#).

### ● Honor State-Required Zoning Exemptions for Renewable Energy Developments

**What this means:** Some states exempt renewable projects approved by a state-level body from local zoning and siting ordinances. Others mandate that local zoning and siting ordinances cannot restrict or have the effect of restricting the development of renewable energy resources.

**What you should know:** Massachusetts statute specifies that zoning ordinances may not prohibit or unreasonably regulate the installation of solar energy systems.<sup>7</sup>

### ● Establish a Clean Energy District or Regional Clean Energy Commission

**What this means:** Join or create a clean energy district or regional planning commission, either among or within municipalities, to enhance the administration of energy efficiency and clean energy programs and enhance integration of energy planning across the state.

**What you should know:** Massachusetts has not legislatively enabled the creation of these types of districts or commissions and there is no precedent for them in MA.

### ● Require EV Access in New Developments

**What this means:** Adopt ordinances that require, for example, a certain number of EV charging stations in parking lots, based on the size of the lot or adjacent buildings.

**What you should know:** Municipalities have broad authority to establish zoning ordinances and likely have authority under home rule to adopt such an ordinance. However, no precedent for this was found in MA.

## PERMITTING PROCESS

### ● Establish a Streamlined Process for Renewable Energy Permitting

**What this means:** Implement standards that limit the time it takes to get a permit for a renewable energy project and/or reduce or waive permitting fees.

**What you should know:** Municipalities in MA have broad authority over local permitting process and fee schedules. Additionally, cities and towns participating in the Green Communities Program must adopt an [expedited application and permitting process](#) for renewable energy projects.

## FINANCIAL INCENTIVES

### TAX POLICY

### ● Establish Municipal Property Tax Exemptions for Clean Energy Systems

**What this means:** Provide an exemption from local property taxes for qualified renewable energy systems and/or efficiency upgrades.

**What you should know:** State [law](#) requires that municipalities provide property tax exemptions for the incremental value of certain solar, wind, and hydro power systems.<sup>8</sup>

### ● Utilize Tax Increment Financing (TIF) Districts for Clean Energy Improvements

**What this means:** TIF is an economic development tool that leverages tax adjustments to subsidize projects within a defined district. TIF districts have been used in parts of the country to support clean energy projects, including infrastructure investments, efficiency upgrades, and transit-oriented development.

**What you should know:** Although MA's TIF statute<sup>9</sup> has not been applied to clean energy projects, this precedent exists elsewhere in the country. TIF agreements need to be created

with care to ensure that clean energy projects specifically benefit.

## GRANT OPPORTUNITIES

### ● **Participate in Energy Efficiency Grants for Municipalities**

**What this means:** States typically regulate the siting of larger energy facilities and leave municipalities to regulate smaller projects. Municipalities can clarify community standards to facilitate the development of renewable energy facilities and reduce potential conflicts about the appropriateness of renewable energy facilities.

**What you should know:** [Mass Save](#) offers a number of rebates and resources for energy efficiency improvements in municipal facilities. In addition, municipalities participating in the [Green Communities Program](#) are eligible to receive grant funding and other forms of support.

### ● **Participate in DG, CHP and/or Microgrids Grants for Municipalities**

**What this means:** Utilize state and/or utility grants for qualified distributed energy resources. There may be targeted funding available for Combined Heat and Power systems and/or microgrids.

**What you should know:** Massachusetts has previously awarded millions for resiliency projects including microgrids, CHP systems, and battery storage. MassCEC has offered grants to communities interested in exploring technical and commercial feasibility of microgrids. Mass Save offers rebates and resources for improvements such as CHP.

## FINANCING

### ● **Enable PACE Financing for Residential Projects**

**What this means:** Opt into Residential PACE programs that provide loans for qualifying energy efficiency and clean energy improvements. PACE loans are secured by a lien on the property and are generally repaid as a line item on the homeowner's property tax bill.

**What you should know:** R-PACE is not yet allowed in MA. State [law](#) does authorize cities and towns to establish an Energy Revolving Loan Fund by ordinance or by-law<sup>10</sup> to provide loans for energy

conservation and renewable energy projects, but few municipalities have done so.

### ● **Enable PACE Financing for Commercial Projects**

**What this means:** Opt into Commercial PACE programs that provide loans for qualifying energy efficiency and clean energy improvements and are secured by a lien on the property. PACE financing can be offered at lower interest rates and for longer terms than would be possible with an unsecured loan.

**What you should know:** State [law](#) has established a commercial PACE [structure](#) in Massachusetts, and specific programs are under development.<sup>11</sup>

### ● **Participate in Financing for Municipal Projects**

**What this means:** Utilize low interest loans, bonding programs and/or energy performance contracting available for energy efficiency and renewable energy projects, including Combined Heat and Power systems, microgrids and EV charging infrastructure.

**What you should know:** Municipalities have multiple options for financing energy-saving projects. Many, including the city of [Worcester](#), have used [Energy Management Services](#), sometimes called Energy Savings Performance Contracting.<sup>12</sup> [Power Purchase Agreements and Net Metering Credit Purchase Agreements](#) have also enabled many municipalities to install solar PV systems that are owned and operate by an outside party. These arrangements support renewable energy and provide long-term cost savings and stability, with little or no upfront cost to the municipality.

# Key Acronyms and Terms

## General Terms

**CCA** – Community Choice Aggregation – a program that allows municipalities to buy and/or generate electricity for residents and businesses within their areas

**CHP** – Combined Heat and Power – also called cogeneration – process that generates electricity and useful thermal energy in a single, integrated system

**DG** – Distributed Generation – technologies that generate energy at the point of consumption, rather than at a centrally-located power plant, and either grid-tied or stand-alone

**ESPC** – Energy Savings Performance Contracting – a financing mechanism wherein a project is paid for using the savings achieved by the project

**EV** – Electric Vehicles – include both all-electric and plug-in hybrid electric vehicles

**EVSE** – Electric Vehicle Supply Equipment – include both Level 2 EV charging stations, which take 4 hours to charge a vehicle, and DC Fast Chargers, which take 30 minutes to charge

**IECC** – International Energy Conservation Code – model building code created by the International Code Council and adopted by many states and municipal governments in the United States for the establishment of minimum design and construction requirements for energy efficiency

**LED** – Light Emitting Diode – a highly efficient lighting fixture

**LEED** – Leadership in Energy and Environmental Design – a building performance rating system run by the U.S. Green Building Council (USGBC). LEED projects earn one of four rating levels: Certified, Silver, Gold, or Platinum

**PACE** – Property Assessed Clean Energy – a mechanism that finances qualifying energy efficiency and clean energy improvements through a lien on the property

**Solar PV** – Solar Photovoltaic system – a power system that converts sunlight into electricity

**TIF** – Tax Increment Financing – a method of financing public improvements with the incremental taxes created by new construction, expansion, or renovation of property within a defined area of the community (a TIF district)

## Massachusetts-Specific Terms

**DEP** – Department of Environmental Protection

**DOER** – Department of Energy Resources

**DPU** – Department of Public Utilities

**EMS** – Energy Management Services – DOER's name for ESPC

**MassCEC** – Massachusetts Clean Energy Center

**MAPC** – Metropolitan Area Planning Council

# Additional Resources and Links

## Special Resource for Communities: Mass Power Forward

Mass Power Forward ([mapowerforward.com](http://mapowerforward.com)) is a coalition of local leaders, communities, and organizations—including Acadia Center—that advocates for clean energy in Massachusetts. Its comprehensive toolkit of resources can help communities achieve many of the actions listed above. Check out their website, toolkit, and fact sheets for concrete actions you can take related to Green Communities, energy efficiency for municipal buildings, climate change planning, renewable energy initiatives, electric vehicles, and many other areas.

## Boston's District Energy System:

[http://www.districtenergy-digital.org/districtenergy/2015Q2?sub\\_id=](http://www.districtenergy-digital.org/districtenergy/2015Q2?sub_id=)

**Cambridge, Massachusetts - Energy Efficiency in City Buildings:** <http://www.cambridgema.gov/CDD/climateandenergy/municipalsustainability/citybuildings>

## Also see other sustainability initiatives

**by Cambridge:** <http://www.cambridgema.gov/CDD/climateandenergy/municipalsustainability>

**Cambridge, Massachusetts Building Energy Usage Disclosure Ordinance:** <http://www.cambridgema.gov/CDD/zoninganddevelopment/sustainablebldgs/buildingenergydisclosureordinance.aspx>

**Clean Cities Coalition - Alternative Transportation:** <http://www.mass.gov/eea/energy-utilities-clean-tech/alternative-transportation/clean-cities-coalition.html>

## Energy Efficiency Programs:

<http://www.mass.gov/eea/energy-utilities-clean-tech/energy-efficiency/>

## Energy Efficiency in Municipalities:

<http://www.mass.gov/eea/energy-utilities-clean-tech/green-communities/energy-audit-program-eap.html>

## Also see: Save Energy and Money in

**your Municipality:** <http://www.mass.gov/eea/docs/doer/green-communities/eap/mass-save-municipal-sector-sheet.pdf>

## Energy Savings Performance Contracting:

<http://www.mass.gov/anf/property-mgmt-and-construction/facilities-mgmt-and-maintenance/energy-and-sustainability/energy-performance-contracting-program.html>

## Electric Vehicle Incentive Program:

<http://www.mass.gov/eea/agencies/massdep/air/grants/massevip-municipal.html>

## Eversource Streetlighting Tariffs:

<https://www.eversource.com/Content/ema-c/business/my-account/billing-payment/rates-tariffs/electric-tariffs-rules>

**Green Communities Designation and Grant Program:** <http://www.mass.gov/eea/energy-utilities-clean-tech/green-communities/>

**Green Communities - Stretch Code Adoption by Community:** <http://www.mass.gov/eea/docs/doer/green-communities/grant-program/stretch-code-towns-adoption-by-community-map-and-list.pdf>

**Green Communities Program – Criterion 1 “As-of-right” Renewable Energy Siting:** <http://www.mass.gov/eea/energy-utilities-clean-tech/green-communities/gc-grant-program/criterion-1.html>

**Green Communities Program – Criterion 2 Expedited Permitting:** <http://www.mass.gov/eea/docs/doer/green-communities/grant-program/criterion-2-guidance-2013.pdf>

**Green Communities Program – Criterion 4 Fuel Efficient Vehicles:** <http://www.mass.gov/eea/docs/doer/green-communities/grant-program/criterion-4-guidance.pdf>

**Home Energy Labeling Information eXchange (HELIX):** <http://www.neep.org/sites/default/files/resources/Home%20Energy%20Labeling%20Information%20Exchange%20One-Page.pdf>

**Leading by Example Initiatives in Massachusetts:** <http://www.mass.gov/eea/grants-and-tech-assistance/guidance-technical-assistance/leading-by-example/>

**Massachusetts Association of Regional Planning Agencies – Best Practices Model for Streamlined Local Permitting:** <http://www.mass.gov/hed/docs/permitting/permitting-bestpracticesguide.pdf>



# Additional Resources and Links - cont.

## Mass Energy Green Power Programs FAQ:

<https://www.massenergy.org/renewable-energy/faq#11>

## Mass Power Forward:

<http://mapowerforward.com/100re>

## Massachusetts Stretch Code:

<http://www.mass.gov/eea/energy-utilities-clean-tech/energy-efficiency/policies-regs-for-ee/building-energy-codes.html>

## Massachusetts Clean Energy Center (MassCEC) - Microgrids:

<http://www.masscec.com/microgrids>

## Mass Save:

<http://www.masssave.com/>

## Metropolitan Area Planning Council (MAPC):

**Clean Energy Department:** <https://www.mapc.org/our-work/expertise/clean-energy/>

## LED Street Lighting resources:

<https://www.mapc.org/our-work/expertise/clean-energy/led-streetlight-retrofits/>

## Model Zoning for the Regulation of Solar Energy

**Systems:** <http://www.mass.gov/eea/docs/doer/green-communities/grant-program/model-solar-zoning.pdf>

## National Grid Streetlighting Tariffs (Massachusetts Electric Company):

Utility-Owned Equipment Tariff: [https://www9.nationalgridus.com/non\\_html/1311%20-%20me-cooct2016%20S-1.pdf](https://www9.nationalgridus.com/non_html/1311%20-%20me-cooct2016%20S-1.pdf)

Customer-Owned Equipment tariff: [https://www9.nationalgridus.com/non\\_html/1314%20-%20me-cooct2016%20S-5.pdf](https://www9.nationalgridus.com/non_html/1314%20-%20me-cooct2016%20S-5.pdf)

## References

1. M.G.L. ch. 40A sec. 9B
2. M.G.L. ch. 164 sec. 134
3. M.G.L. ch. 164 sec. 34A
4. 2016 Mass. Acts c. 448.
5. M.G.L. ch. 164 sec. 69G
6. M.G.L. ch. 40A sec. 9B
7. M.G.L. ch. 40A sec. 3
8. M.G.L. ch. 59 sec 5 (Forty-fifth, Forty-fifth A)
9. M.G.L. ch. 40 sec. 59
10. M.G.L. ch. 44 sec. 53E 3/4
11. M.G.L. ch. 23M
12. M.G.L. ch. 25A Sec.11I

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Boston, MA 617-742-0054 • Hartford, CT 860-246-7121 • New York, NY 212-256-1535

Providence, RI 401-276-0600 • Rockport, ME 207-236-6470

