

COMMONWEALTH OF MASSACHUSETTS  
DEPARTMENT OF ENERGY RESOURCES

*Elizabeth Mahony, Commissioner*

# **Green Communities 2.0 (Climate Leader Communities)**

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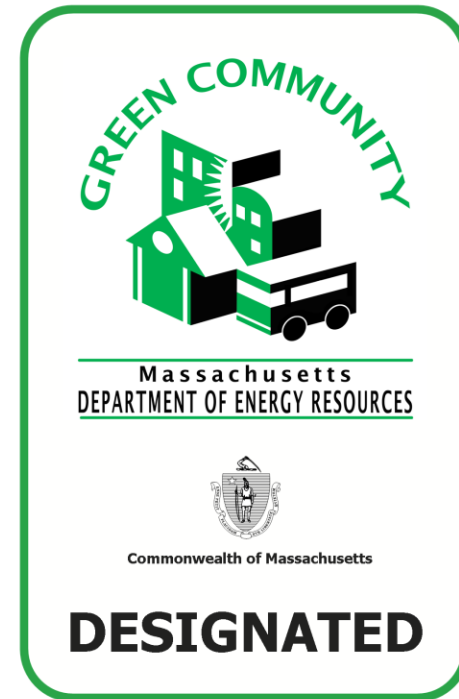
**Fall 2023**

# Green Communities Designation and Grant Program

**Established by the Green Communities Act of 2008**

## Designation Criteria

1. Adopt as-of-right siting for renewable/alternative energy generation, research and development, or manufacturing
2. Adopt expedited permitting process
3. Create an energy use baseline and a plan to reduce municipal energy use by 20% in 5 years
4. Purchase only fuel-efficient vehicles
5. Reduce life-cycle costs of new construction by adopting the stretch energy code

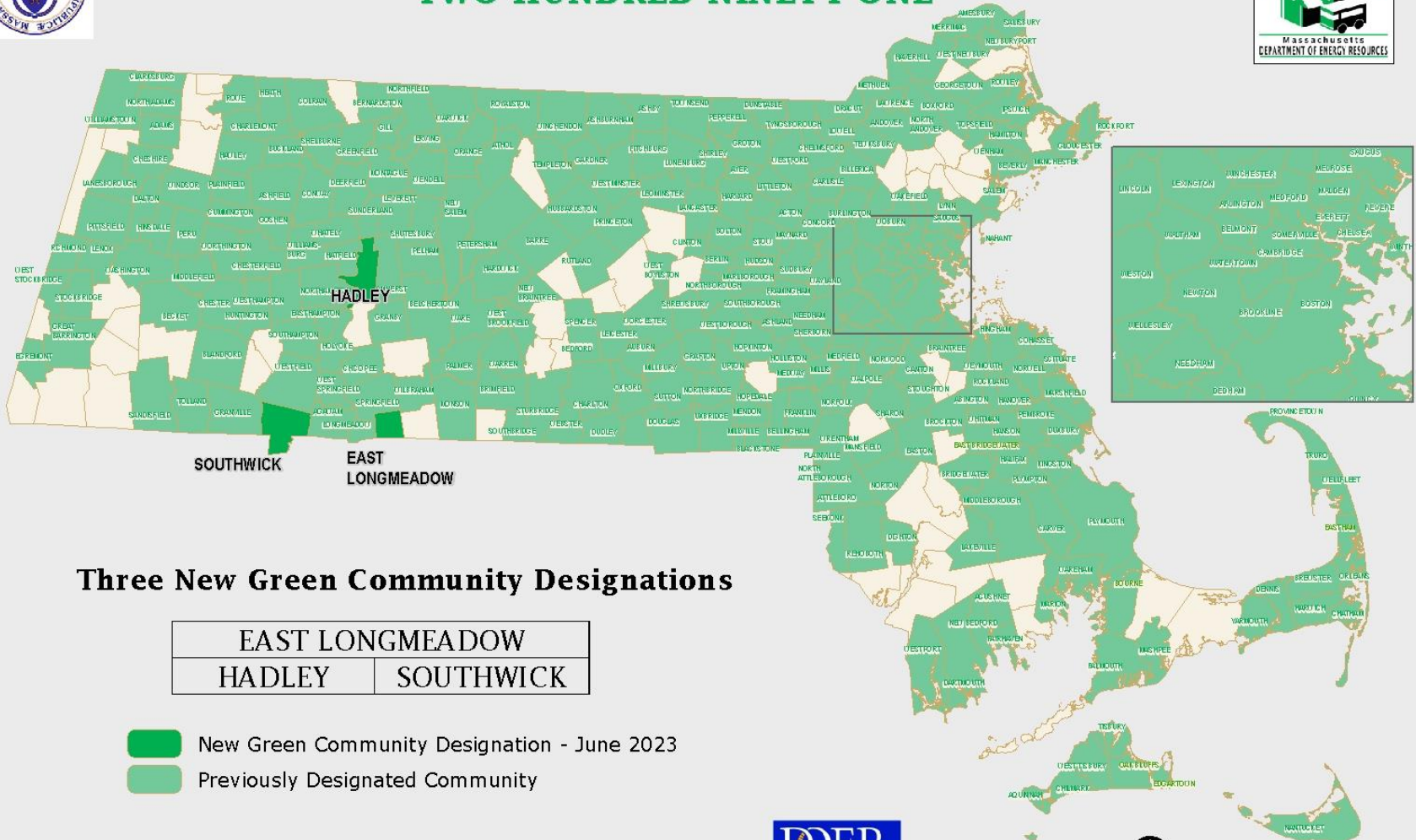


## Eligible for Grants on Municipal Property

- Energy efficiency projects
- Renewable energy projects



# GREEN COMMUNITY DESIGNATIONS REACH TWO HUNDRED NINETY-ONE



## Three New Green Community Designations

EAST LONGMEADOW	
HADLEY	SOUTHWICK

- New Green Community Designation - June 2023
- Previously Designated Community

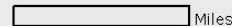


J. Pfister, 5-25-23



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# Climate Leader Program

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Align resources for municipalities with EEA climate and energy goals



Provide framework for municipalities seeking higher climate ambition



Enhance engagement and forward progress with municipalities

# Program Evolution: From Green Community to Climate Leader

## Green Communities Criteria

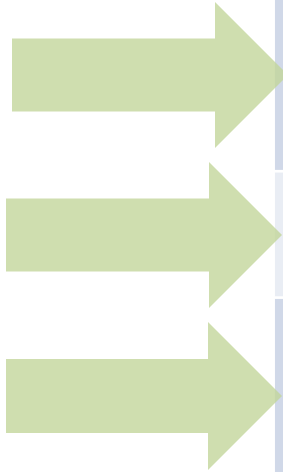
Adopt as-of-right siting for RE/AE generation, R&D, or manufacturing

Adopt expedited permitting process

Create an Energy Reduction Plan to reduce energy use by 20% in 5 years

Purchase only fuel-efficient vehicles

Minimize life cycle cost in new construction – a.k.a adopt the Stretch Code



## Climate Leaders Criteria

Establish/maintain local committee to advise, coordinate, and/or lead clean energy and climate activities

Municipal decarbonization commitment

Create Municipal Decarbonization Roadmap with 2030 & 2050 goals

ZEV-First vehicle policy

Specialized Stretch Code Adoption

# Climate Leaders Conceptual Design

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## Requirements for Certification

- Must be an existing Green Community in “good standing”
- Establish/maintain a local committee to advise, coordinate, and/or lead clean energy and climate activities
- Commit to municipal decarbonization by 2050 and formulate a roadmap for implementation
- ZEV-First vehicle policy
- Specialized Stretch Code Adoption

## Requirements for Recertification (every 3 years)

- Demonstrate meeting the Certification requirements
- Update Decarbonization Roadmap
- Implement one Community Engagement Climate Leader best practice

## *Potential* grant funding opportunities

- Implementing Climate Leader Best Practices
- Municipal building electrification/decarbonization
- Seed funds for a municipal clean energy/climate coordinator
- Support for on-site solar PV + storage for existing buildings and new construction
- Support for geothermal for existing buildings and new construction
- Other innovative projects

## What is a Green Community “in good standing?”

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- Submitted most recent Green Communities Annual Report
- Confirming still meet 5 Criteria
- No active moratoriums on ground mounted solar and/or battery energy storage

## Details on local “climate team”

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- Name of committee, list and affiliation of current members
- The mission or charge of the committee
- For teams can also be a collaboration with a local community-based organization



# Details on Decarbonization Commitment

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- Clean energy/climate resolution
- Climate Action Plan
- An affirmation from the municipal Chief Executive Officer that the city or town remains committed to the goals articulated in the Metro Mayors Coalition Climate Mitigation Commitment

Arlington	Boston	Braintree
Brookline	Cambridge	Chelsea
Everett	Malden	Melrose
Newton	Quincy	Revere
Somerville	Winthrop	

# Decarbonization Roadmap

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- For municipal operations only
- Guidelines for existing buildings:
  - Include as a design option an alternative to fossil fuels for thermal energy that includes low- or zero-carbon fuels or alternative electricity technologies
  - If not practical, projects shall ensure that steps are taken to incorporate plans for the future transition to low or zero-carbon fuels
  - Incorporate building envelop upgrades when technically and fiscal feasible
  - Establish low target energy use intensity
  - Where appropriate , design and install renewable energy and energy storage, while building the infrastructure necessary to support future installations
  - Maximize resilient design to protect critical infrastructure

# Decarbonization Roadmap

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- For new construction or substantial renovation:
  - Strive to achieve zero net energy, where sufficient renewable energy is generated onsite to offset the building's annualized energy consumption
  - Implement energy storage wherever possible, especially when paired with onsite renewables
  - Prioritize sites that provide access to public transportation and alternative modes of transportation

# Zero Over Time

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Roadmaps to use the “Zero Over Time” approach highlighted in the Rocky Mountain Institute’s Guide [\*Best Practices for Achieving Zero Over Time for Building Portfolios\*](#) that uses **triggering events**, such as the:

- End of life of HVAC equipment
- Building renovation
- Roof replacement
- Building replacement

The roadmap should include interventions that reduce the use of fossil fuels onsite by utilizing the information provided above and identify when the interventions will take place

# Focus on Eliminating on-site Fossil Fuels

Targets	2027	2030	2040	2050
Reduce emissions from onsite fossil fuels	-20%	-35%	-60%	-100%
Zero emission vehicles (ZEVs) in light-duty fleet adoption	5%	20%	75%	100%
Zero emission vehicles (ZEVs) in heavy-duty fleet adoption	0%	20%	50%	100%
Energy Use Intensity reduction (deep energy retrofits/retro commissioning)	-20%	-25%	-25%	-30%
<b>Total Emissions Reduction Goals (% of 2022 emissions)</b>	<b>&gt;15%</b>	<b>&gt;35%</b>	<b>&gt;65%</b>	<b>&gt;95%</b>

# Zero Emission-First Vehicle Policy

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- When a vehicle is identified for replacement, acquisitions of ZEVs must be prioritized
- Acquisitions must adhere to the following vehicle efficiency hierarchy:
  - Priority 1: BEVs (and FCEVs)
  - Priority 2: PHEVs
  - Priority 3: HEVs
  - Priority 4: Most fuel-efficient internal combustion or vehicles that run on alternative fuels in accordance with requirements of the Green Communities Fuel Efficient Policy

# Adopt the Opt-In Specialized Code

## Specialized Code: Adoption process & Timeline

Specialized code adoption at the local level, similar to prior stretch code process:

- Warrant article
- Town Meeting bylaw or City Council ordinance vote
- Effective date: Jan 1, or July 1
- Recommend 6-12 months after adoption



### ANNUAL TOWN MEETING 2020 Warrant Article Guide

#### ARTICLE 1: TOWN REPORTS

Through this article, the town accepts the reports of every department and committee in town for the previous calendar year.

#### ARTICLE 2: FISCAL BUDGET

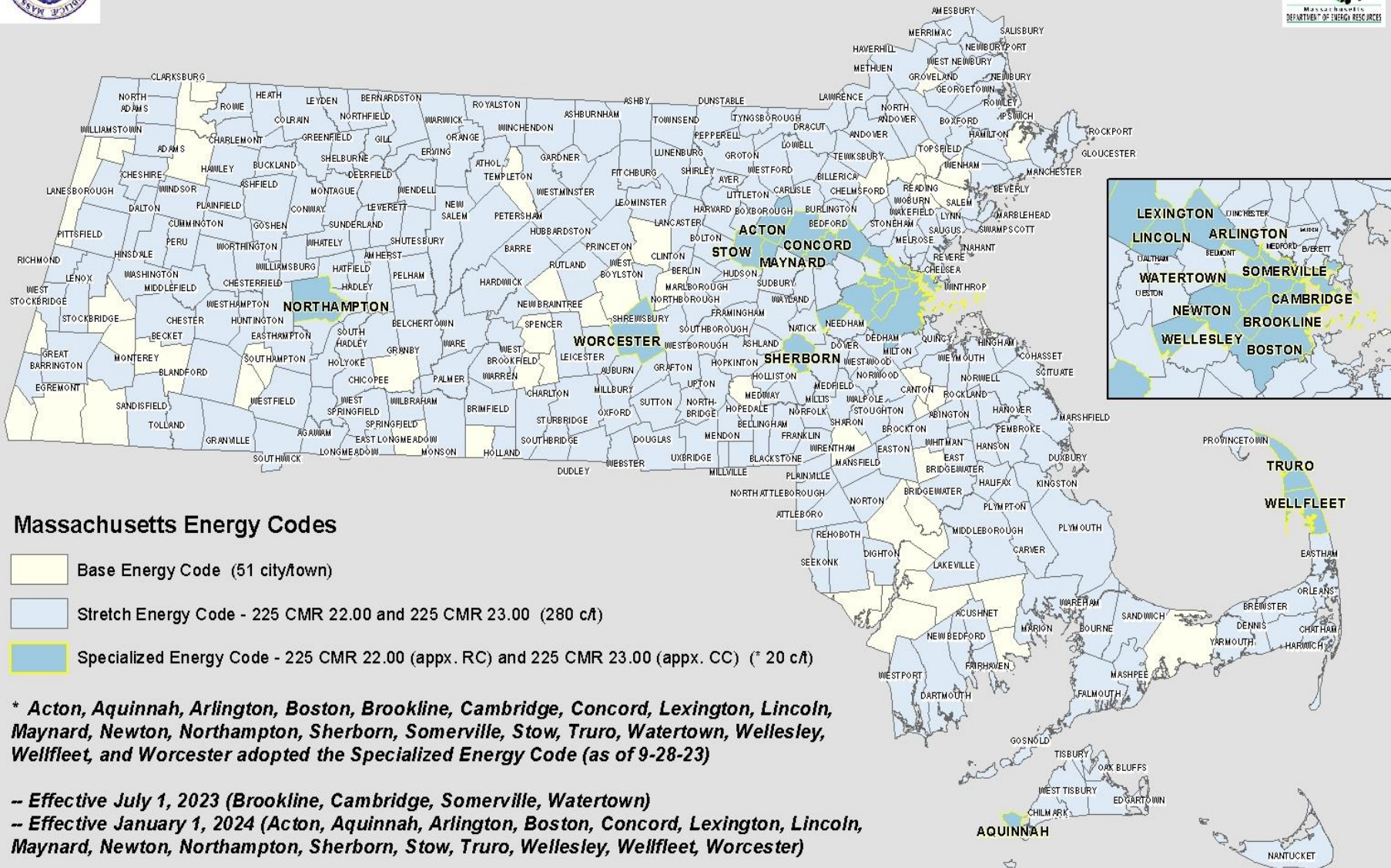
This article approves the operating budget for the Town, Saltery Public Schools and South Saltery Regional High School for the year starting on July 1, 2020. The budget includes all personnel, contractual services, goods and state payments. For detailed information on the budget in the warrant visit Town Manager's Proposed FY20 Budget: <https://www.townofsaltery.com/>

#### ARTICLE 3: FISCAL CAPITAL BUDGET

This article includes capital needs for the town that are under \$500,000. For more information visit: <https://www.townofsaltery.com/>



# Massachusetts Building Energy Code Adoption by Municipality





# Proposed Climate Leaders– Best Practices Recommended

Communities must implement one Community Engagement Activity for 1st recertification cycle

Clean energy and climate policy/planning	Community Engagement – Equity Consideration Required	Clean transportation & mobility
Commercial Property Assessed Clean Energy (C-PACE)	Community Climate Action/Net Zero Plan	Incorporate EV charging stations in parking and/or zoning regulations
Tree City USA Certification	Community Choice Aggregation with 100% Class 1 renewable option	Deploy and/or actively promote the use of publicly accessible EV charging stations within community.
Building benchmarking/performance ordinance	Community Clean Energy Campaign (Solarize, HeatSmart, EV promotion, etc.)	Tier 3 Complete Streets certification <b>PLUS</b> implementation one policy/plan addressing bike/pedestrian safety and access
Streamline permitting for renewables	Youth outreach/education	Fleet electrification plan
Additional "Green Zoning" to promote smart growth, including walkability, reduce heat island effect, and reduction in water runoff	Targeted clean energy for historically marginalized and over-burdened populations. Can be in conjunction with MassSave Community First Partnership and/or Mass CEC's EmPower program	Deploy and/or actively promote EV/E-Bike or "regular" bike share *
Land Policies promoting carbon sequestration	Climate/clean energy event	School bus electrification plan
Electricity for municipal use purchased via competitive supply at least double the minimum RPS Class 1 requirements	<b>Participating in MVP 2.0</b>	Development and promotion of local mobility hub OR micro-mobility

# Funding for Implementation

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- Estimated \$200,000 Year 1 Roadmap assistance
- Estimated \$250,000 Year 1 Deep Energy Retrofit Studies match (*\$25k per study x 10*)
- MassEnergyInsight enhancement to estimate emissions reductions due to clean energy interventions

# Why Be a Climate Leader

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# Access to Enhanced Grants

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- Climate Leader Grants – under consideration:
  - On-site solar + storage on fully electrified buildings
  - On-site solar + storage on new construction
  - Support for ground source heat pumps for existing and new construction
  - Seed funds for energy/sustainability manager (can be shared)
  - Activities on best practices list
  - Other innovative projects
- Part of Competitive Grant application

# Timeline

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Fall 2023	Winter 23-24	Spring 2024
Finalize guidance docs	Award TA	Continue working with communities
Issue EOI	MassEnergyInsight updates	Support Specialized Code votes
Issue RFQ and contract for TA	If interest, organize cohorts of communities to work together	Start accepting applications: deadline 6/30
Issue PON for TA	Draft and Issue Green Communities PON to include Climate Leader section	

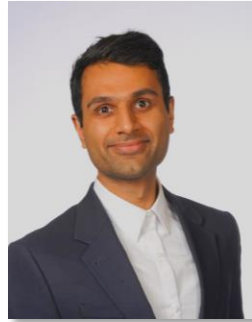
# Green Communities Contacts

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Regional Coordinators act as direct liaisons with cities and towns

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