MASSACHUSETTS
DEPARTMENT OF ENERGY RESOURCES

Climate Leader Communities & Opt-In Specialized Code

Montague, MA

July 21, 2025

Presented by Montague Energy Committee and
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Today's Presentation

- Policy Background
- Overview of Climate Leader Communities Program
- Specialized Stretch Code

Policy Background

Climate Act and Green Communities Climate Leaders

Climate Act 2021

2008 - Global Warming Solutions Act

- Empowered Green Communities Division
- Initial focus on cost-effective energy efficiency

2021 – Climate Act

- Updates GHG emissions limits for Mass to **Net Zero emissions by 2050**, and
- Authorizes the Secretary of Energy and Environmental Affairs (EEA) to establish an emissions limit of no less than **50% for 2030**, and no less than **75% for 2040**.

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Strategy to Achieve Net-Zero Carbon Emissions

Electrify buildings

Electrify vehicles

Clean up the grid

Carbon sequestration*

* Remove and store carbon dioxide from the atmosphere

Climate Leader Communities

What does Climate Leaders offer?

Technical Assistance

$150,000

- Technical studies for the below

Capital funding (Accelerator Grant)

$1,000,000

- On-site Solar PV
- Solar thermal
- Heat pumps
- Energy Storage
- Other decarbonization activities

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**

Decarbonization Commitment & Roadmap

Elimination of all on site burning of fossil fuels in municipal buildings and vehicles by 2050

Decarbonization Roadmap: Zero Over Time

Roadmaps to use the “Zero Over Time” approach that uses triggering events, such as:

End of life of HVAC equipment

Building renovation

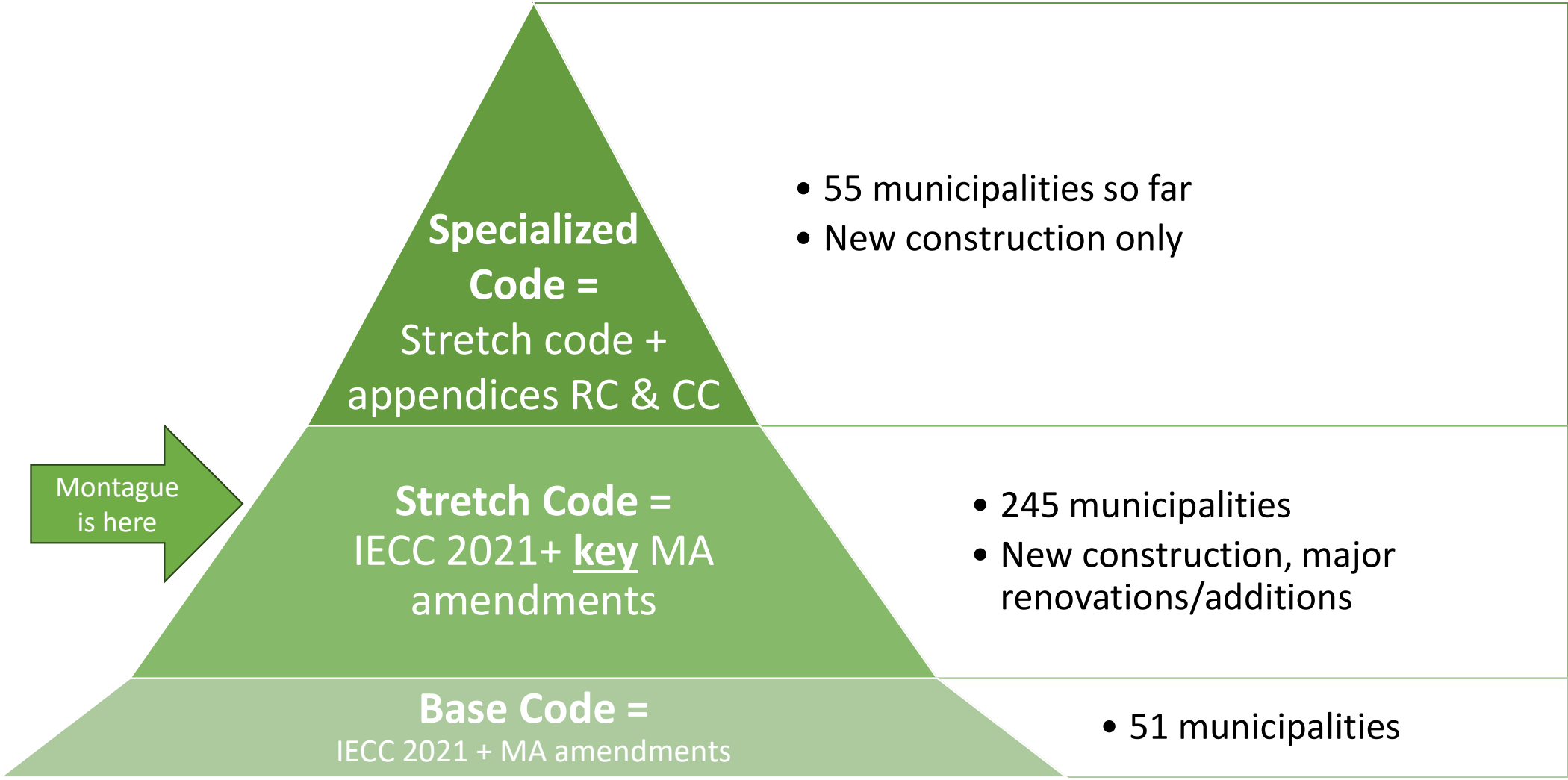
Roof replacement

Building replacement

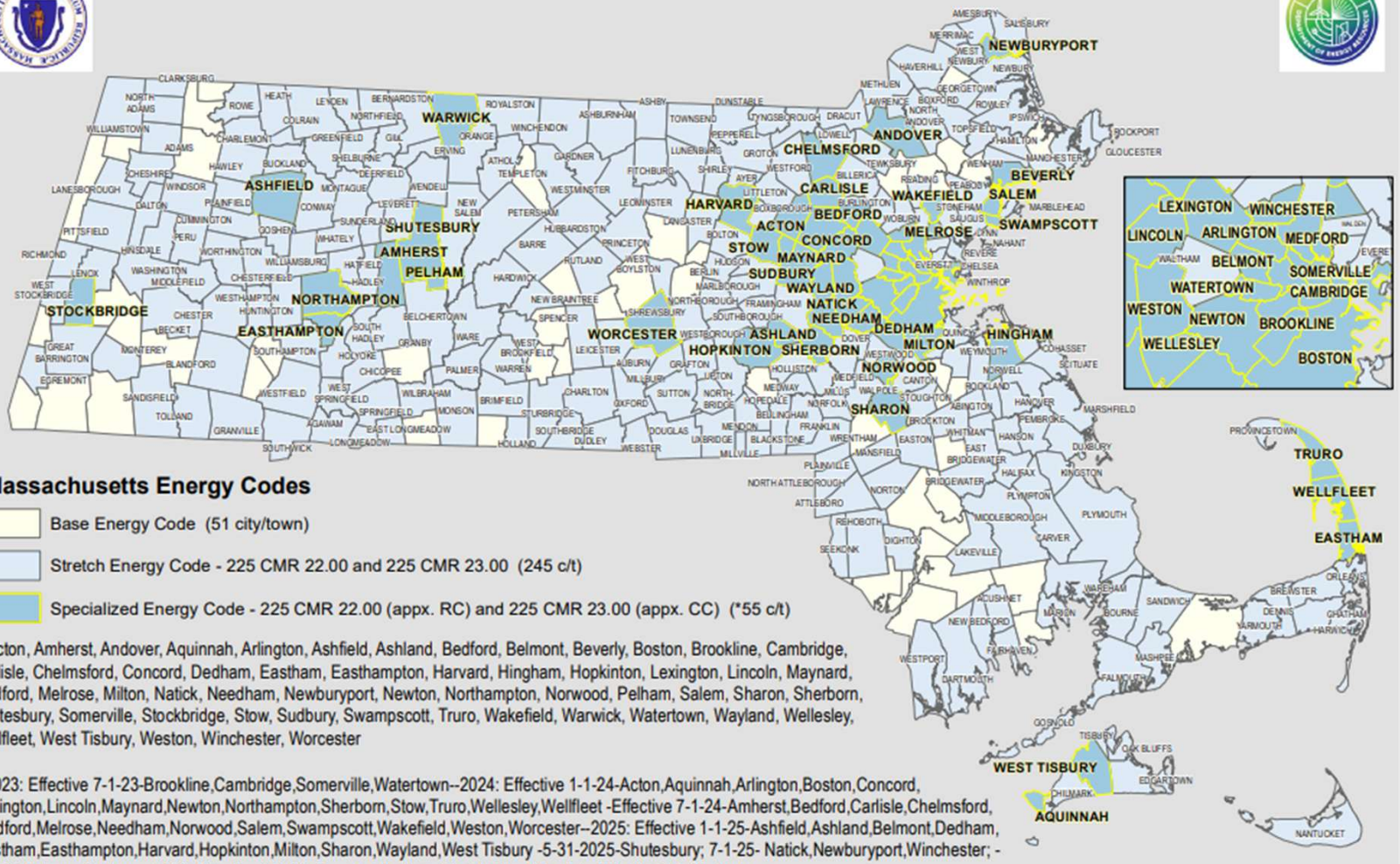
Opt-in Specialized Energy Code

Details of the code for small residential

Base, Stretch, and Specialized – 3 Options



Massachusetts Building Energy Code Adoption by Municipality



Massachusetts Energy Codes

Base Energy Code (51 city/town)

Stretch Energy Code - 225 CMR 22.00 and 225 CMR 23.00 (245 c/t)

Specialized Energy Code - 225 CMR 22.00 (appx. RC) and 225 CMR 23.00 (appx. CC) (*55 c/t)

* Acton, Amherst, Andover, Aquinnah, Arlington, Ashfield, Ashland, Bedford, Belmont, Beverly, Boston, Brookline, Cambridge, Carlisle, Chelmsford, Concord, Dedham, Eastham, Easthampton, Harvard, Hingham, Hopkinton, Lexington, Lincoln, Maynard, Medford, Melrose, Milton, Natick, Needham, Newburyport, Newton, Northampton, Norwood, Pelham, Salem, Sharon, Sherborn, Shutesbury, Somerville, Stockbridge, Stow, Sudbury, Swampscott, Truro, Wakefield, Warwick, Watertown, Wayland, Wellesley, Wellfleet, West Tisbury, Weston, Winchester, Worcester

--2023: Effective 7-1-23-Brookline,Cambridge,Somerville,Watertown--2024: Effective 1-1-24-Acton,Aquinnah,Arlington,Boston,Concord, Lexington,Lincoln,Maynard,Newton,Northampton,Sherborn,Stow,Truro,Wellesley,Wellfleet -Effective 7-1-24-Amherst,Bedford,Carlisle,Chelmsford, Medford,Melrose,Needham,Norwood,Salem,Swampscott,Wakefield,Weston,Worcester--2025: Effective 1-1-25-Ashfield,Ashland,Belmont,Dedham, Eastham,Easthampton,Harvard,Hopkinton,Milton,Sharon,Wayland,West Tisbury -5-31-2025-Shutesbury; 7-1-25- Natick,Newburyport,Winchester; -9-1-25-Pelham,Sudbury--2026: Effective 1-1-26- Beverly,Hingham,Stockbridge,Warwick -Effective 7-1-26, Andover

MA DOER, 6-5-2025, jpfister

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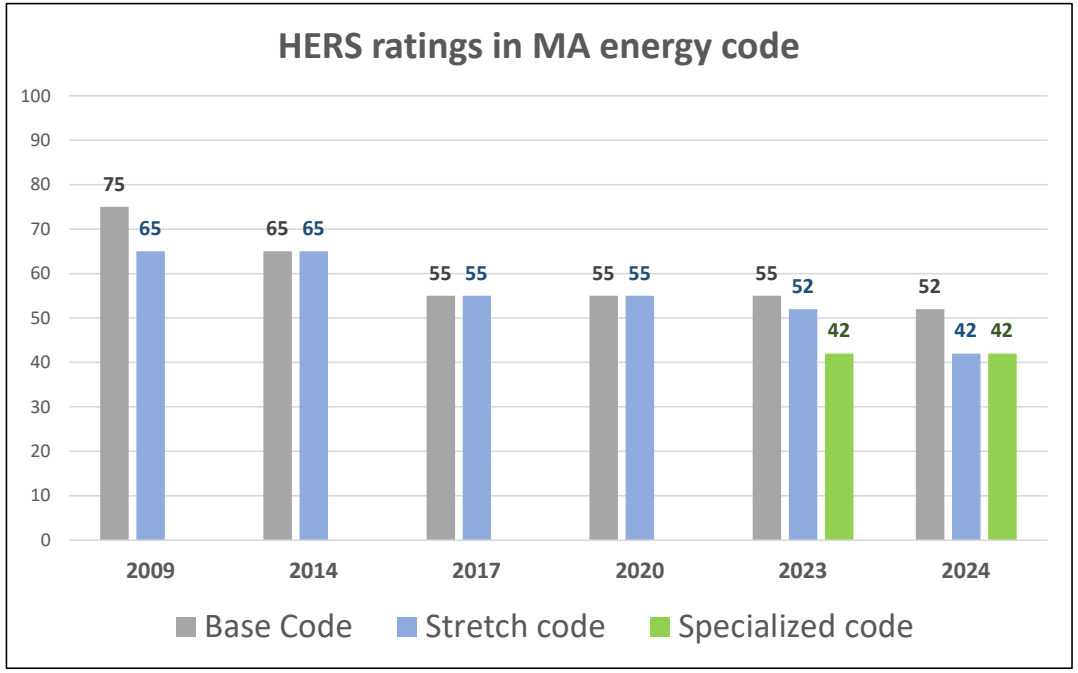
(Simplified) **History of HERS ratings in MA energy code**



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Specialized vs Stretch code - Residential Low-Rise

Energy Source(s)	Home Size	Stretch code (July 2024)	Specialized Code (Jan 2024)
All Electric New Homes	Any Size home	HERS 45 or Passivehouse Same as Stretch Code	
Mixed-Fuel New Homes	Under 4,000 sq ft	HERS 42	**+Solar PV (min 4kw)** **+ wiring for electrification**
	4,000 sq ft and over	HERS 42	**+ Solar PV (to net-zero)** **+ wiring for electrification**
	Any	Passivehouse option	**+ wiring for electrification**
Home additions & alterations	Any	Same as Stretch Code	
Historic or Existing homes	Any	Energy Code exemption if it would damage the historic fabric of the building	

Specialized Residential Code: Solar PV sizing

- Mixed-fuel: Solar required for mixed fuel buildings when there is a **suitable solar-roof zone ≥ 300 sq. ft. AND at right orientation**
  - Can be ground mounted as long as it's on-site
  - Direct ownership or third-party (lease, PPA) allowed
  - No trees need to be cut down
- All-electric: No PV required

A 4-kW system would take up about 230 ft^2 while an 8-kW system would take up 460 ft^2

Home Type	Solar required
All-electric	No
Mixed-fuel < 4,000 sq. ft.	4 kW unless Passive House
Mixed-fuel > 4,000 sq. ft.	Enough for net-zero (8+ kw)
Other residential	0.75 W/sq. ft
Commercial	1.5 W/sq. ft of three largest floors
Commercial high ventilation	0.5 W/sq. ft of three largest floors

Small residential incentives

	Single Family	Small multifamily (2-4 units)
State (Mass Save)	$15,000 for HERS < 46	$17,500 - $22,500 for HERS < 46
	$25,000 for Passive House	$25,000 - $40,000 for Passive House
	Adders for certain technology (induction stoves, heat pump hot water heater)	
Federal (45L) - Expires 6/30/26	$2,500 for Energy Star	$500 for Energy Star $2,500 for Energy Star + prevailing wage
	$5,000 for Zero Energy Ready	$1,000 for Zero Energy Ready $5,000 for Zero Energy Ready + prevailing wage

Solar incentives:

- 30% federal tax credit through 2025
- 15% state tax credit ($1,000 cap)
- Net metering
- Solar Massachusetts Renewable Target (SMART)
- No sales tax, no extra property tax on added value to home

Information on town website

You can find on the Town's Montague Energy Committee webpage

- A summary of the Climate Leader Communities program
- FAQs on the Specialized Stretch Energy Code
- FAQs on the Zero-Emission First Vehicle Policy

https://montague-ma.gov/g/58/Energy-Committee

Specialized Energy Code Resources

Stay in touch

Sign up for DOER energy code email updates:
https://app.e2ma.net/app2/audience/signup/1965182/1356542/

Code language, case studies, detailed technical information here: https://www.mass.gov/info-details/stretch-energy-code-development-2022

Local vote coming up? Contact your local Green Communities Coordinator

https://www.mass.gov/service-details/contact-gc-coordinator

Energy Code Training (free via Mass Save®)

https://www.masssave.com/en/learn/partners/energy-code-training-and-events

Contractor Training

https://www.masssave.com/en/saving/residential-rebates/passive-house-training

Zero Emission-First Vehicle Policy

- Vehicle acquisitions must adhere to the following efficiency hierarchy:
  - Priority 1: Battery Electric Vehicles (BEV), (and FCEVs)
  - Priority 2: Plug in Hybrid EVs (PHEV)
  - 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

This policy shall not require a department to take any action which conflicts with local, state, or federal requirements nor mandate the procurement of products that do not perform adequately for their intended use, exclude adequate purchasing competition, or require the purchase of vehicles that are not commercially available or practicable.

Decarbonization Commitment

Sample Climate Resolution

To be adopted by Town Meeting

*I move that the town of Montague commit to Municipal Decarbonization (**defined as the elimination of all on site burning of fossil fuels in municipal buildings and vehicles**) by 2050 in accordance with state climate goals or act relative thereto.*

Sample Specialized Energy Code Article

Sample Specialized Code Warrant Article

To see if the Town will vote to enact Chapter ___ of the Town of Montague General Bylaws, entitled "Specialized Energy Code" for the purpose of regulating the design and construction of buildings for the effective use of energy and reduction of greenhouse gas emissions, pursuant to the entirety of 225 CMR 22 and 23 including Appendices RC and CC, including future editions, amendments or modifications thereto, with an effective date of [Date], a copy of which is on file with the Town Clerk, or take any other action relative thereto.

MA 10th Edition Building Code | 2025

Small Single Family - Electric

HERS Index (ERI)
45 ▸ 45
Stretch **Specialized**

Electric Heat Pump

Home Details

- 2100 ft²
- Small Single Family
- 3 Bedrooms
- Worcester, MA

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Costs and Benefits to Meet Specialized Code

	COSTS[1,2]	BENEFITS	NET
Solar Costs	**$0** Total Solar Cost	**$0** Rebates	**$0** Cost Compared to Stretch Code
Pre-Wiring Costs[3]	**$0** Total Pre-wiring Cost	**$0** Rebates	**$0** Costs Compared to Stretch Code

1. For All-Electric buildings, there is no cost difference between the Stretch Code and the Specialized Code because the requirements are the same.
2. Pre-wiring and solar costs are only applicable to mixed fuel projects following the Specialized code and do not apply to all-electric buildings.
3. Pre-wiring includes the costs to add a dedicated branch circuit and outlet nearby any equipment currently using fossil fuels for space heating, water heating, cooking, and clothes drying. This does not include the costs associated with upgrading an electrical panel.

HERS Index (ERI)
42 ▸ 42
Stretch **Specialized**

Gas

MA 10th Edition Building Code | 2025

Small Single Family - Gas

Costs and Benefits to Meet Specialized Code*

	COSTS	BENEFITS[3]	NET
Pre-Wiring Costs[5]	**$4,000** Total Pre-Wiring Cost	$0 Rebates[1,2]	**$4,000** Cost Compared to Stretch Code
Solar Costs	**$14,920** Total Solar Cost	**$5,474** Credits[2]	**$9,446** Cost Compared to Stretch Code
Total Costs	**$13,446** Total Additional Costs	**$1,482** Annual Energy Bill Savings[4]	

*Green shaded boxes indicate cost savings, while red shaded boxes indicate added costs.

1. Rebates are calculated on a per unit basis, using Mass Save ® new construction program Base Tier Incentives of $7,500 without any Market Transformation Adders. These incentives are not applicable to mixed fuel projects.
2. Projects with solar installed may be eligible for a Federal 30% Tax Credit of the solar install; and a 15% MA State tax credit of the solar cost, up to $1,000.
3. Mass Save Incentives are not available in communities with municipal light plants, which are locally owned utilities which represent 52 towns that make up about 13% of the MA population.
4. The PV Watts Calculator was used to determine the total kWh saving of the project, using defaults for module type, array type, system losses, tilt, azimuth, etc. The kWh savings was compared to the total kWh used in the energy model. The savings calculation estimates an energy cost of 28.7 cents/kWh.
5. Pre-wiring includes the costs to add a dedicated branch circuit and outlet nearby any equipment currently using fossil fuels for space heating, water heating, cooking, and clothes drying. This does not include the costs associated with upgrading an electrical panel.

Home Details

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