

Mass Cultural Council
December 06, 2022



Mass Save Energy Efficiency Program Overview

WE ARE MASS SAVE®:



A vertical rectangular area on the left side of the slide, filled with a green-tinted photograph of a dense forest of tall trees, viewed from a low angle looking up.

Agenda

Who we are

What we offer

How to engage

Q&A



Together, we make good happen for Massachusetts.

Your local electric and natural gas utilities and energy efficiency service provider are taking strides in energy efficiency: Berkshire Gas, Cape Light Compact, Eversource, Liberty Utilities, National Grid and Unitil.

As one, we form Mass Save[®], with the common goal of helping residents and businesses across Massachusetts save money and energy, leading our state to a clean and energy efficient future.



We Are Mass Save[®]



EVERSOURCE

WE ARE MASS SAVE[®]:



nationalgrid





ELECTRIFICATION



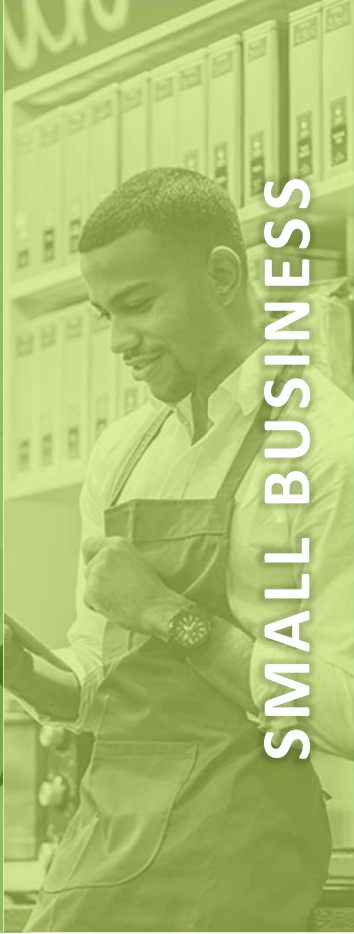
EQUITY



TRADITIONAL MEASURES



WORKFORCE DEVELOPMENT



SMALL BUSINESS



WEATHERIZATION



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Gov. Baker signed climate legislation
to reduce
GHG emissions,
protect environmental
justice communities



Law will
combat climate
change
while **growing the
economy**



The
Commonwealth of
Massachusetts
has set a goal to
reach **net-zero
emissions by 2050**

What we offer

- HVAC
 - Boilers, furnaces, water heaters
 - Heat pumps
 - Chillers & air conditioners
 - Controls & building management systems (BMS) installations
- Variable frequency drives (VFD/VSD)
- Lighting systems & controls
- Kitchen equipment
- Retro-commissioning
- Process equipment

<https://www.masssave.com/en/business/rebates-and-incentives>





Program Offerings



Electrification



Conversion from
fossil fuel to
electricity



Aligned with a shift
toward a cleaner
electrical grid



Path to reducing
GHG emissions

Electrification encompasses more than just the energy efficiency programs, but electrifying Massachusetts' built environment is a significant step in achieving the commonwealth's goals.

Emphasis on Commercial Heating Systems

Development of prescriptive heat pump incentives for most commercial installations.

- Expanded equipment eligibility
- Increased incentives

Greater engagement across the entire heat pump supply chain





Streamlined Heat Pump Pathway

New Incentives/Offers for C&I Installations

Air Source Heat Pumps

Includes single- and multi-head split systems, as well as central and RTU systems

\$2,500/ton

Air Source Variable Refrigerant Flow (VRF)

Includes systems larger than 5.4 tons that meet AHRI Standard 1230

\$3,500/ton

Ground Source Heat Pumps

Includes both closed and open loop systems

\$4,500/ton



Fuel reduction/displacement

Integrated controls or EMS sequences to manage operation

Recommended switchover temperature of 30°F or below

Pathway is “fuel-blind”

Simplified savings estimates

Smaller projects in existing buildings

Project threshold: 150 tons total capacity

For more info and application go to:

<https://www.masssave.com/en/business/rebates-and-incentives/heating-and-cooling/heat-pumps>



C&I Heat Pumps

www.MassSave.com/cihpppl

Equipment Type	Rebate (\$/Ton)	Equipment Capacity	EER	SEER / IEER	HSPF/ COP ¹	Capacity Ratio ²
Air Source Heat Pumps (ASHP)	\$2,500	< 5.4 tons	-	Central Ducted Systems		
				16	9.5	60%
			-	Ducted & Ductless MSHP Multi-Zone		
				16	9.5	58%
		-	Ductless Mini-Split Single Zone			
			18	10	58%	
			≥ 5.4 and < 11.3 tons	11.1	13.5	3.4
	≥ 11.3 and < 20 tons	10.7	12.5	3.3	-	
	≥ 20 and < 150 tons	9.6	12	3.3		
Air Source Variable Refrigerant Flow Heat Pumps (VRF)	\$3,500	≥ 5.4 and < 11.3 tons	11.5	20	3.4	-
		≥ 11.3 and < 20 tons	11	18	3.3	
		≥ 20 and < 150 tons	9.6	18	3.3	-
Ground Source Heat Pumps – Closed Loop (GSHP-C)	\$4,500	< 150 tons	15	-	3.4	
Ground Source Heat Pumps – Open Loop (GSHP-O)		< 150 tons	19	-	4.0	-

¹ COP rating at 47F per AHRI sheet for Air Source Equipment.

² Capacity ratio is the heating capacity rating at 17F divided by the rating at 47F

When to Utilize the Custom Pathway

Project-specific engineering estimates will still be appropriate for many heat pump applications, especially:

- New buildings
- Large systems
- Complex internal distribution layouts





Weatherization

Commercial Weatherization

Buildings $\leq 8,000$ sf:
Prescriptive

- Attic insulation, wall insulation, attic air sealing

8,001 sf to 100,000 sf:
Custom Express

- Insulation, air sealing, weatherstripping

$>100,000$ sf
Custom

- Custom weatherization projects

- Reduce barriers to participation for commercial customers
- Offer consistency to installation vendors
- Increase incentives for weatherization projects



Small Business Pathway

Small business/turnkey pathway eligibility



Commercial customers with annual usage less than 1.5 million kWh or 40,000 therms of natural gas



Available measures include lighting & lighting controls, thermostats, water-saving devices, and refrigeration and BMS controls, heat pumps and HVAC equipment, and weatherization

Small Business Turnkey Process



Small businesses visit the Mass Save website* to identify their program sponsor



Customer contacts their PA to schedule an energy assessment



Turnkey vendor provides a report outlining opportunities for energy savings



Energy savings measures chosen by the customer are installed by the turnkey vendor

*<https://www.masssave.com/en/business/programs-and-services/building-energy-assessments/small-business-assessments>

Energy Assessment Process



Customer has 3 options if they wish to utilize their own contractor outside of the previously described energy assessment process:

Option 1 – Customer Directed Option (Varies by PA)

- Receive many benefits of an energy assessment, but using your contractor
- Application must be submitted in advance of installation, to confirm existing conditions, review proposed equipment and as part of pre-install verification an energy assessment is performed on the rest of the building not covered under the proposal

Option 2 - Applications

- Complete incentive application for your retrofit or new construction/ major renovation project (**some require pre-approval before installing**)
- Per unit incentives or custom incentive:
 - Lighting & Controls
 - HVAC
 - Refrigeration
 - Motor & Drives
 - Custom Projects
 - And More

Option 3 – Instant Incentives

- Instant incentives available on eligible equipment at point of purchase from participating dealers and distributors
 - Commercial Lighting
 - Commercial Kitchen Equipment
 - HVAC Equipment
 - Water Heating

Other Initiatives



Active demand reduction

- Targeted Dispatch:
 - 1-8 events/summer, 3 hours each
 - \$35/kW-summer (avg. performance)
- Daily Dispatch:
 - 30-60 events/summer, 2-3 hours each
 - \$200/kW-summer (avg. performance)
- Offers are technology-agnostic *except for fossil-fuel generators/CHP*
- Small commercial customers are also able to participate via direct load control pathways such as thermostats & batteries



Electric Vehicles

- Electric distribution companies (EDCs) offer incentives & rebates in support of electric vehicle supply equipment (EVSE)
- National Grid
 - <https://www.nationalgridus.com/electric-vehicle-hub/Programs/Massachusetts/>
- Eversource
 - <https://www.eversource.com/content/ema-c/residential/save-money-energy/clean-energy-options/electric-vehicles/charging-stations>
- Unitil
 - <https://unitil.com/electric-vehicles/electric-vehicle-programs-in-development>



Deep Energy Retrofit

40% greenhouse gas reduction

Compared to existing conditions
Significant technical assistance

\$1/ft² incentive

In addition to standard offerings

3 years to completion

Roadmap for success
Enhanced commissioning



Renewable Energy (PV)

- Solar Massachusetts Renewable Target (SMART)
 - Declining block incentive program
 - Tariff-based incentive is paid directly by the utility company to the system owner
 - Subject to approval by the Solar Program Administrator and DOER

<https://www.mass.gov/info-details/solar-massachusetts-renewable-target-smart-program>



Questions?

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Thank you

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