













Challenges from the Field



- Deferred maintenance
- Knowing what comes first, next, and what can wait
- Navigating gov't hurdles (municipal, state, and fed)
- Ex. Procurement, City Council, Funding Cycles
- Finding a champion
- Knowledge to run the latest technology
- Finding money to make projects happen this may be #1 for all of you



















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, 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®:



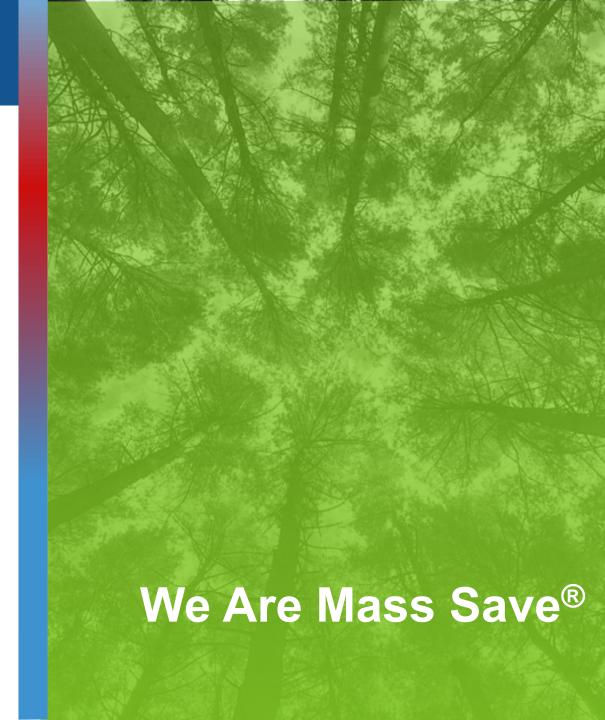






national**grid**





Benchmarking/ Prioritization

Measure Identification

Investment Decision



Portfolio Prioritization Plan

Comprehensive Building Assessment

Identify buildings with greatest potential; capture building data

Scope

opportunities for energy efficiency + electrification



Focused Study

Detailed,
actionable project
estimates



Decarbonization Roadmap

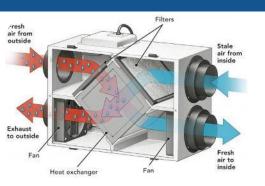
Holistic approach to **identify** and **plan large scale** decarbonization

Incentives for Getting Electrification-Ready





Weatherization



Ventilation



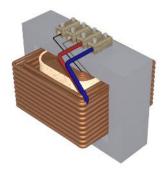
Controls



Hydronics



Variable Frequency Drives



Transformers

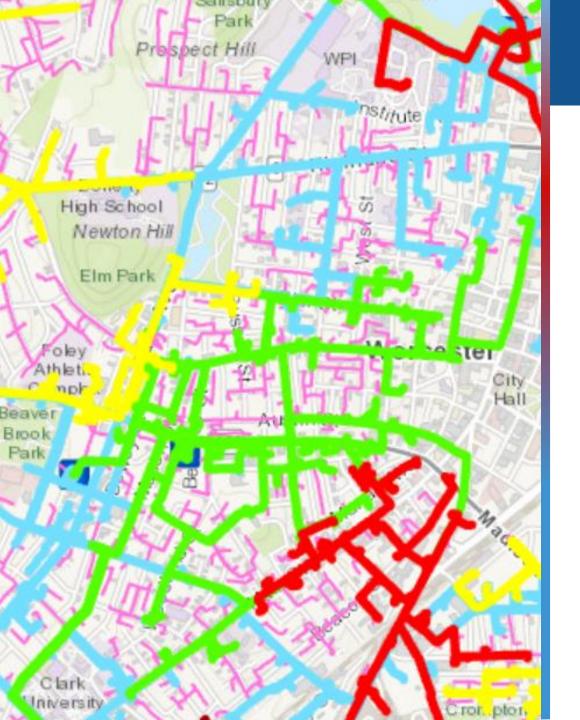


Compressed Air



Lighting Controls

https://www.masssave.com/en/business/rebates-offers-services





Some of the Barriers to Electrification

- Economic viability
- Existing building electrical infrastructure
- Existing grid capacity
- Utilizing existing heating distribution systems
- Timing with other projects
 - roofs, other failing equipment, etc.

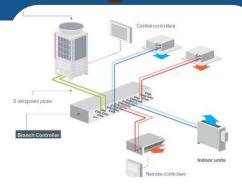
Electrification of Existing Buildings



Air Source Heat Pumps



Heat Pump Rooftop Units



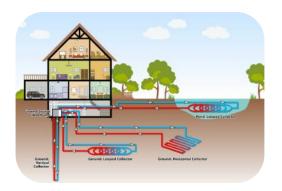
Variable Refrigerant Flow



LEV Kits



Heat Pump Chiller/Air to Water



Ground Source Heat Pumps

Prescriptive Rebates

Custom Path





Eligible equipment (must be on QPL)

- Air source (air-to-air) heat pumps
- Variable refrigerant flow air source heat pumps
- Ground source heat pumps (geothermal)

Eligible Projects

< 150 tons, partial or full displacement Used for space heating and cooling

Rebate amount

Rebates are based on tonnage



Use custom for...

- Projects >150 tons
- Equipment not covered by prescriptive offer
- Process heating

Eligibility criteria

- Must produce net MMBTU reduction
- Must NOT increase GHG emissions
- Must meet cost-effectiveness criteria

Incentive amount

Incentives vary based on scope and cost





Help with Overcoming Challenges

- Studies
- Incentive funding
- School's initiative
- Electrification engineers
- Project expeditors
 - Chapter 25a
- Mass Save incentives for training
 - Building Operator Certification (BOC)



The Biggest Challenge – Finding Additional



 MA Department of Energy Resources
 (DOER) Green
 Communities



Transforming
 Energy in Schools
 Initiative Program
 (DOER)



MA Clean Energy
 Center (MassCEC)
 Green School Works
 program



 MA School Building Authority (MSBA)
 heat pump program



From the field: How can we help customers braid funding sources together when possible?