



CLIMATE CHANGE LAWS & POLICIES IN MASSACHUSETTS

2003 – Present (Updated July 31, 2023)

CLIMATE CHANGE

Climate change and global warming have been topics of worldwide concern for over 50 years.

Key concerns center around reducing harmful air pollutants and cutting Greenhouse Gas (GHG) emissions.





AIR POLLUTANTS

- Carbon Dioxide (CO₂)
- Methane (CH₄)
- Nitrous oxide (N₂O)
- Sulfur hexafluoride (SF₆)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)

CLEANING UP THE ELECTRIC GRID **RENEWABLE PORTFOLIO STANDARD**

- The Massachusetts RPS **requires** retail electricity suppliers to obtain a percentage of the electricity they produce for their customers from renewable energy sources.
- The RPS began with a compliance **obligation** of one percent in 2003.
- The compliance increased by one-half percent annually until it reached four percent in 2009.
- In 2009 the RPS obligation was set to increase by 1% annually.





OUR ELECTRIC GRID: ISO NEW ENGLAND

- Current fuel mix to produce power (7/31/23):
 - 56% natural gas
 - 9% renewable fuels (wind, solar, wood, refuse & landfill gas)

2008: A Landmark Year for Climate Change & Energy Efficiency Laws

- **Global Warming Solutions Act (GWSA)**

The GWSA requires the Commonwealth to set economy-wide GHG emission reduction goals that will achieve reductions of:

1. Between 10% and 25% below statewide 1990 GHG emission levels by 2020.
2. At least 80% below statewide 1990 GHG emission levels by 2050.



MEASURING GHG

- Department of Environmental Protection (MassDEP) has **mandatory** GHG reporting regulations for certain facilities and producers of electricity.
- MassDEP also gets authority under the federal **Clean Air Act of 1970**.
- MassDEP and state energy office also calculate and report on harmful emissions from the **thermal** sector (heating) and from **transportation** fuels.

2008: Regional Greenhouse Gas Initiative: Funding Climate Change & Electrification

Massachusetts and 11 other northeast states signed RGGI to develop a market-based system for reducing carbon dioxide CO₂ emissions from power plants.

States sell CO₂ allowances through auctions and invest proceeds in energy efficiency, renewable energy, and other consumer programs including electric heat pump rebate programs.

Massachusetts has received over \$776 million in RGGI proceeds.

Since 2008, Massachusetts has invested more than \$500 million in RGGI funds to advance the Commonwealth's energy goals and energy efficiency programs.

2008: Green Communities Act

Reformed the energy marketplace to help the state **meet the GWSA targets**. Expands energy efficiency programs, supports the development of renewable energy resources, created greener state building codes, and encourages technology innovation.

Law created the **Energy Efficiency Advisory Council** to develop new energy efficiency programs for the gas and electric utilities every 3 years – the **Mass Save equipment rebate program** – that is subsidized by a fee paid by all gas and electric customers of the state's investor-owned utilities.



2008: Clean Energy Biofuels Act

Massachusetts enacts the **first “biofuels” mandate** in the U.S. for heating oil and on-road diesel. The law required a 2% (B2) blend in both fuels by July 1, 2010, B3 in 2011, B4 in 2012 and B5 in 2013.

State energy officials **suspended** the implementation of the law on June 30, 2010, stating that “meeting the mandate is not feasible due to lack of supply, lack of blending facilities or unreasonable cost.”

MEMA has worked **unsuccessfully** for 13 years to reinstate the mandate.



Massachusetts Clean Energy Center

Established by statute in 2009.

Independent governmental entity within the Executive Office of Energy and Environmental Affairs.

Funded by the Renewable Energy Trust – a small per kilowatt surcharge on customers of public and municipal electric utilities.


Budget: \$24 million

Mission: “To grow the state’s clean energy economy while helping to meet the Commonwealth’s clean energy, climate and economic development goals.”


Administers “clean heating and cooling programs” such as a \$500K rebate program for whole-home air source heat pumps back in 2021.

Alternative Energy Portfolio Standard (APS)

In 2014 legislature expands the RPS program to include the APS program to assist in incentivizing the installation of “eligible alternative energy systems” that **“contribute to the Commonwealth's clean energy goals by increasing energy efficiency and reducing the need for conventional fossil fuel-based power generation.”**



APS regulations implemented in January 2018. Alternative Energy Certificates (AECs) are available for eligible thermal technologies including liquid biofuel, electric heat pumps, solar and combined heat & power.



79 retail heating oil currently participate in the APS and receive AECs for biofuel sales of B10 or higher. “Eligible liquid biofuels” for the APS program are limited to only UCO – biofuel made from used cooking oil.

2017 COURT DECISION SETS NEW CLIMATE CHANGE AGENDA FOR MASSACHUSETTS

Conservation Law Foundation (CLF) **sues Massachusetts** for failure to implement carbon-reduction goals mandated by the 2008 Global Warming Solutions Act.

Massachusetts Supreme Judicial Court rules that MassDEP must adopt regulations to ensure volumetric reductions in greenhouse gas emissions, and that those limits must decline on an annual basis.

CLF's attorney said, "Today our highest court declared clearly and unequivocally that our leaders can no longer **sit on their hands** while Massachusetts communities are put at risk from the effects of climate change."

Governor Baker issues Executive Order No. 569, Establishing an Integrated Climate Change Strategy for the Commonwealth, directing the Secretary of Energy and Environmental Affairs to **publish comprehensive energy plans**.

ENERGY PLANS PROMOTE ELECTRIFICATION

2018 MA Comprehensive Energy Plan

- Plan calls for, “Aggressive fuel switching to electrification and biofuels.”
- “Increase adoption of heat pumps to an average of 25% of oil-heated homes” by 2030.

“The heating oil industry needs a plan of its own before it’s electrified out-of-business.”

Patrick Woodcock

*Former Undersecretary of Energy and former MA
DOER Commissioner*



WHY ELECTRIFY?

- Massachusetts, New England & the northeast are trying to reshape the fuel mix of the electric grid to 100% renewable sources: wind, solar, wood, refuse.
- Goal: Provide renewable electricity to every home and business in Massachusetts and do away with fossil fuels for heating.

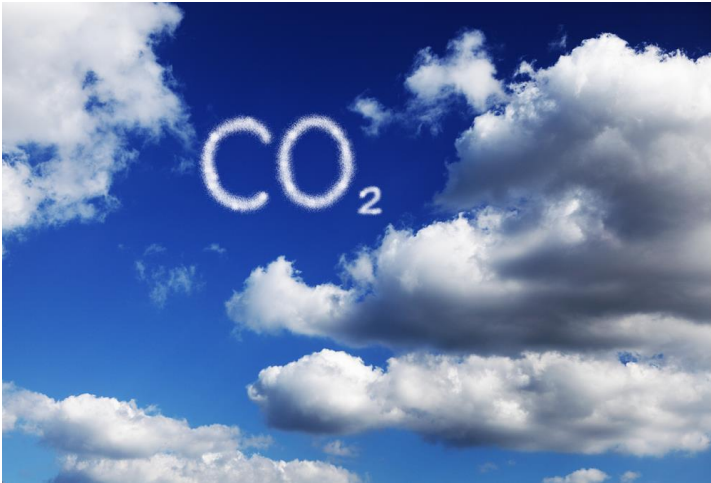


ENERGY PLANS PROMOTE ELECTRIFICATION

2020 MA Interim Clean Energy & Climate Plan & 2050 Roadmap to Decarbonization

- Plan targets **net-zero** emissions by 2050.
- Plan states, “Sales of **electrified** and other clean or renewable heating alternatives need to ramp up quickly.”
- Plan states, “**About one million residential gas, oil, and propane furnaces and boilers will likely reach their end-of-life between 2021 and 2030.** Heat pump systems, which provide both winter heating and summer cooling, are poised to provide a ready, cost-effective 2050-compliant replacement as they can provide efficient heating in cold climates.”
- Plan states, “Heat pump systems will translate to **overall societal cost savings** in the coming decades.”
- Plan aims to “accelerate efficiency and electrification primarily through a high-performance **stretch energy code.**”

COMPREHENSIVE CLEAN ENERGY & CLIMATE PLAN



- **Interim Plan Finalized in 2022:**

Muti-faceted climate action plan that included the formation of the **Commission on Clean Heat** to “advise the Administration on strategies and policies to achieve deep emissions reductions from the use of heating fuels in the Commonwealth.”

2021 CLIMATE CHANGE LAW

An Act Creating a Next-Generation Roadmap for Massachusetts Climate Policy.

- Establishes new interim goals for GHG emissions reductions by 2025, 2030 with a goal of **net-zero emissions by 2050**.
- Required the Secretary of Energy & Environmental Affairs to set GHG reduction requirements for the 2022-2024 **Mass Save** Energy Efficiency Plan by July 15, 2021.
- Increases protections for **Environmental Justice (EJ)** communities across Massachusetts.
- Authorized the development of new energy “**stretch codes**” that favor electrification in new construction across Massachusetts.
- Commonwealth must procure additional megawatts of **offshore wind** energy by 2027.
- Authorizes \$12 million for MassCEC for development of clean energy workforce, training program for heating oil dealers on electric heat pumps and **retraining of fossil fuel workers**.

EXPANDED USE OF BIOFUEL

April 2021: Governor Baker Issues **Executive Order No. 594: Decarbonizing and Minimizing Environmental Impacts of State Government**

- Reduce GHG emissions from onsite heating oil use at state-owned buildings by using at least a B10 blend of “biofuel” and reduce emissions in state-owned vehicles by using at least a B5 blend of “biofuel.”
- Emissions reduction goals under Executive Order:

20% by 2025, 35% by 2030, 60% by 2040 and 95% by 2050



CLIMATE CHANGE: LOCAL ACTION

- September 30, 2021: Boston City Council passes Building Energy Reporting & Disclosure Ordinance.
- In 2019, the Town of **Brookline** overwhelmingly approved a bylaw banning fossil fuel installations in any new construction and major building rehabs.
- **MEMA challenged** the bylaw before the Attorney General arguing that it superseded the state's building code and was contrary to case law. The AG agreed and overturned the Brookline bylaw.
- **MEMA challenged** a second attempt by Brookline to enact a similar bylaw, and the AG rejected that proposal in February of 2022.
- February 2023: **MEMA & National Grid beat back** attempt by Brookline to overturn AG's rulings in Superior Court.
- July 31, 2023: Boston Mayor Wu signs executive order banning fossil-fuels in city-owned buildings and building rehabs.



OTHER KEY DEVELOPMENTS: 2021 & 2022

- Governor Baker **abandons** plan to establish a regional Transportation Climate Initiative (TCI) that would have capped and reduced greenhouse gas emissions from the transportation sector.
- MEMA secures a seat on the **Commission for Clean Heat** in January 2022. Charlie Uglietto (Cubby Oil & Energy) was appointed by Baker along with 21 others.
- July 2022: Massachusetts lawmakers enact additional climate change legislation that includes a 10-city/town demonstration project for **“fossil fuel free”** new construction.

ENERGY EFFICIENCY ADVISORY COUNCIL

- In January 2022, the MA Department of Public Utilities approved the 2022-2024 \$3.9 billion energy efficiency plan – **Mass Save** – for the state's gas and electric utilities
- The original plan **eliminated** equipment rebates for oil-fired systems but MEMA was able to restore rebates for oil-fired furnaces & for boilers for low-to-moderate income customers.
- The plan directs millions of dollars for **higher incentives** for electric heat pumps installed in heating oil & propane heated homes.



COMMISSION ON CLEAN HEAT

In December of 2022, former Governor Baker released the final report from his Commission on Clean Heat.

Governor Maura Healey, who has proclaimed the state must “electrify everything” has acted on two recommendations in the report including:

1.) The development of a Clean Heat Standard for all fossil fuels used in the building sector. The MassDEP has begun preliminary rulemaking for a CHS.

2.) Established Community Climate Bank. \$50 million in seed money from MassDEP. Focus on reducing GHG emissions in the affordable housing sector.

