

CELEBRATING 40 YEARS

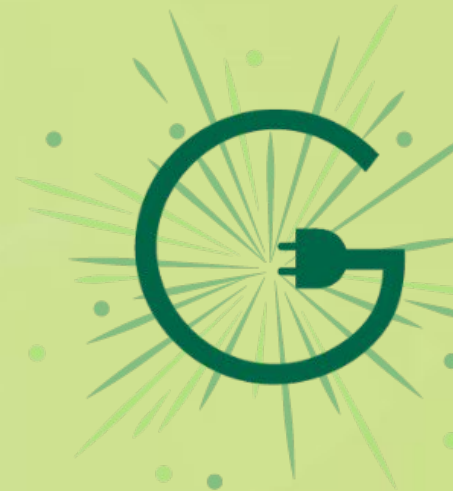
Clean Energy Caucus

March 13, 2023

Green Energy Consumers Alliance

Harnessing our power as energy consumers to speed the transition to a zero-carbon future.

- **Non-profit founded in 1982**
- **Massachusetts & Rhode Island**
- **Programs & Advocacy**



Clean Transportation



Big Picture

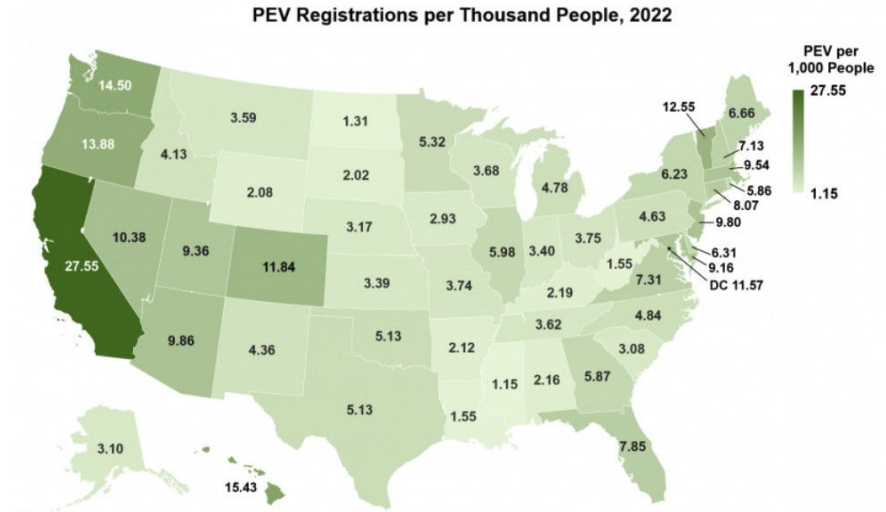
- Commonwealth must cut economy-wide greenhouse gas emissions 50% by 2030.
- Clean Energy & Climate Plan for 2025 & 2030 (CECP) calculates that **transportation sector emissions must reduce 34%** to make that happen.
- How? Electrification + reducing vehicle miles traveled



Electrification Goals

- 5.5 million vehicles registered in Massachusetts
- ~70,000 are electric now (source)
- 200,000 must be electric by 2025, per the CECP
- 900,000 must be electric by 2030

We need all the tools in the toolbox!



Source.



An Act funding the transition to electric vehicles

- SD.813 (Senator Creem) & HD.2753 (Rep Owens)
- Would assess a fee on new gas-powered cars over \$60,000, corresponding to vehicle weight
- Revenue to fund Electric Vehicle Incentive Fund
- Why do we need it? — We need to fund upfront EV incentives until EVs reach price-parity with gas cars, and this is a fair funding stream that does not compete with other uses of RGGI funding.



An Act establishing off-peak charging rebates

- SD.2265 (Senator Keenan) & HD.971 (Rep Owens)
- Directs the DPU to call for off-peak charging rebates from electric utilities
- Those off-peak rebates to include ALL the benefits of shifting load:
 - avoided energy and capacity costs
 - avoided transmission costs
 - avoided distribution costs
 - improved grid reliability
 - capacity benefits in the form of demand induced price reduction effects
 - avoided greenhouse gas emissions
 - public health benefits
- Why do we need it? — To protect our grid, bring costs down for all ratepayers, and incentivize EV adoption



All those benefits matter!

	National Grid calculated off-peak rebate (¢/kWh)	Applied Economics Clinic calculated off-peak rebate (¢/kWh)
Energy cost reduction	2.0	1.9
Capacity cost reduction	3.0	3.5
Transmission cost reduction	0	2.7
Distribution cost reduction	0	3.0
Reliability cost reduction	0	0.8
Capacity DRIPE cost reduction	0	1.4
Emissions cost reduction	0	1.8
Total	5 cents / kWh in the summer	14.1 cents / kWh in the summer

Note: These figures were calculated using wholesale prices in 2021, before the invasion of Ukraine.

Source: Applied Economics Clinic testimony.



Fleet Electrification

- **An Act setting deadlines for school bus and public fleet electrification, and programs to encourage electrification of private fleets, SD.1195/HD.1543**
Senator Crighton; Reps Barber & Meschino
- 100% of public fleet purchases to be electric by 2026
- Whole fleet to be electric by 2035
- *ZEV Coalition priority bill



An Act setting deadlines to electrify the commuter rail

- SD.1190 (Senator Crighton) & HD.2742 (Reps Owens & Armini)
- Directs MBTA to electrify commuter rail fully by 2035 and implement frequency standards
- Prioritization of routes through environmental justice communities
- *ZEV Coalition priority bill



An Act electrifying regional transit authorities

- SD.1370 (Senator Oliveira) & HD.2553 (Rep LeBoeuf)
- Sets schedule by which new vehicle purchase by RTAs must be electric, starting at 40% in 2025 and reaching 100% in 2035
- DOT to create a central planning and procurement office by August 30, 2024; that office to create a bus electrification plan for each RTA by June 30, 2025
- *ZEV Coalition priority bill



Honorable Mentions

- **School bus electrification:** Senator Creem's *Act promoting access to zero-emission school buses* (SD.647) & Senator Rausch's *An Act establishing a zero-emission school buses grant program* (SD.2269)
- **State fleets:** Senator Barrett's *An Act to convert the state government fleet to electric vehicles* (SD.1492)
- **Right to charge:** Senator Creem's *An Act relative to the installation of electric vehicle charging stations by condominium owners* (SD.351) & Rep Owens & Rep Ciccolo's *An Act to ensure the right to install electric vehicle charging stations* (HD.2515)
- **E-bikes:** Rep Blais' *An Act expanding community access to electric bicycles* (HD.3264)



Heating Sector

An Act Relative To The Clean Heat Standard

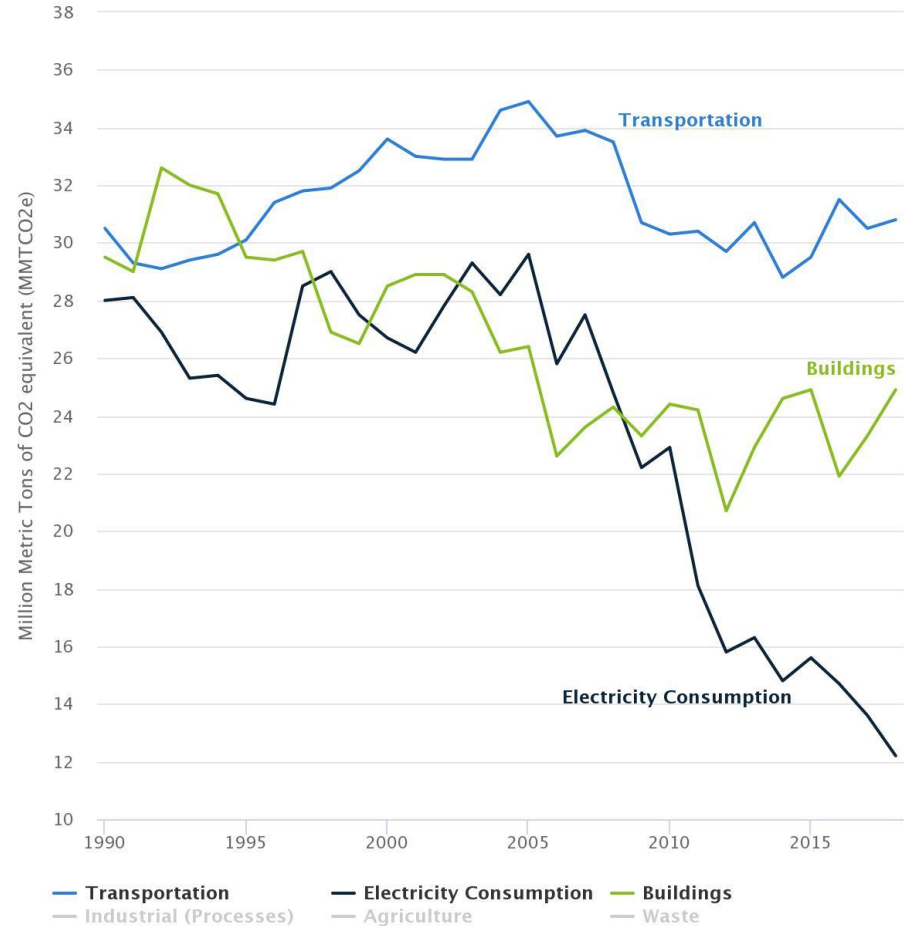
HD.3309

Sponsor Rep Driscoll

**Building
emissions only
fell 4% in the
2010's**

MA GHG Emissions for Major Sectors, 1990–2020

Source: MassDEP (2021). Massachusetts Annual Greenhouse Gas Emissions Inventory: 1990 through 2018



How Can We Do Better?

- **Implement a Clean Heat Standard**

**A performance-based standard
requiring heat providers to deliver a
gradually increasing percentage of
low-carbon heat**

**Measured by delivery at the consumer
level**

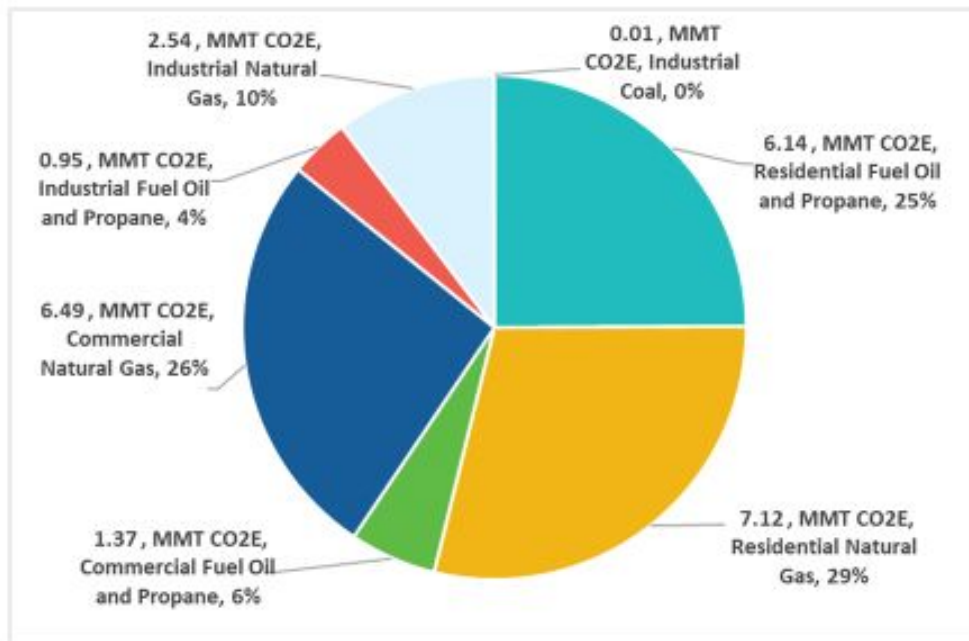


Thermal Fossil Fuel Emissions in MA

Thermal sources:

65% pipeline gas
35% fuel oil &
propane

54% Residential
32% Commercial
14% Industrial



Source – MassDEP GHG inventory, 2018

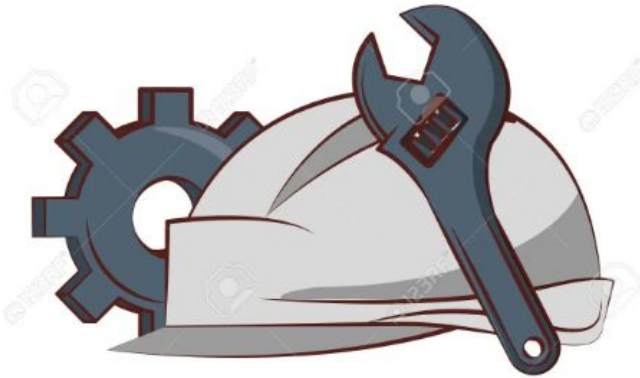
Under HD.3309 projects that reduce building emissions earn clean heat credits based on expected emission reductions from the project.



Gas, propane, and oil heating fuel sellers need to have and retire a certain amount of clean heat credits every year based on their emissions and what is needed to hit the states climate goals.



Obligated parties have multiple options.



Help their customers lower their home's emissions in exchange for the credits generated.



Buy clean heat credits from others.



Pay non-compliance payments which go to energy efficiency programs.



Equity Provisions

- 40% of clean heat credits need to come from low-and-moderate-income households.
- Allows DOER to go further in frontloading low-and-moderate-income households.
- Sets up an Equity Advisory Group to provide further guidance on protecting low-and-moderate-income households.

Advantages of a clean heat standard:

- Shifts the cost of home electrification subsidies from the electric rate onto fossil fuels.
- Aligns the incentives of gas utilities and delivered fuel sellers with the state's climate goals.
- Increases the financial incentive for building owners to electrify.

Clean Heat Standards are moving forward in other states.



Vermont's expected to pass with a veto-proof majority this session after being vetoed last year.



It's in the early implementation stage in Colorado.

Contact Information

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Heating Sector

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