Maine Climate Council

Energy Working Group Meeting

Co-Chairs:
Dan Burgess, Governor's Energy Office
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MAINE WON'T WAIT
A FOUR-YEAR PLAN FOR CLIMATE ACTION
MAINE CLIMATE COUNCIL

GOVERNOR'S OFFICE OF
Policy Innovation and the Future

MAINE DEPARTMENT OF
Environmental Protection

July 14, 2025

Meeting Agenda

1. Welcome & Meeting Overview
2. Energy Updates from the Legislative Session
3. Progress on Strategy C of *Maine Won't Wait*
4. Federal Programs and Funding Updates
5. Next Meeting & Adjournment

LEGISLATIVE OUTCOMES

1st Session of the
132nd Maine Legislature

MAINE WON'T WAIT
A FOUR-YEAR PLAN FOR CLIMATE ACTION
MAINE CLIMATE COUNCIL

50 energy-related bills signed into law this session!

Agency Matters

Energy Procurement

Electricity & Transmission

Natural Gas

Geothermal

Rate Making

Utility Operations

Electric Vehicles

Solar & Distributed Energy

Hydroelectric

Consumer Protections

Project Siting

Energy Efficiency

Heating

Energy Storage

A Few Big Picture Policy Changes

Establishing the Department of Energy Resources (LD 1270)	Updating Maine's RPS and establishing a Clean Energy Standard (LD 1868)	New requirement that OPA take positions consistent with state GHG emission reduction obligations (LD 836)	Modification to state's net energy billing policies (LD 1777)	Changes to stranded cost allocation (LD 1792)
• Cabinet-level department to serve as state energy office • Lead state energy planning and policy coordination • Authority and responsibility to conduct competitive energy procurements on a regular cadence	• Increases Maine's RPS to 90% by 2040 • Adds complimentary 10% clean energy standard (CES) by 2040 • Broader eligibility includes nuclear, large hydro, other resources that meet DEP-establish emissions standard • Clarifies PUC authority to enter regional procurements for clean resources	• Requires OPA, when taking a position on any matter pursuant to their authority, to ensure their position is consistent with cost-effective implementation for the state's greenhouse gas emission reduction obligations • Creates consistency between requirements of MDER, PUC, and OPA in considering GHG reduction law	• Modifies the compensation rates of existing, operational solar projects, including tariff and kWh credit projects to reduce the costs of the NEB program • Ends NEB going forward except for rooftop solar • Directs GEO to design a successor program for front-of-the meter DERs	• Directs the PUC, through legislation, to establish a new method of stranded cost allocation • Requires rates to be allocated on a statewide basis, rather than by utility

New Directives & Activities *(not comprehensive)*

Strategic Planning

- Future of Electric Transmission (LD 197)
- Maine Energy Plan & Procurement Schedule (LD 1270)

Program Design & Policy Tool Development

- FTM Solar Successor Program (LD 1777)
- Home Energy Navigator & Coaching Pilot (LD 1967)
- Accessible Permitting Database (LD 1850)
- Assisted Project Labor Factsheet (LD 1748)

Policy Evaluation

- Renewable Tax Policy (LD 1355)
- Differing Methods for Procuring Standard-Offer Service (LD 568)
- Non-Wires Alternative Assessment (LD 1726)
- Flexible Interconnection Evaluation & Report (LD 1726)

Technology Review & Analysis

- Geothermal Power Plants & Hydro/Pumped Hydro (LD 300)
- Geothermal Networks (LD 1619)
- Modern Wood Heat (LD 1212)
- Evaluate Energy Storage Goals (LD 1130)

Proceedings & Rulemaking

- Clean Energy Standard (LD 1868)
- TOU Rates for Standard-Offer Service (LD 186)
- Rule for MDER Procurement Evaluation (LD 1270)

Resource Procurements

- Contaminated Lands/RPS Backfill [3210-J]
- Existing Resource Procurement [3210-K]
- (LD 597)

Strategy C:
Transition to Clean Energy

Progress & Updates

Decrease energy burdens while transitioning to clean energy.

Actions:

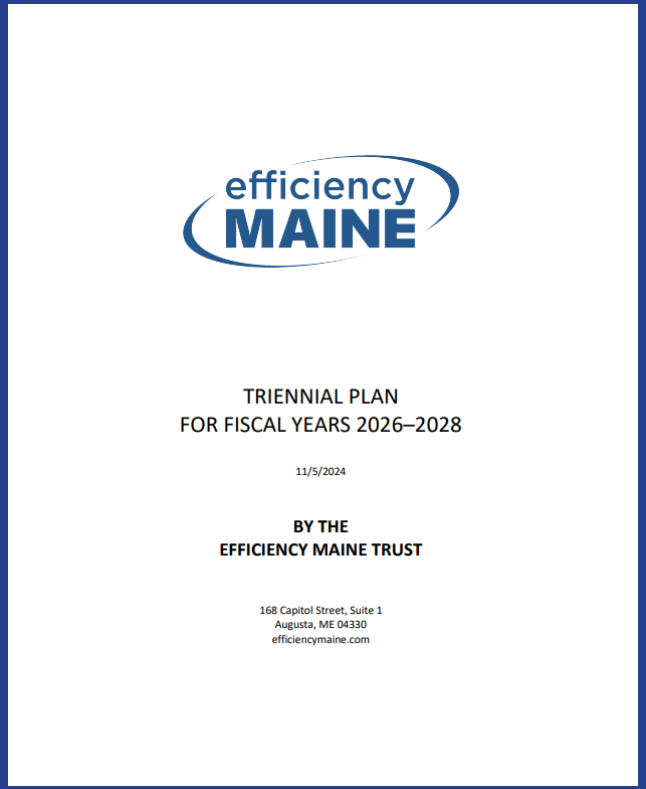
- **Better understand energy burden** across all energy costs
- **Reduce capital and financial barriers** through expanded financing options and ownership models
- Launch an **energy navigator** program
- Ensure adequate funding for **energy assistance programs**

Progress & Updates

- **Study quantifying household energy burden in Maine published by the Electric Ratepayer Advisory Council**
  - Home energy burden (excluding transportation costs) for low-income households is 14%, more than double the 6% affordability threshold
  - Statewide, Maine households are spending an average of $7,875 on transportation energy, electricity, and household fuels (fuel oil, natural gas, propane, wood, etc.)
- **L.D. 1270 adds "addressing energy burden" to the Maine Department of Energy Resource's primary departmental responsibilities**
- **L.D. 1967 directs GEO and GOPIF, in consultation with EMT, MaineHousing, and MOCA to design a Maine Home Energy Navigator and Coaching Program pilot**
- **Legislation to appropriate $7.5 M to LIAP advanced through legislature, but has been "carried on the appropriations table"**

Progress & Updates

- **Maine's Solar for All Program continues to move ahead**
  - Maine's $62 M grant award from the U.S. EPA will provide financial and technical assistance enabling low-income and disadvantaged households across the state to access solar and energy storage. This award will also support workforce development opportunities ensuring quality clean energy jobs.
- **Efficiency Maine Trust's Triennial Plan VI Approved**
  - TP VI is EMT's roadmap for the next three years, continuing the core programs that Maine homeowners and businesses have become familiar with as a pathway to lowering their annual energy bills. With its suite of consumer information, technical support, financial incentives, and links to contractors, the plan forecasts that its programs will result in 38,000 homes heated entirely with heat pumps (including 6,500 low-income homes); 9,900 homes weatherized, and 137 megawatts of summer peak grid-load reductions by 2028.


efficiency MAINE

TRIENNIAL PLAN
FOR FISCAL YEARS 2026–2028

11/5/2024

BY THE
EFFICIENCY MAINE TRUST

168 Capitol Street, Suite 1
Augusta, ME 04330
efficiencymaine.com

Plan and build the infrastructure needed to achieve 100% clean electricity by 2040.

Actions:

- Establish a **regular cadence of clean energy procurements** at least every two years
- Maximize use of **federal funds**
- **Develop community-informed resources** to assist Maine towns in supporting clean energy
- **Improve state policies** for permitting, siting and procurement of clean energy and transmission projects
- **Plan for future grid needs** in transmission and distribution
- Improve and **modernize the process of connecting** clean energy **projects to the grid**
- Invest in a sustainable, Maine-based **offshore wind industry**

Progress & Updates

- **L.D. 1270 directs the Department of Energy Resources to conduct procurements every 2 years**
- **GEO working with retained consultants to draft a solar and battery energy storage handbook for Maine municipalities. This narrative handbook will include FAQs, best practices, and model ordinance language to support the responsible development of clean energy in Maine**
- **ISO-NE, NESCOE, and New England region states launched Long Term Transmission Planning (LTTP) RFP**
- **L.D. 197 directs GEO to coordinate with state agencies involved in the siting, permitting and regulation of electric transmission infrastructure and solicit information from a stakeholder group in conducting a study of Maine's future electric transmission needs**
  - First stakeholder meeting will be held July 29, 2025 from 9:00-10:30 AM. All welcome to attend. → **Register Here**

Progress & Updates

The University of Maine built a 1:4 scale prototype of a floating wind turbine in Searsport, Maine *UNIVERSITY OF MAINE*

Changing OSW Landscape

- Offshore wind remains an important part of Maine's long term energy plans.
- Given changing energy landscape, state is pausing advancement of OSW procurement.
- The State remains dedicated to advancing the research priorities of the Maine Offshore Wind Research Consortium, including maximizing research opportunities at UMaine's recently launched quarter-scale VolturnUS+ demonstration project currently moored off the coast of Castine

Manage the impact of buildings, vehicles, and industry on the grid with innovative demand management and load flexibility strategies.

Actions:

- **Adopt software and technologies that enable signals** based on electricity grid conditions to manage demand and supply
- **Help customers to participate** in demand management through policies, programs, markets, and regulatory mechanisms
- **Ensure equitable access** and **benefits** from demand management programs
- Provide **meaningful education and communication** around the opportunities and benefits of demand management

Progress to date

- **Utility grid plans due at the end of this year.**
- **L.D. 186 directs the PUC to investigate time-of-use rates in standard-offer service.**
- **L.D. 1726 directs the PUC to explore and evaluate the feasibility of adopting emerging flexible interconnection options in order to use distributed energy resources, increase grid capacity, decrease grid instability and reduce costs in achieving state goals related to clean energy, including energy storage and beneficial electrification.**
- **EMT Triennial Plan VI will support three discrete demand management programs:**
  - Demand Response Initiative: Participants are compensated for reducing their electricity usage when called upon to do so. This typically occurs during periods of peak demand that drive system costs.
  - Distributed Energy Resource (DER) Initiative: An initiative focused on using both passive and active load-shifting strategies across fleets of devices. The initiative incentivizes participants to modify the timing of their electricity consumption from the grid—shifting away from periods of peak demand to periods of lower demand—which reduces overall system costs for all ratepayers.
  - Large Battery Initiative: An initiative involving performance-based incentives for the installation and dispatch of batteries for demand-metered customers during summer peak demand conditions

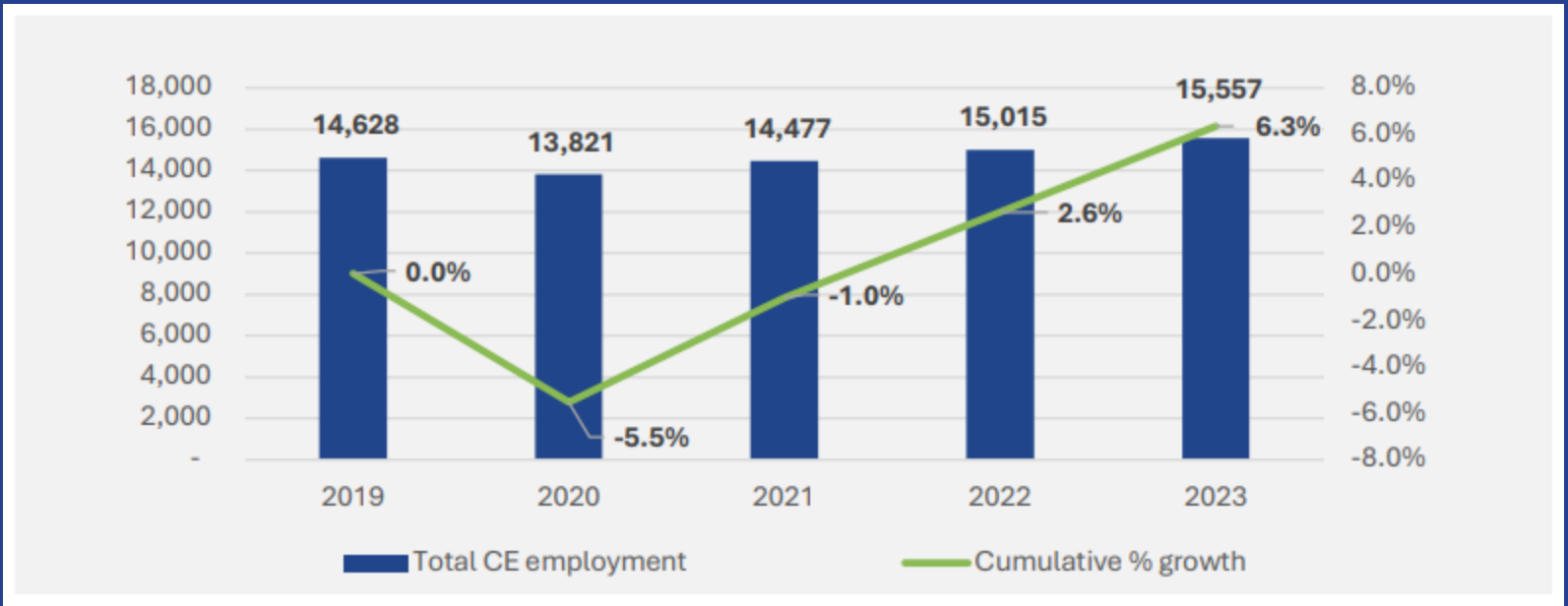
Grow Maine's clean energy economy with a goal to support 30,000 clean energy jobs by 2030.

Actions:

- Support ongoing **state workforce initiatives**
- Support **clean-tech innovation** programs and partnerships
- **Expand apprenticeships** and other earn-and-learn models
- Maintain an online **clean energy jobs and training database**
- Create tools, resources, trainings, and apprenticeship programs to **support disadvantaged students and job seekers**
- Identify **pathways into clean energy careers** for workers most impacted by climate change

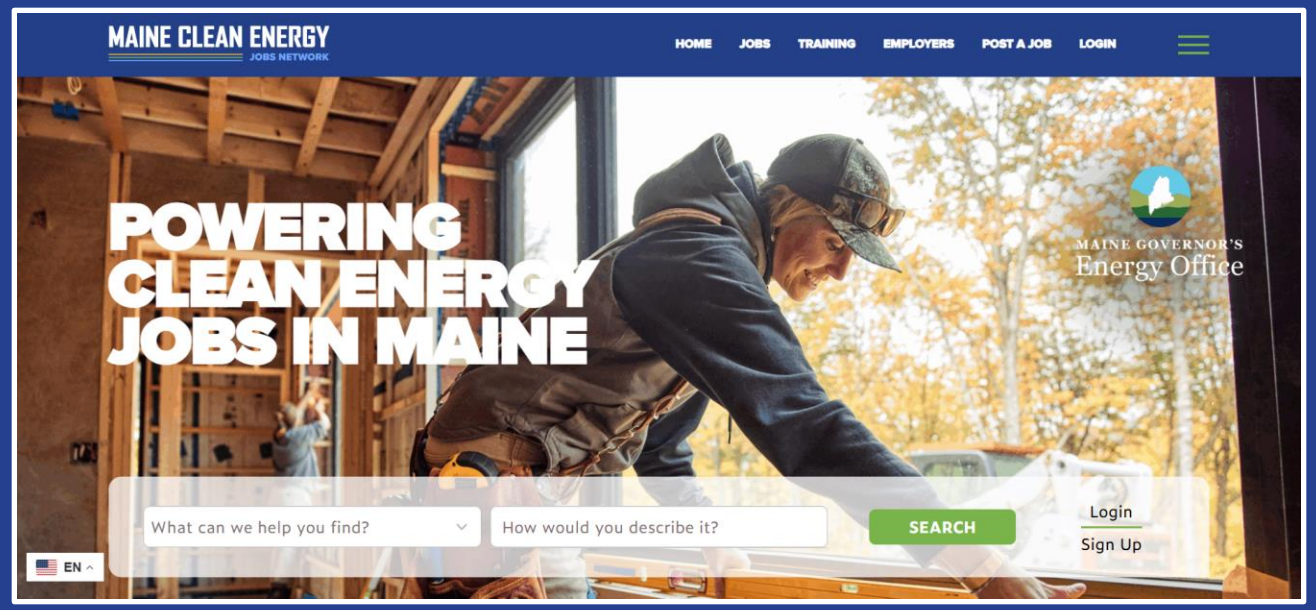
Progress to date

The clean energy sector is a high growth sector of Maine's economy, growing faster than the state's overall economy and faster than any other New England state's clean energy economy. There were close to 15,600 clean energy workers in the state of Maine in 2023, representing 2.4 percent of the entire state's workforce. Between 2022 and 2023, the clean energy economy added more than 500 jobs, and by the end of 2023, it represented 3.2 percent of Maine's total economic output, up from 2.7 percent in 2022. Not only is the clean energy economy growing, but it is outpacing Maine's overall economy; while employment in the overall economy grew by 1.7 percent from 2022 to 2023, the clean energy workforce grew by 3.6 percent. Within New England, Maine's clean energy workforce has grown the fastest since 2019.

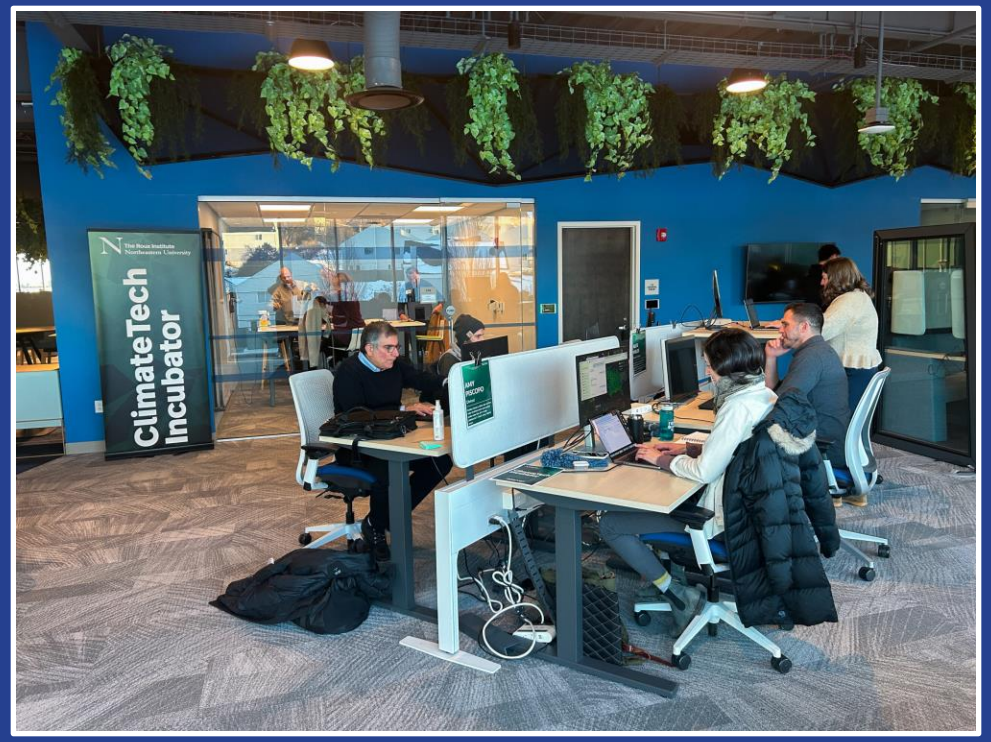


Data from the 2024 Maine Clean Energy Industry Report (March 2024)

Progress to date



mainecleanenergyjobs.com has seen more than 40,000 visitors to date, including employers, job seekers, those looking for training opportunities



The ClimateTech Incubator at Northeaster's Roux Institute today has 20+ member companies, has created 77+ jobs, and attracted $32 M in funding

Federal Updates

H.R.1 - One Big Beautiful Bill Act (OBBB)

Summary provided by the National Association of State Energy Officials (NASEO):

In broad terms, virtually all energy efficiency and renewable energy tax incentives, as well as electric vehicle tax incentives, are eliminated and will be phased out rapidly.

Tax incentives for nuclear power, geothermal power, and hydropower continue but will be impacted by a complex set of Foreign Entities of Concern restrictions. Specific tax incentive phase-out and modifications include:

Early termination of the clean vehicle tax credits (including credits under sections 25E, 30D, 45W, and 30C), with all credits expiring after September 30, 2025, except for 30C, the Alternative Fuel Vehicle Refueling Property Credit, which expires for property placed in service after June 30, 2026.

Rapid phase-out of energy efficiency credits (25C, 25D, 45L, 179D), which will now end for property placed in service after December 31, 2025 (for 25C and 25D) or June 30, 2026 (for 45L and 179D).
Rapid phase-out of the Production Tax Credit (PTC) and Investment Tax Credit (ITC) for wind and solar (sections 45Y, 48E).

H.R.1 - One Big Beautiful Bill Act (OBBB)

Summary provided by the National Association of State Energy Officials (NASEO):

Both the 45Y Clean Electricity Production Tax Credit and the 48E Clean Electricity Investment Tax Credit will be eliminated for wind and solar facilities that begin construction 12 months after enactment, if placed in service after Dec. 31, 2027.

- July 7, 2025 Executive Order: ENDING MARKET DISTORTING SUBSIDIES FOR UNRELIABLE, FOREIGN CONTROLLED ENERGY SOURCES

Continued tax incentives for certain baseload power, such as nuclear, hydropower, and geothermal, for facilities that begin construction before 2033.

Continuation of most clean fuel production tax credits through 2029 with modifications to sustainable aviation fuel credits.

Inclusion of metallurgical coal for the advanced manufacturing production credit (45X) through 2029.
Termination of the 45X credit for wind energy components produced and sold after December 31, 2029.

Expansion of the carbon capture and storage credit (45Q) which is increased for CO2 captured and used for carbon reuse or enhanced oil recovery to $85 a ton and $180 a ton (respectively) from $50 and $130 a ton. Full transferability of the credit is reinstated.

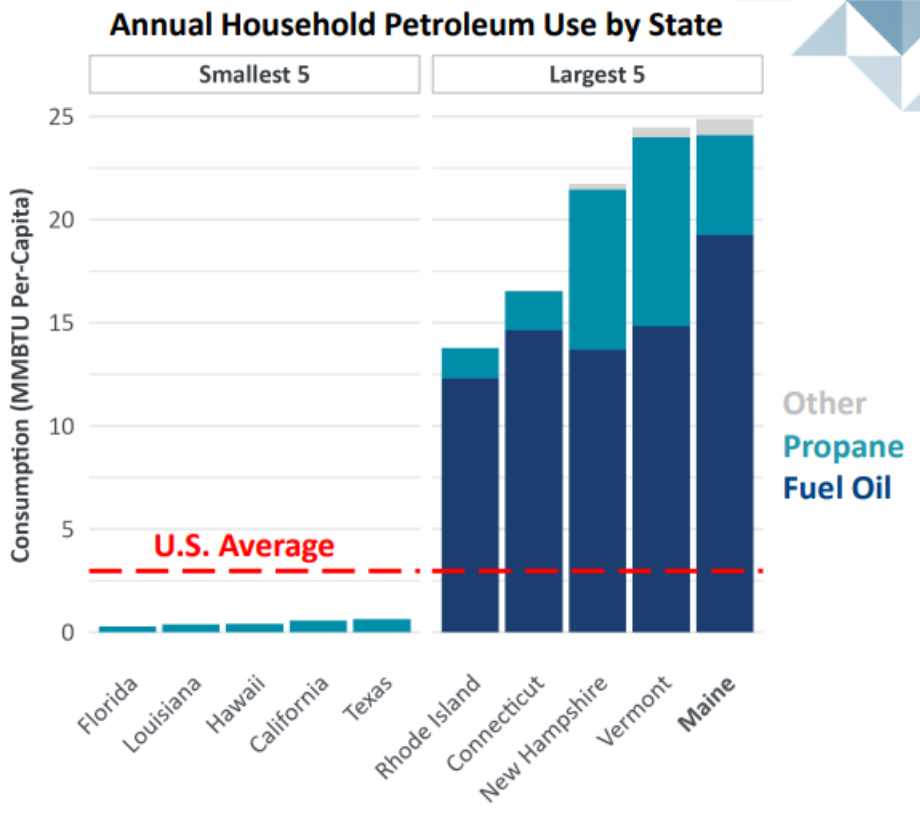
Energy Impacts of Potential Canadian Tariffs

A recent study on the potential impact of energy tariffs commissioned by GEO and undertaken by The Brattle Group found that Maine people spend an estimated 60 percent more on household space and water heating than the average American, and energy imports represent more than half of Maine's total energy consumption.

Understanding the Impact of Energy Tariffs in Maine, published June 2025

Household Petroleum Use

- Maine has the **highest per-capita household petroleum use in the United States,** consuming about **8 times the U.S. average**[1]
- Burning fuel oil and propane for heating is **considerably more expensive** than heat pumps or other sources[2]
  - Customers in Maine spend an estimated **60% more the U.S. average** on household space and water heating[3]
  - This reliance on fossil fuels also exposes Maine customers to volatility in global fuel prices, compounding energy insecurity

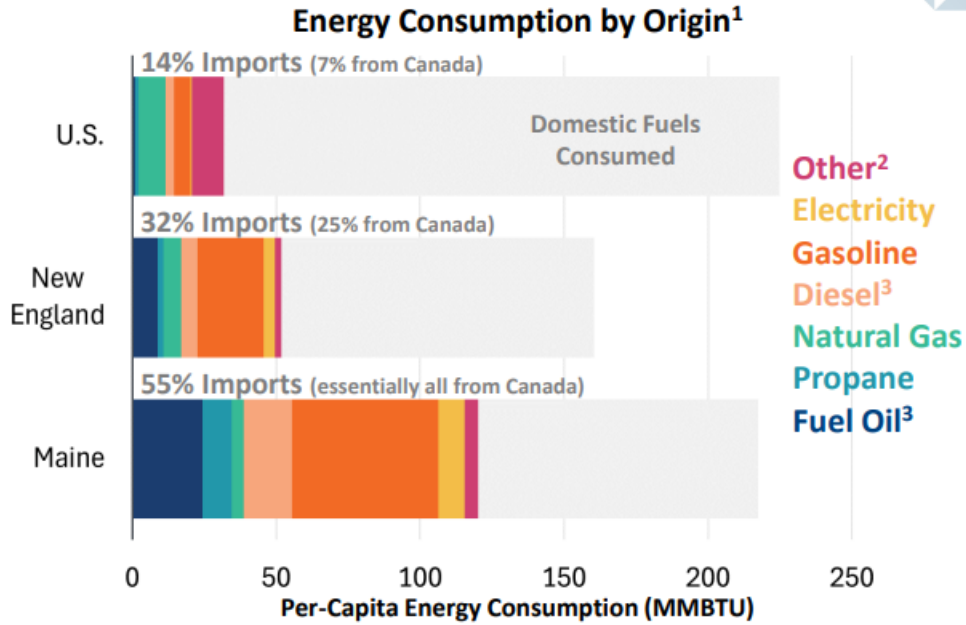


1. EIA SEDS. Latest available data from 2022.
2. EIA SEDS. Customers in Maine spend $30-35/MMBTU for fuel and propane. Across the U.S., the average retail price for natural gas is just $15/MMBTU. Electricity is more expensive, but the efficiency benefits of a heat pump mean customers need to buy far less of it to receive the same amount of heat delivered.
3. EIA RECS

International Energy Imports in Maine

Maine imports *4 times* the energy per-capita as the U.S. on average

- Energy imports represent **55%** of Maine's energy consumption
  - **90% of Maine's total petroleum products are imported from Canada**
- Essentially all of these imports come from Canada, via port and rail
- Due to constraints on domestic shipping, trucking, and rail capacity, it would be **very difficult for Maine to replace these imports with fuels from domestic sources**



Imports data for petroleum products from Maine GEO.
Natural gas and electricity imports, as well as total consumption, estimated based on data from EIA SEDS and Canadian Energy Regulator.

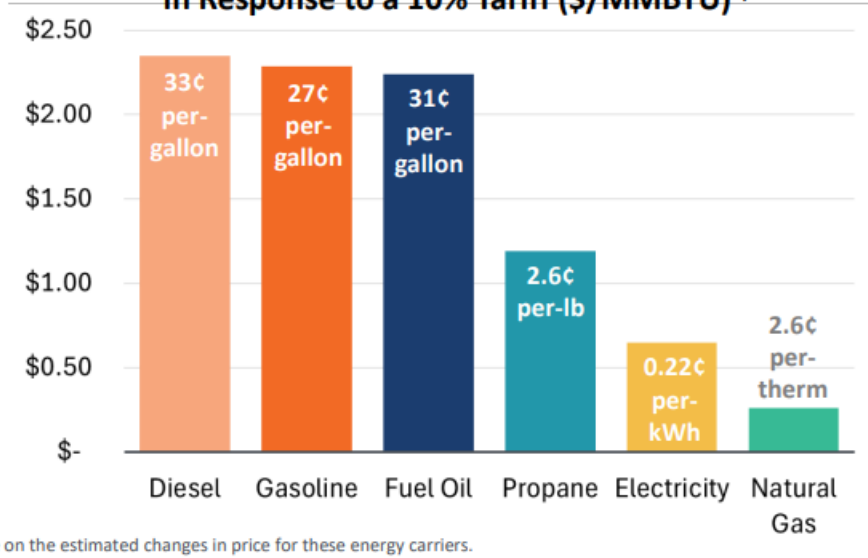
Notes:
1. Using exports data from Maine GEO, 6% of Maine's propane, fuel oil, and "other" imports and 12% of Maine's gasoline imports are estimated to be pass-through to other states in New England.
2. The "Other" fuels category predominantly includes asphalt and road oil, jet fuel, propylene, isobutane, crude oil, and lubricants.
3. Import data for diesel and fuel oil is combined as "distillate fuel oils" (DFO). We assume that the fractions of DFO going to diesel and fuel oil respectively are proportional to the volumetric consumption of each in Maine.

Price Impacts

Brattle analyzed energy prices, import quantities, and the composition of retail rates to estimate the impact a tariff would have on prices

- A 10% tariff on energy imports would increase the price of **fuel oil, diesel, and gasoline** to households by **$2 to $2.50 per-MMBTU (27¢ to 33¢ per-gallon)**
  - It is very difficult to substitute domestic fuels due to the magnitude of imports and constraints on domestic shipping, so a tariff will have a direct and largely unmitigated impact on petroleum prices in Maine
- **Electricity and natural gas** would experience smaller price impacts of **$0.10 to $0.30 per-MMBTU**[1]
  - These energy sources are less reliant on imports than petroleum
  - The tariff only applies to the energy commodity, which accounts for a smaller share of retail electricity and natural gas prices; transmission and distribution expenses (which are not affected in the short-run by a tariff) make up the remainder

Estimated Change in Residential Retail Price in Response to a 10% Tariff ($/MMBTU)[3,4]



1. Due to limitations on data availability on price setting fuels for electricity and natural gas, there is less confidence on the estimated changes in price for these energy carriers. However, because they represent a relatively small share of overall energy expenses, this uncertainty does not materially change the results.
2. In the long run, tariffs on products used to build generation, transmission, and distribution infrastructure will impact retail rates. This is discussed later in the deck.
3. Propane has a smaller ratio of wholesale to retail prices than other delivered fuels, indicating greater overhead and distribution costs.
4. We do not estimate a change in price for wood products, which are largely domestically produced.

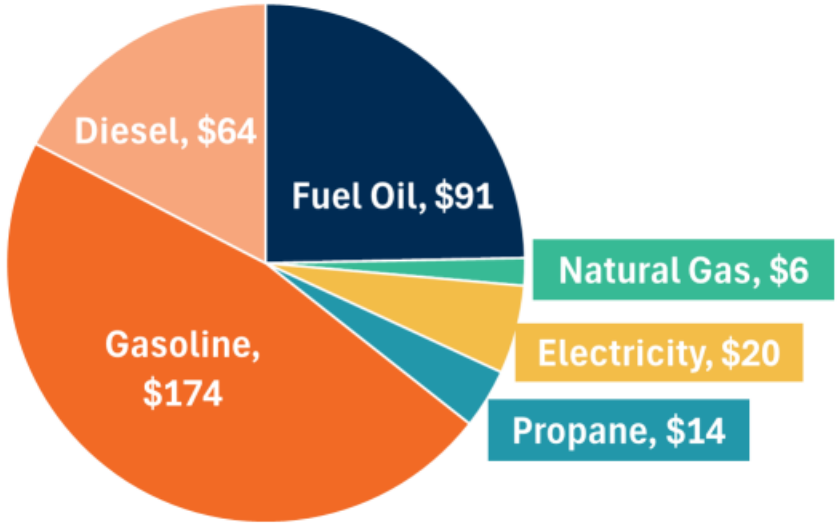
See table in appendix for detailed assumptions.

Results

- A 10% tariff would result in an **$370 million annual increase in energy costs** for Maine customers[1]
  - Most of the increase in expenditures will be incurred during the winter season
  - A 25% tariff would result in up to a $925 million annual increase in energy costs
- About two-thirds of the cost will be borne directly by households through greater electricity bills and retail fuel prices **($419 per-household)**
- The remaining third will be borne by businesses
  - Much of this will pass through to Maine customers through higher prices for goods and services
  - Will also make Maine manufacturers less competitive due to higher costs

Total Change in Energy Expenses (Million $) [2]

10% Tariff on Energy Imports



1. We assume the price increase does not cause customers to reduce consumption, which could mitigate cost. This is a reasonable simplifying assumption as own-price elasticities for energy commodities are small, especially in the short-term (see Appendix). Some customers may reduce energy consumption in response to higher prices, thus bearing the cost of tariffs through reduced services and related quality of life impacts.
2. We do not estimate the change in price for "other" energy products outside of these categories. Consequently, these estimates may be conservative.

EWG Member Feedback

Next Meeting:

Monday, October 20 at 11:00 AM