



GOVERNOR'S Energy Office

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Buildings and Energy Efficiency Analyst





Maine's Climate and Clean Energy Targets:

REDUCE
GREENHOUSE
GAS EMISSIONS

45%

BELOW 1990 LEVELS
BY 2030

80%

BELOW 1990 LEVELS
BY 2050

TRANSITION TO
CLEAN ENERGY

80%

BY 2030

100%

BY 2040

ACHIEVE CARBON
NEUTRALITY

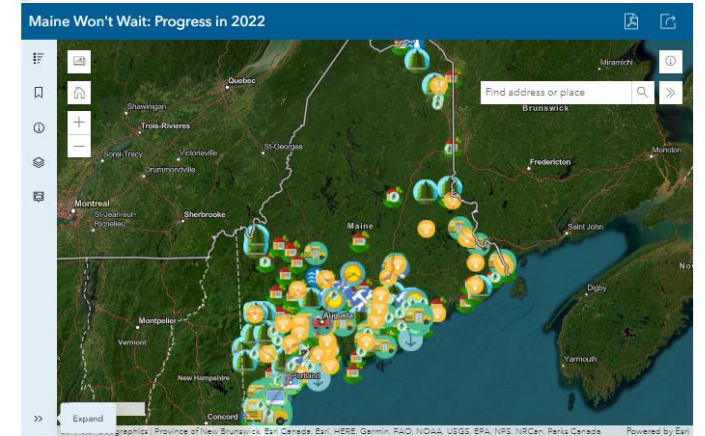
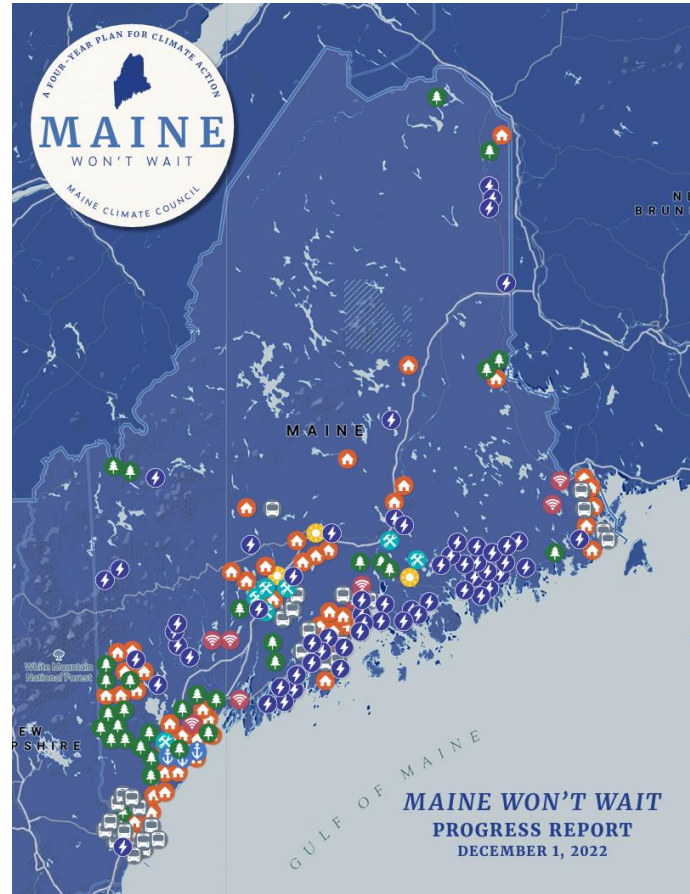
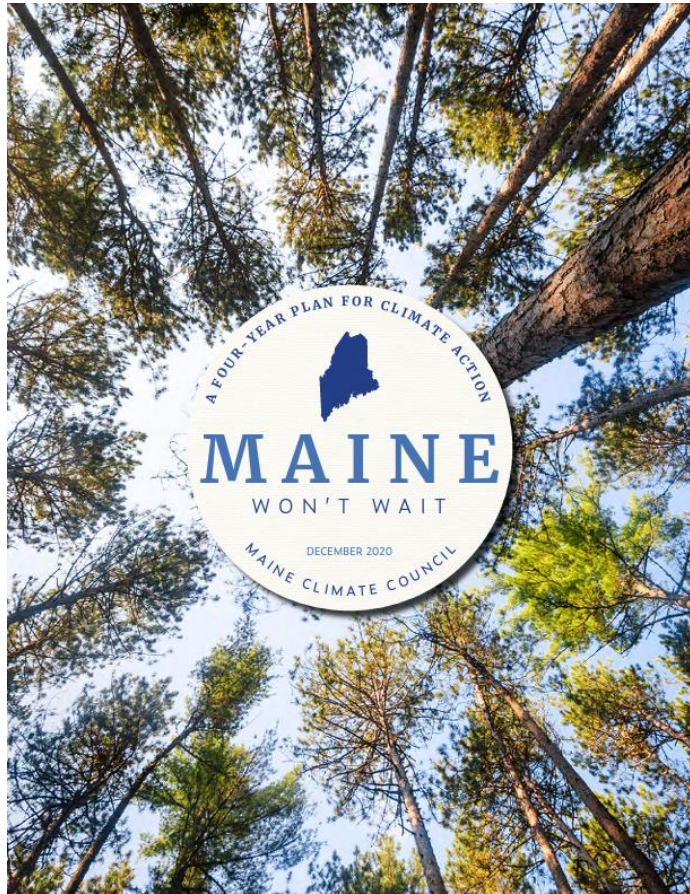
2045

CREATE CLEAN
ENERGY JOBS

30,000

BY 2030

Maine Won't Wait: Progress



Tracking the Progress of Maine Won't Wait

This dashboard tracks numerical targets included in Maine Won't Wait to inform the public and help evaluate whether evidence-based adjustments, enhancements or replacements to policies are needed in pursuit of the plan's climate objectives. Over time, the dashboard will expand to include other key Maine Won't Wait metrics as updated data becomes available, new programs are established, and state and federal climate investments are realized.

The dashboard will be updated regularly. Click each category to explore even more data about Maine's climate progress.



49%



21%



12%



12%



5%

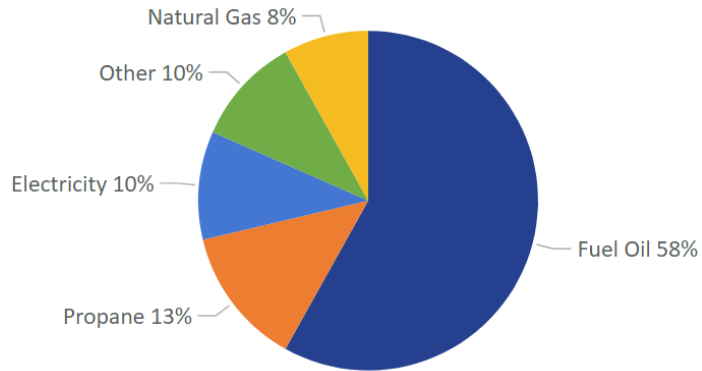
TRANSPORTATION • RESIDENTIAL • COMMERCIAL • INDUSTRIAL • ELECTRIC POWER

Data source: Maine Department of Environmental Protection 9th Biennial Greenhouse Gas Emissions Report

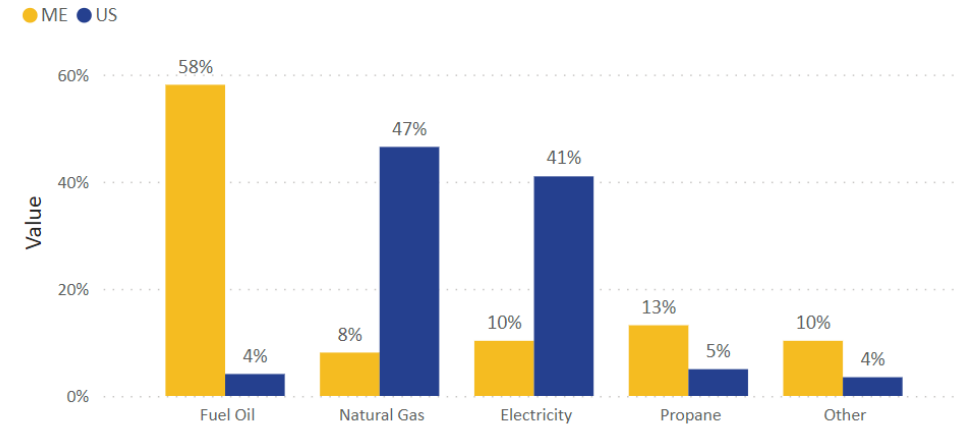
MaineWontWait.org

Maine, New England & U.S. Home Heating Data

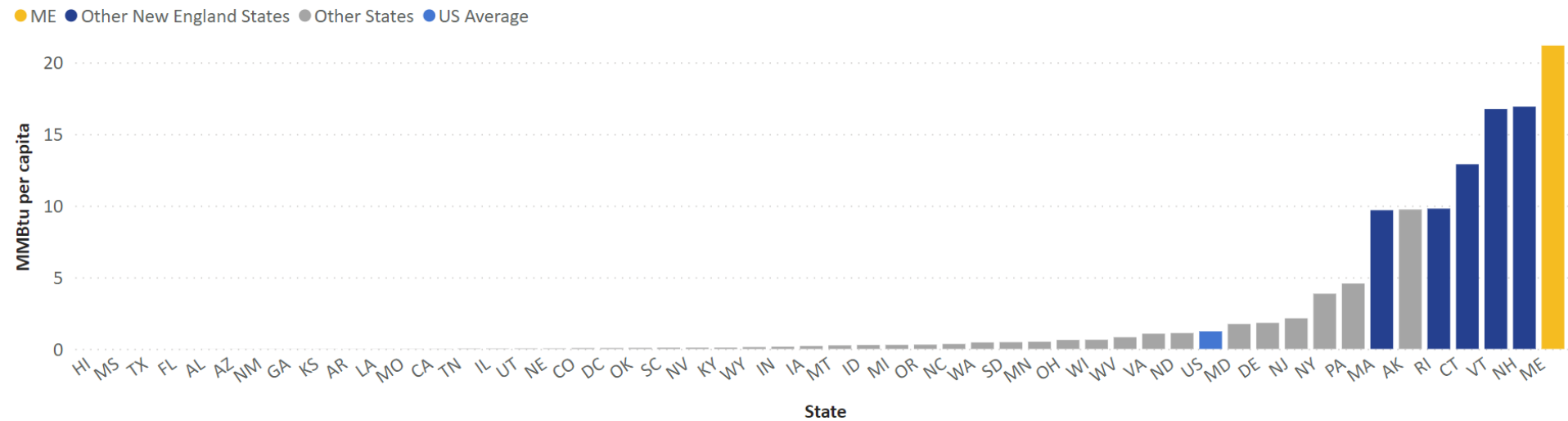
Share of Energy Sources Consumed for Residential Heating, Maine (2021)



Share of Energy Sources Consumed for Residential Heating (2021)



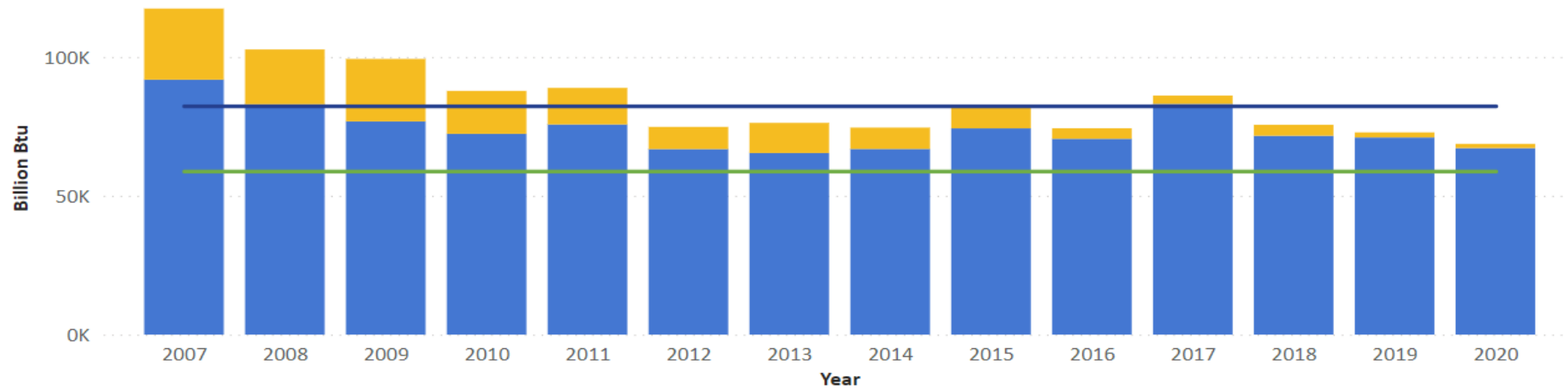
Distillate fuel oil consumed by the residential sector (2020)



Maine Fuel Oil Consumption, 2030 and 2050 Goals

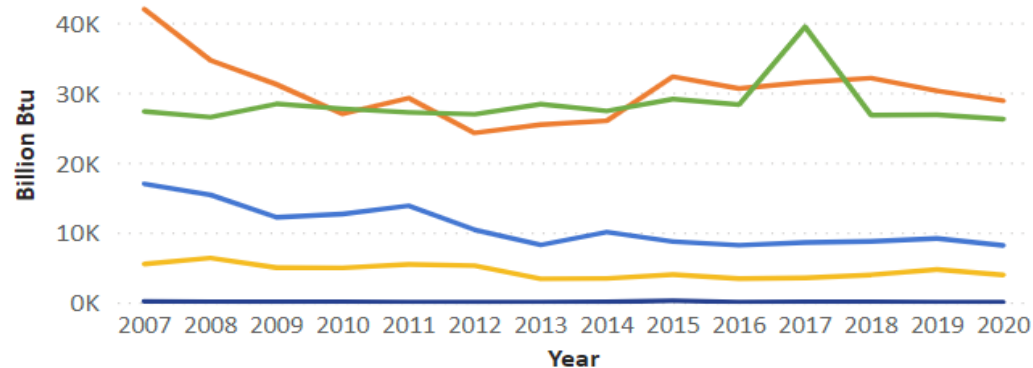
Fuel oil total consumption with 2030 and 2050 goals, Maine

● Distillate Fuel Oil ● Residual Fuel Oil ● 2030 Oil Consumption Goal ● 2050 Oil Consumption Goal



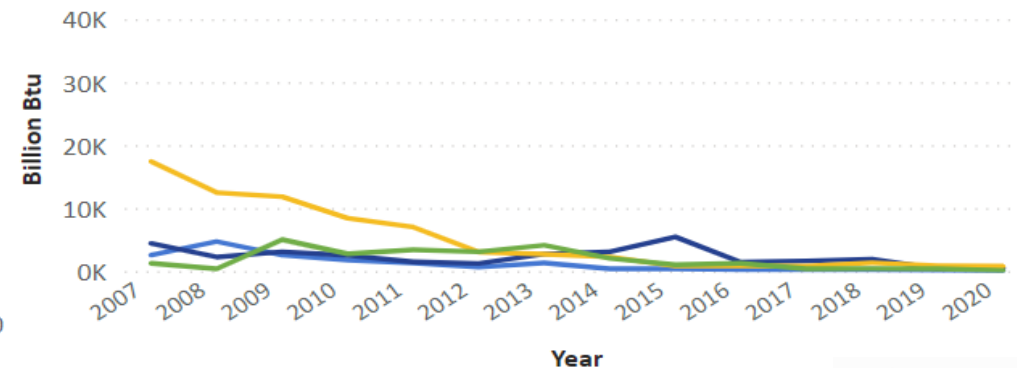
Distillate fuel oil consumed by sector, Maine

● Commercial ● Electric Power ● Industrial ● Residential ● Transportation



Residual fuel oil consumed by sector, Maine

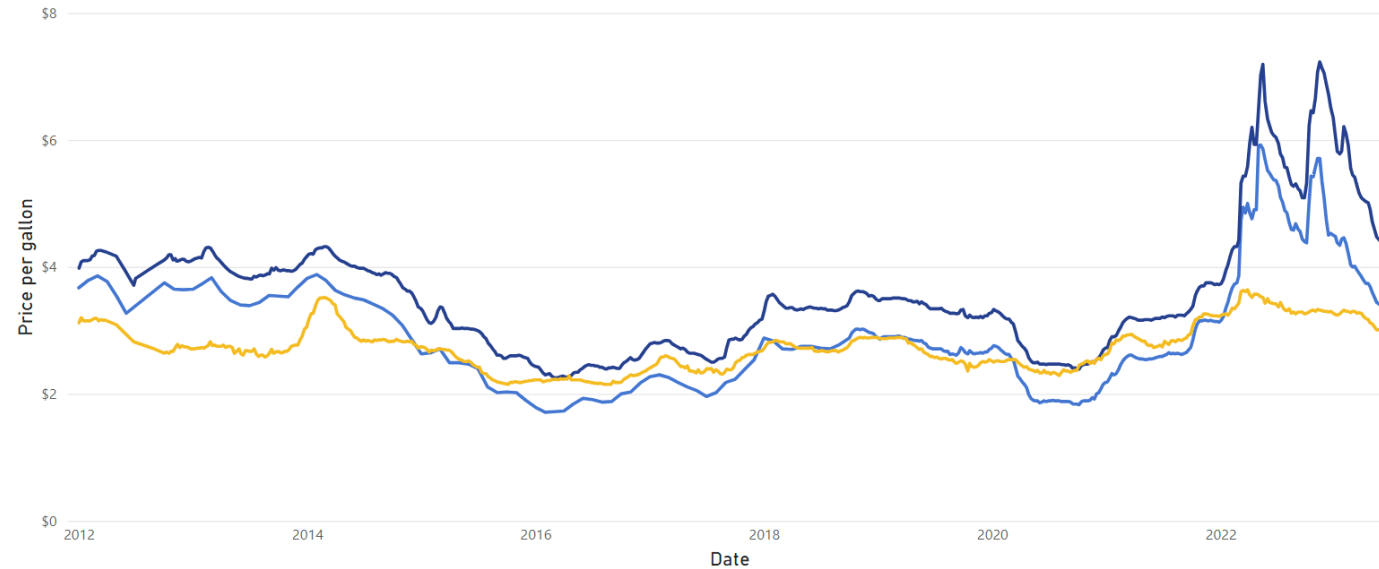
● Commercial ● Electric Power ● Industrial ● Transportation



Winter Heating

Maine Delivered Fuel Prices (2012-2023)

Delivered Fuel ● Heating Oil ● Kerosene ● Propane



Fuel Heating Oil Kerosene Propane

Date 1/1/2012 5/30/2023

2022-2023 Winter Heating Season Tips and Resources

Energy prices are expected to remain high this winter due to continued world market volatility from the Russian invasion of Ukraine. This guide contains resources for Maine people to help stay warm this winter and find heating assistance if needed.

- Track Prices**
The Governor's Energy Office tracks heating fuel prices weekly and compares costs of heating sources to help you make informed energy decisions.
[TRACK PRICES](#)
- Energy Efficiency**
Weatherizing your home can help you stay comfortable and save money this winter. Learn more about incentives and get energy saving tips from [Efficiency Maine](#) and [MaineHousing](#).
- Tune Up**
Schedule your annual heating system maintenance as soon as possible to ensure it is operating most efficiently. Schedule a chimney cleaning for wood and oil burning systems to ensure safe operation during winter. Stay comfortable and save money by keeping your heat pump tuned up. Learn more from [Efficiency Maine](#)
- Heat Pumps**
Electric heat pumps are the most cost-efficient heating source available and are proven to work in cold weather. Multiple incentive programs exist to reduce the cost of installing a heat pump for low-and-moderate-income Maine households. Learn more from [Efficiency Maine](#) and [MaineHousing](#).

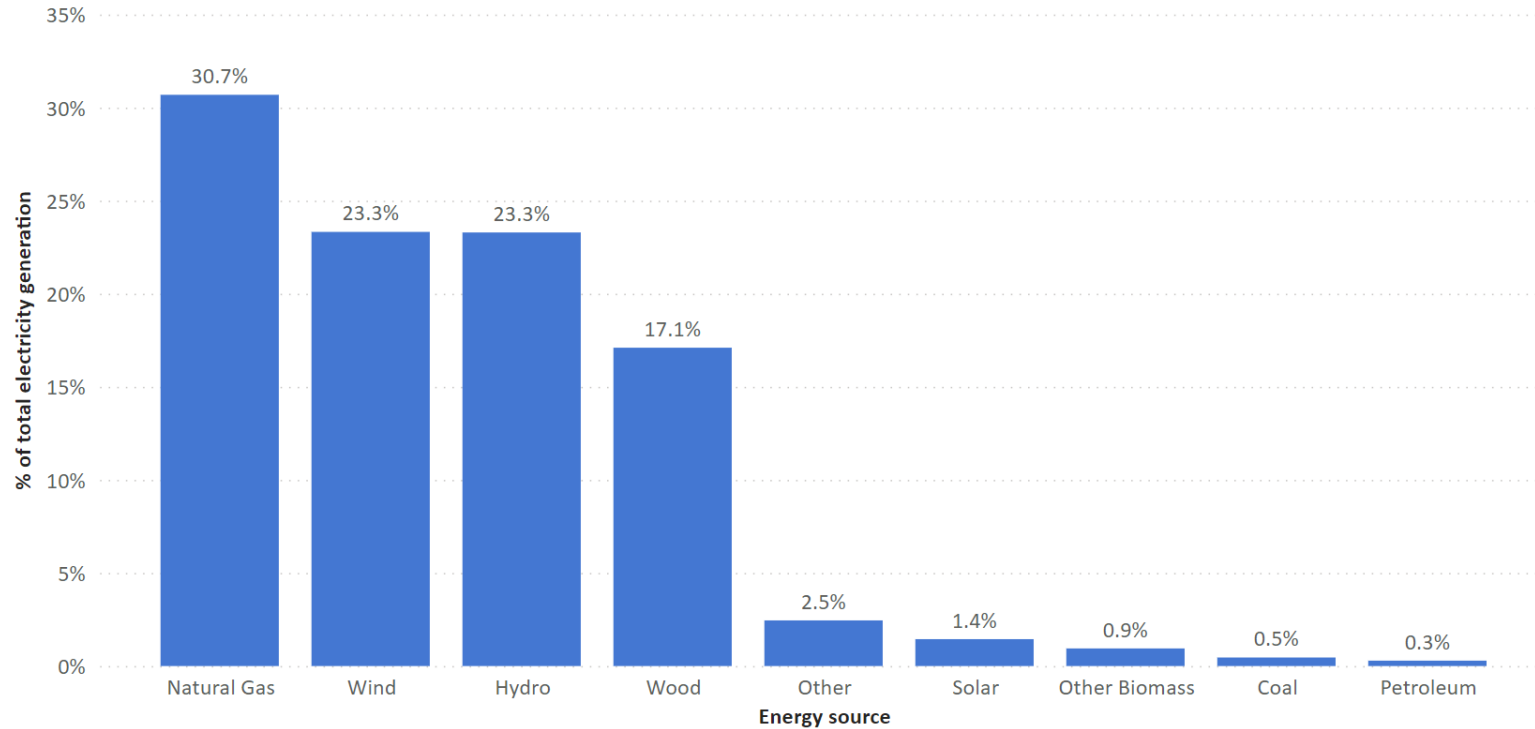
maine.gov/energy

Maine Winter Heating Tips and Resources

www.maine.gov/energy/winter-heating-resources

Electric Grid: Maine

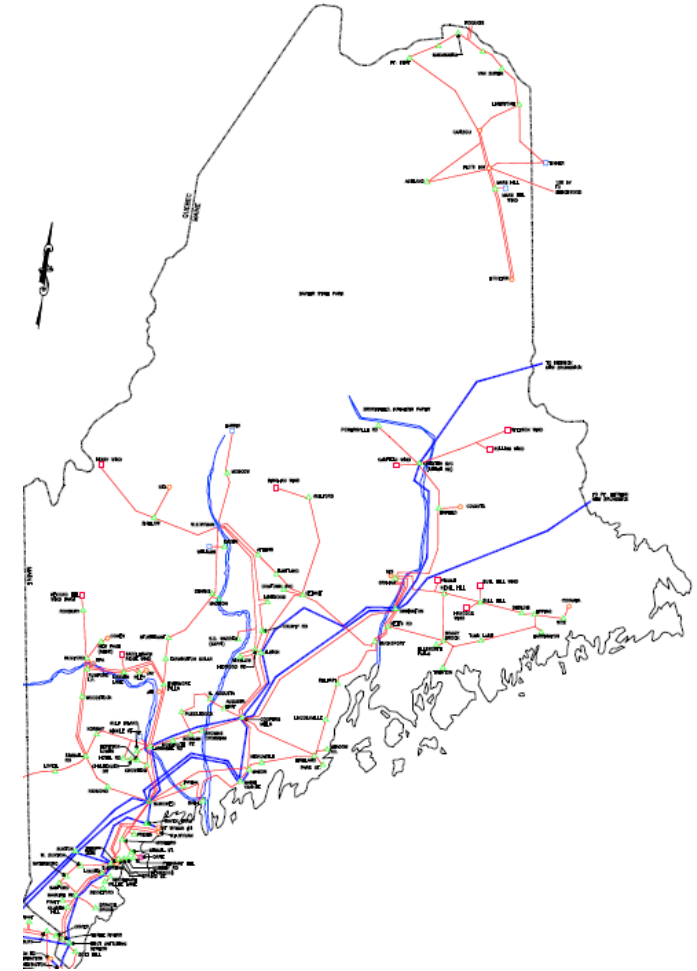
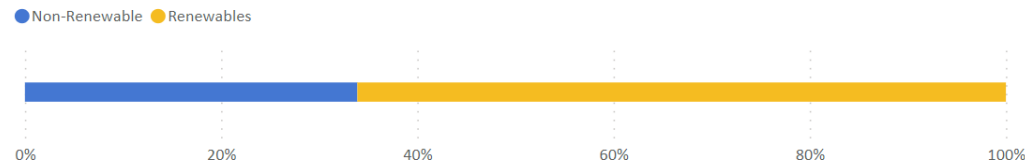
Electricity generation by energy source, Maine (2021)



Total electricity generation, Maine (2021)

10,908,149
MWh

Renewable electricity generation mix, Maine (2021)



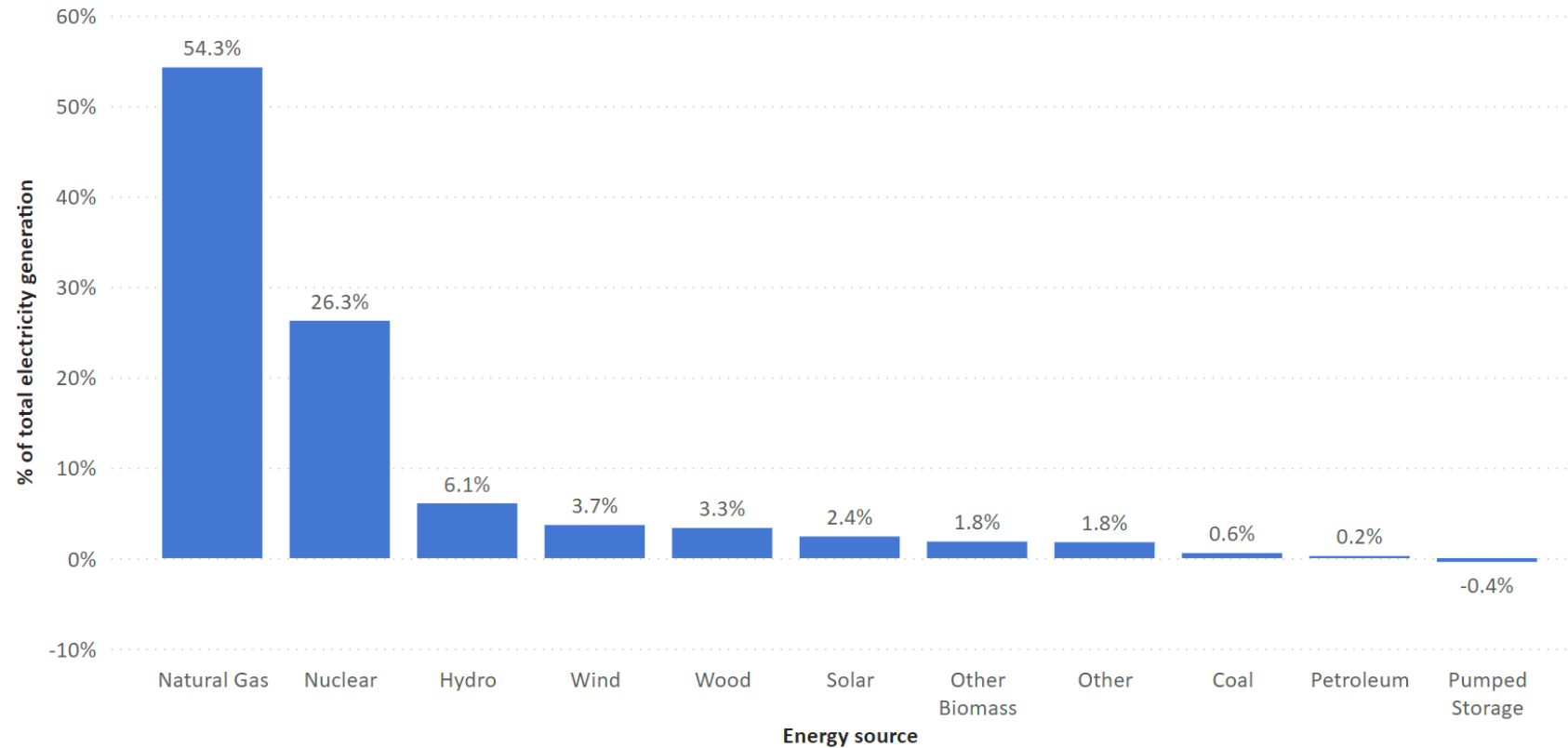
ISO New England, New England Geographic Transmission Map through 2032



GOVERNOR'S
Energy Office

Electric Grid: New England

Electricity generation by energy source, New England (2021)



Total electricity generation, New England (2021)

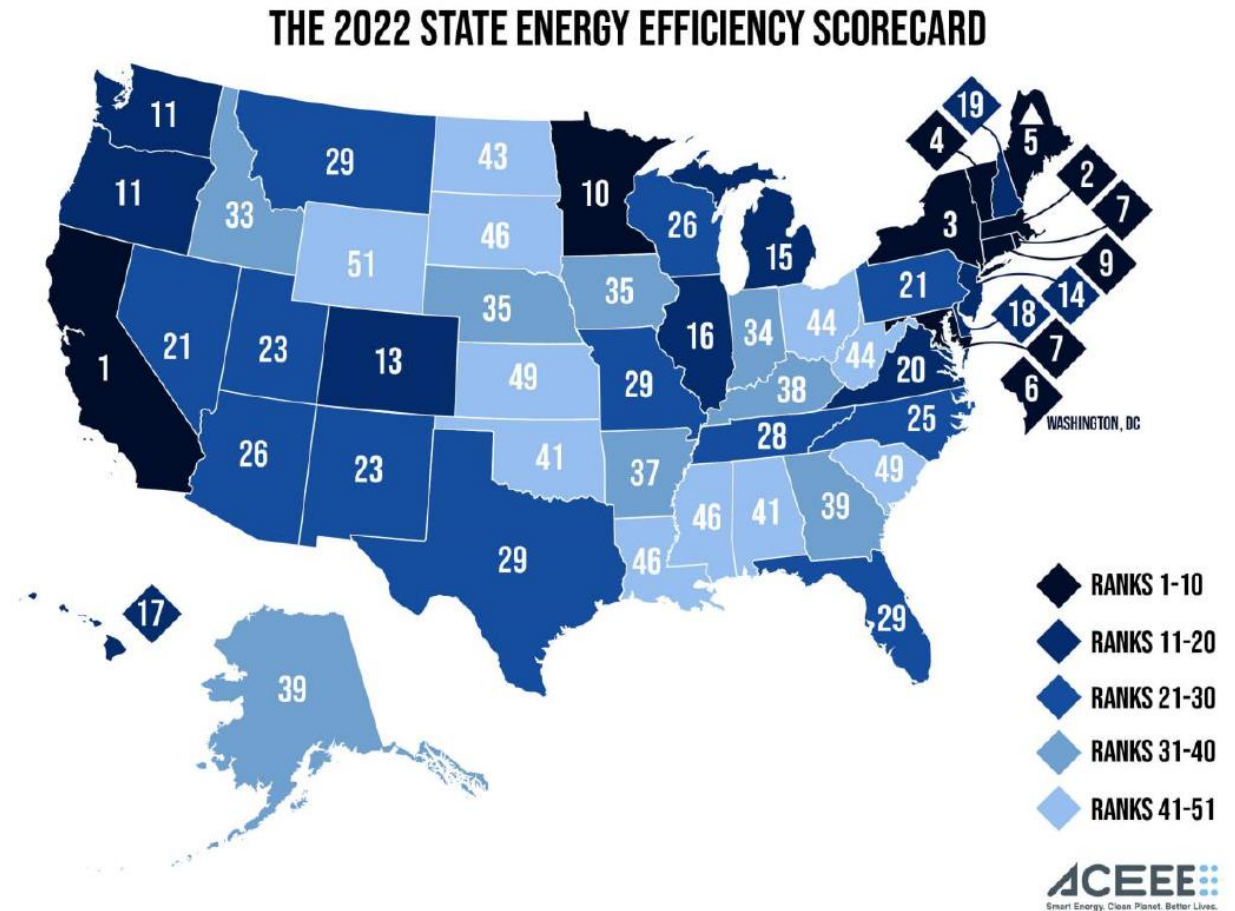
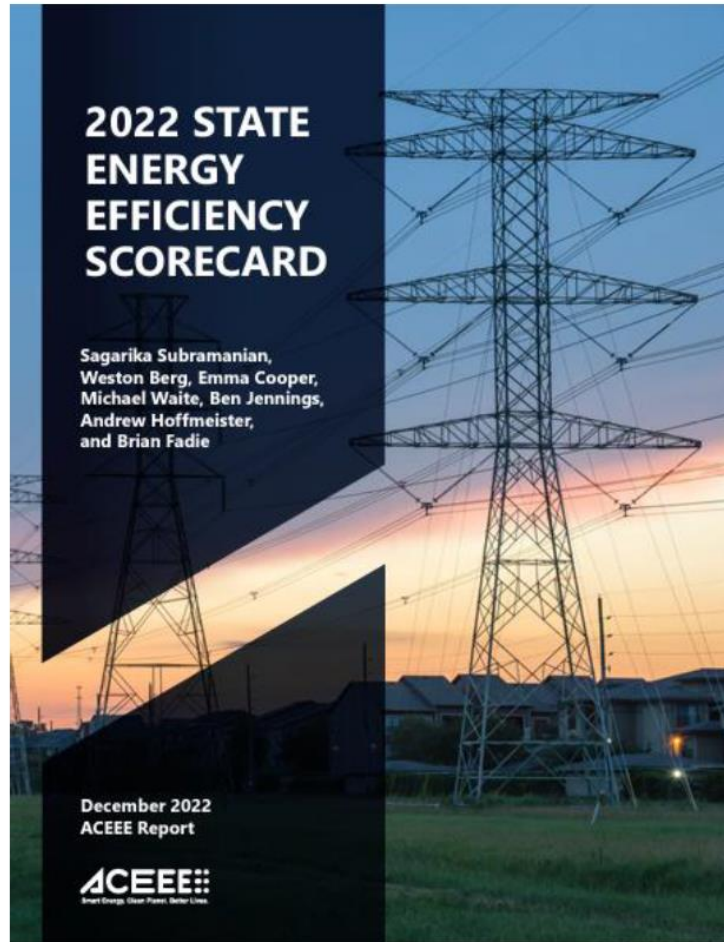
103,089,045
MWh

Renewable electricity generation mix, New England (2021)



Energy Efficiency: Policy and Programs

Maine ranks 5th in the country and most improved state on state energy efficiency policies



Energy Efficiency: Weatherization

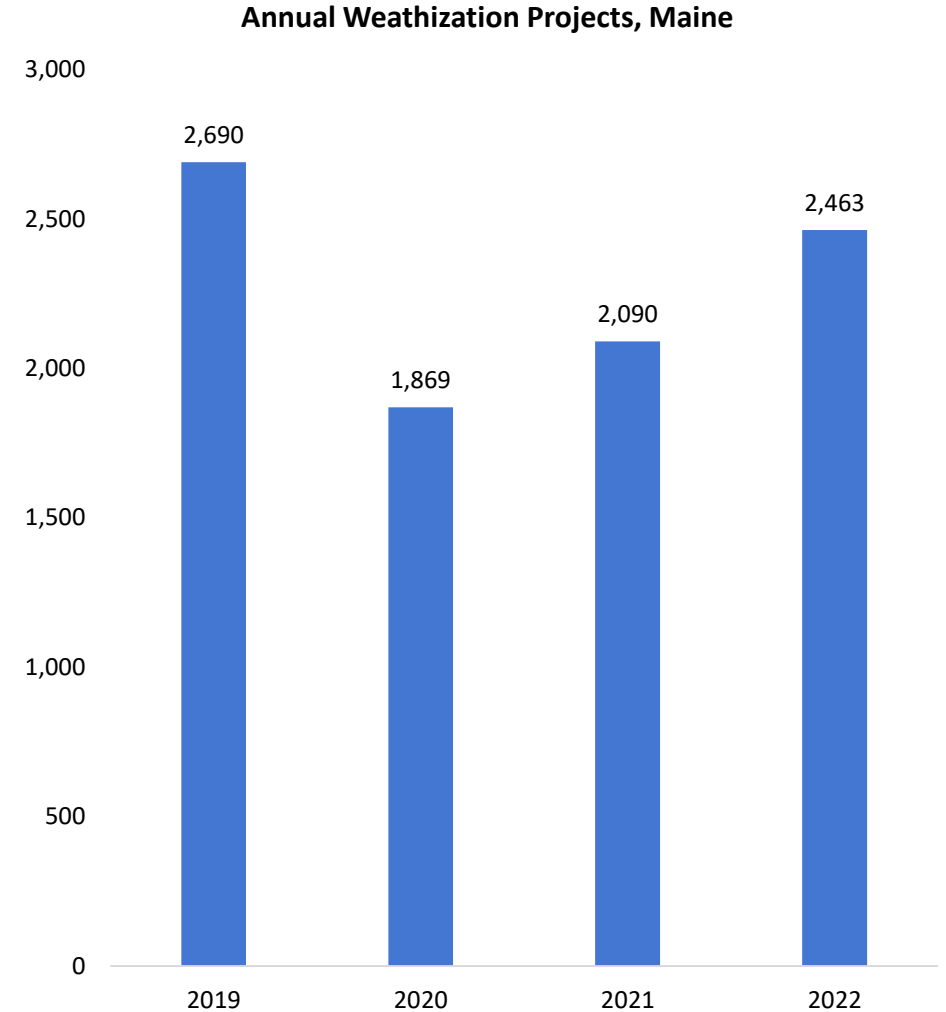
Weatherization projects are approaching pre-pandemic levels

Legislative and climate goals

- Double the pace of home weatherization, including increasing low-income residential units per year
- Weatherized over 9,000 dwellings since 2019

Additional funding from MJRP

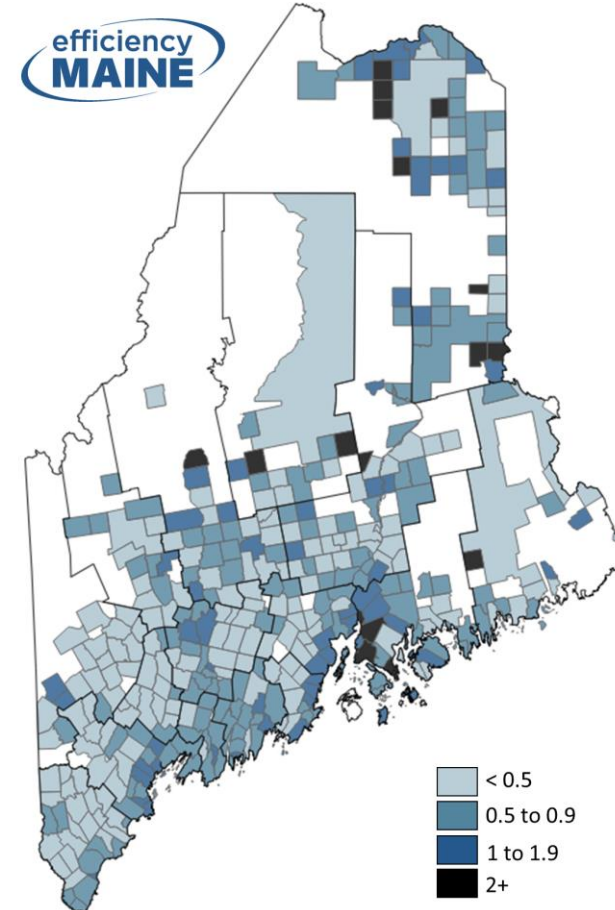
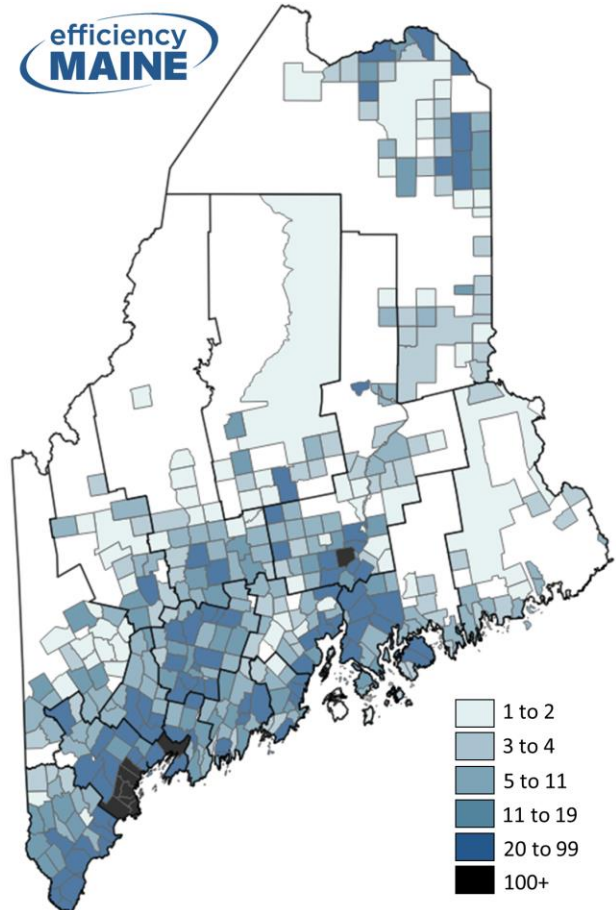
- \$25 million from the Maine Jobs and Recovery Plan to Efficiency Maine for home weatherization specifically targeted at low- to moderate-income dwellings in the state



Energy Efficiency: Weatherization

Left: Weatherization improvements rebated from 7/1/2020 to 6/30/2022

Right: Weatherization improvements rebated per 100 population from 7/1/2020 to 6/30/2022



Energy Efficiency: Heat Pumps

Maine is leading in heat pump installation rates

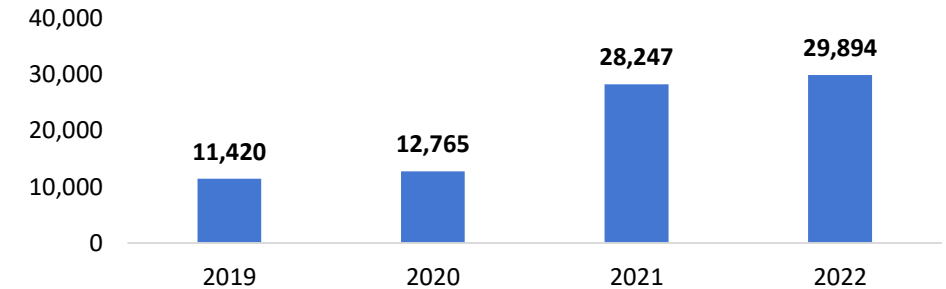
Legislative and climate goals

- Installation of 100,000 new heat pumps by 2025 with at least 15,000 heat pumps provided to income-eligible households
- Installed more than 82,000 new heat pumps since 2019, Efficiency Maine + Maine Housing

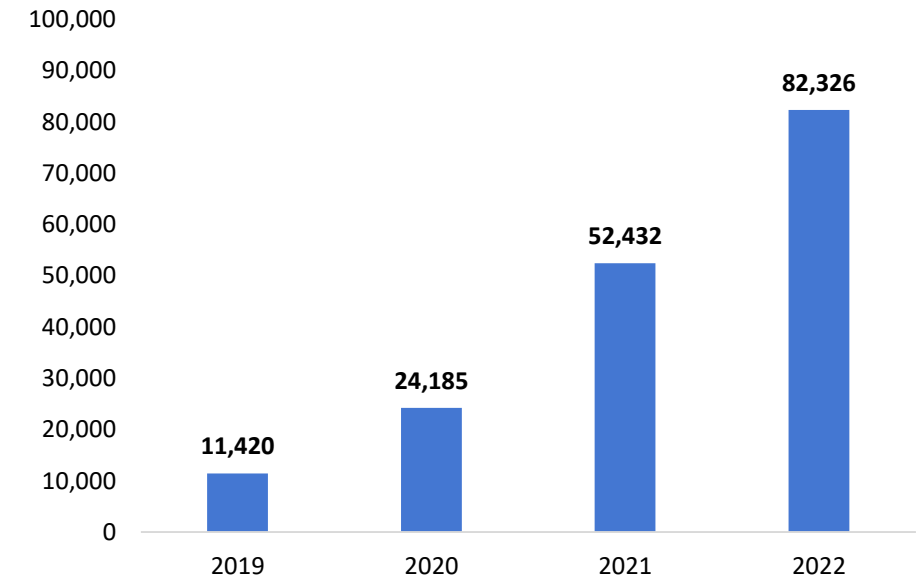
Reduction in oil dependence

- 82,326 heat pumps is equivalent to:
 - More than 2,000,000 MMBtu offset per year
 - More than 350,000 barrels of oil per year
 - More than 15,000,000 gallons of oil per year

Annual Heat Pump Installations, Maine



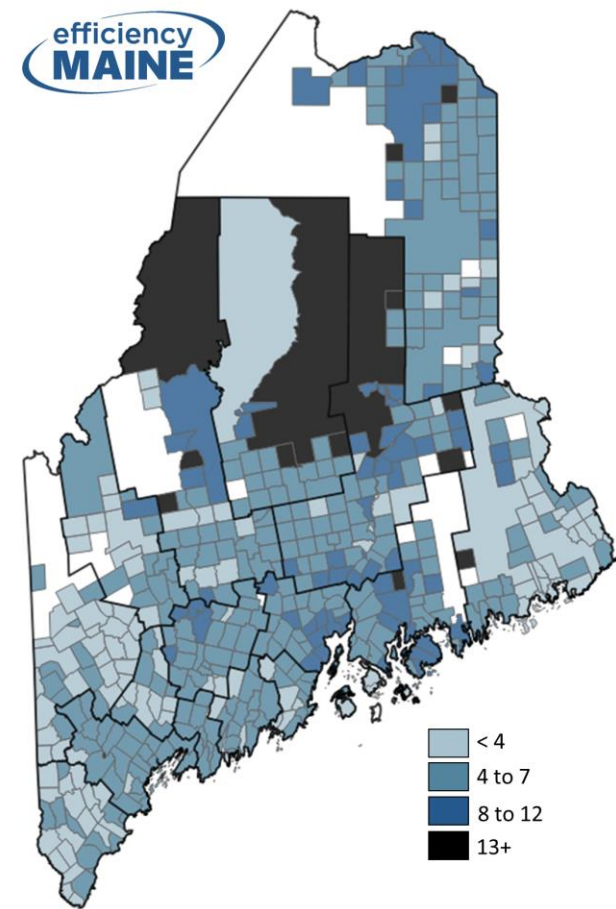
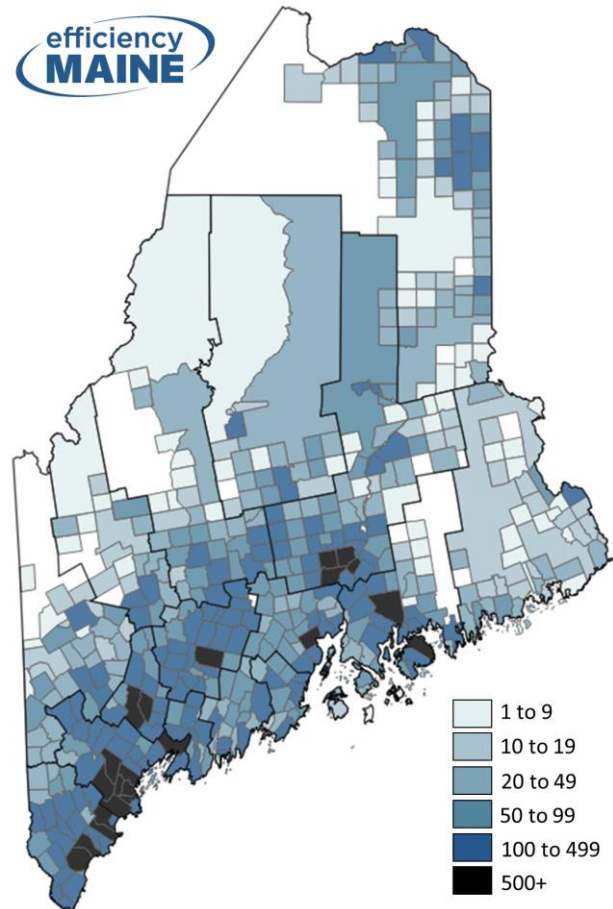
Cumulative Heat Pump Installation, Maine



Energy Efficiency: Heat Pumps

Left: Heat pumps rebated from 7/1/2020 to 6/30/2022

Right: Heat pumps rebated per 100 population from 7/1/2020 to 6/30/2022



Energy Efficiency

Heat Pump Water Heaters and Building Codes

Heat pump water heaters

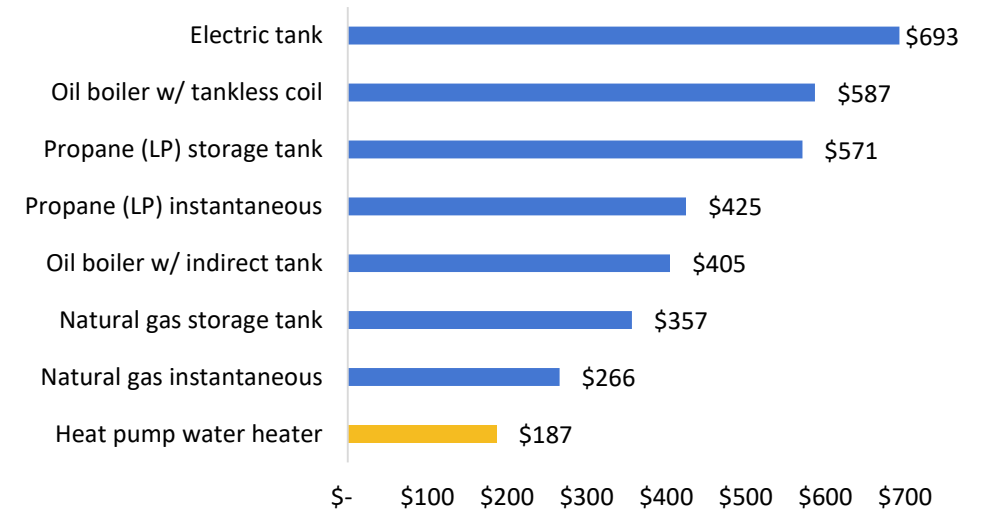
- Over 34,000 heat pump water heaters installed since 2019
- Efficiently provide hot water, help dehumidify, Efficiency Maine rebates

Building Codes

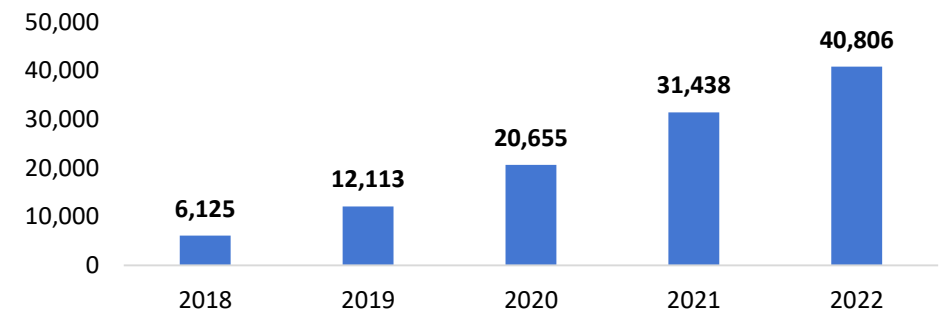
- The Maine Uniform Building and Energy Code (MUBEC) is the statewide building and energy code:
 - International Code Council (ICC)
 - ASHRAE
- Current is 2015, reviewing ICC 2021



Annual Water Heating Costs, Maine



Cumulative Heat Pump Water Heater Installations, Maine (2019-2022)



Clean Transportation

Maine Won't Wait: Embrace the Future of Transportation in Maine

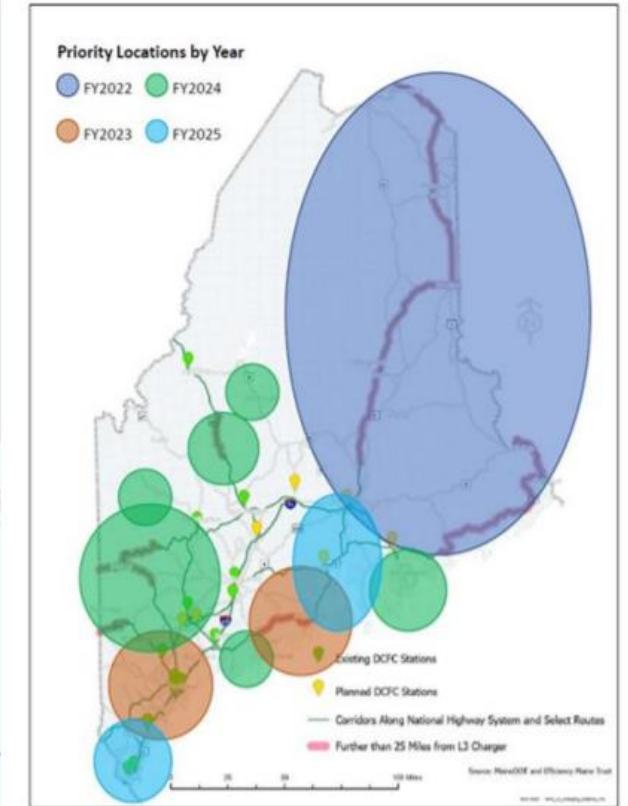
- **Electric Vehicle Charging Infrastructure Grants**

- More than 200 charging plugs at 72 locations across Maine, including 34 DC fast chargers

- **Electric Vehicle Rebates**

- Up to \$7,500 for individuals through Efficiency Maine. Also available for businesses, fleets, and other entities

- **Maine Electric Vehicle Infrastructure Deployment Plan** approved by Federal Highway Administration

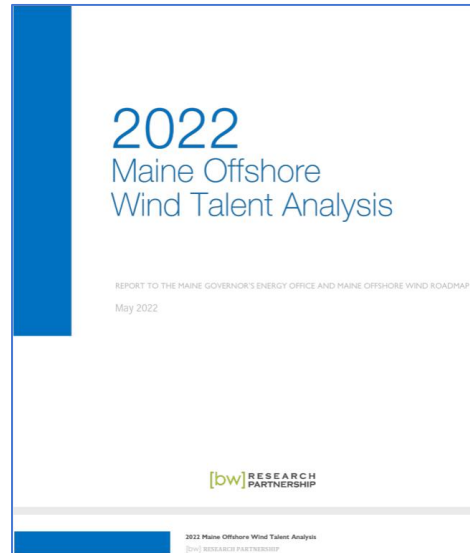
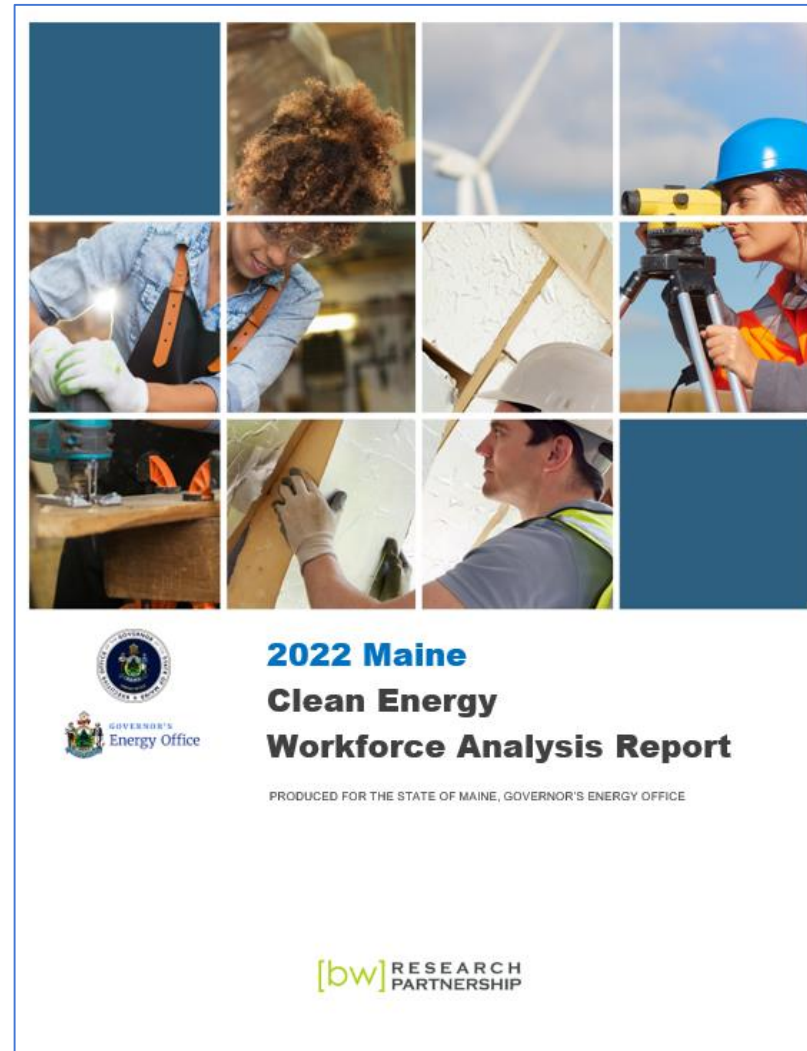
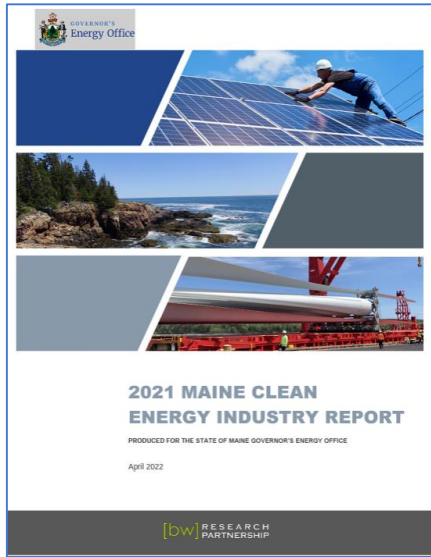


Clean Energy Partnership

- **Maine's Clean Energy Partnership (CEP)** was established to advance Maine's clean energy, economic development, and workforce goals. The CEP is supported by \$6.5M from the **Maine Jobs and Recovery Plan**.
- **Workforce Development (\$3.7m)**
 - \$2.9m to support workforce development
 - \$800k to develop workforce clearinghouse - centralized location with information related to education, training and employment opportunities and resources
- **Innovation (\$2.5m)**
 - \$2.25m in clean energy innovation and business support
 - \$250k for clean energy finance study
- **Advisory Group**
 - State Departments: Labor, Education, Economic & Community Development
 - Community Colleges & Universities; Labor, Industry, Researchers & Consultants



Clean Energy Workforce Research & Analysis

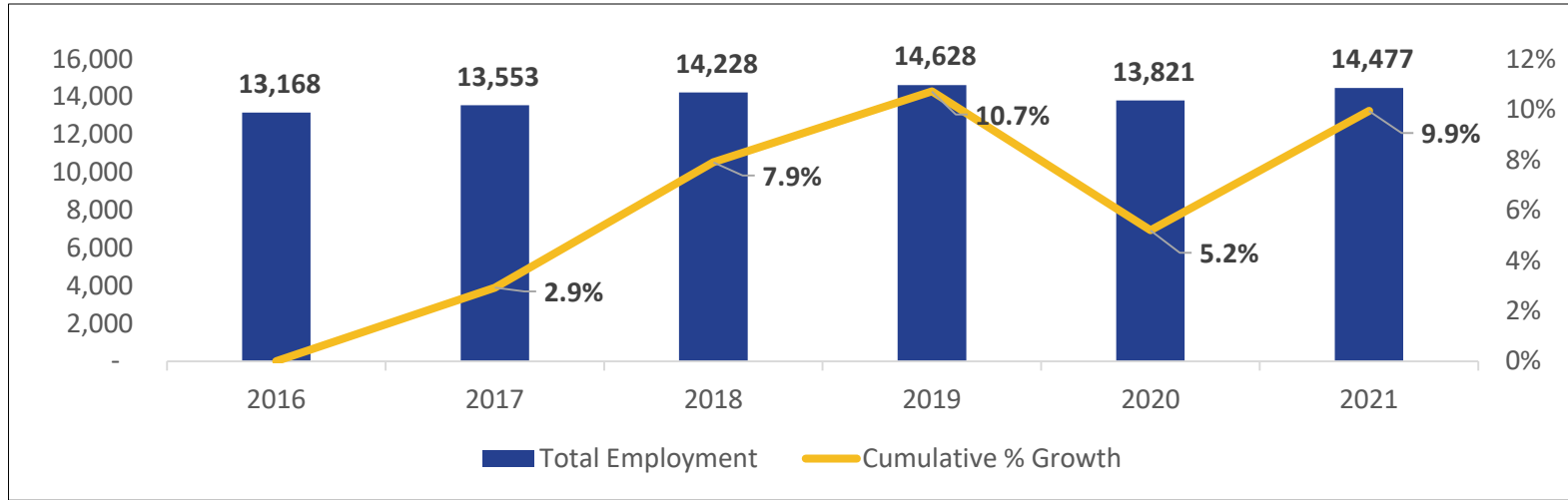


Key Research Activities:

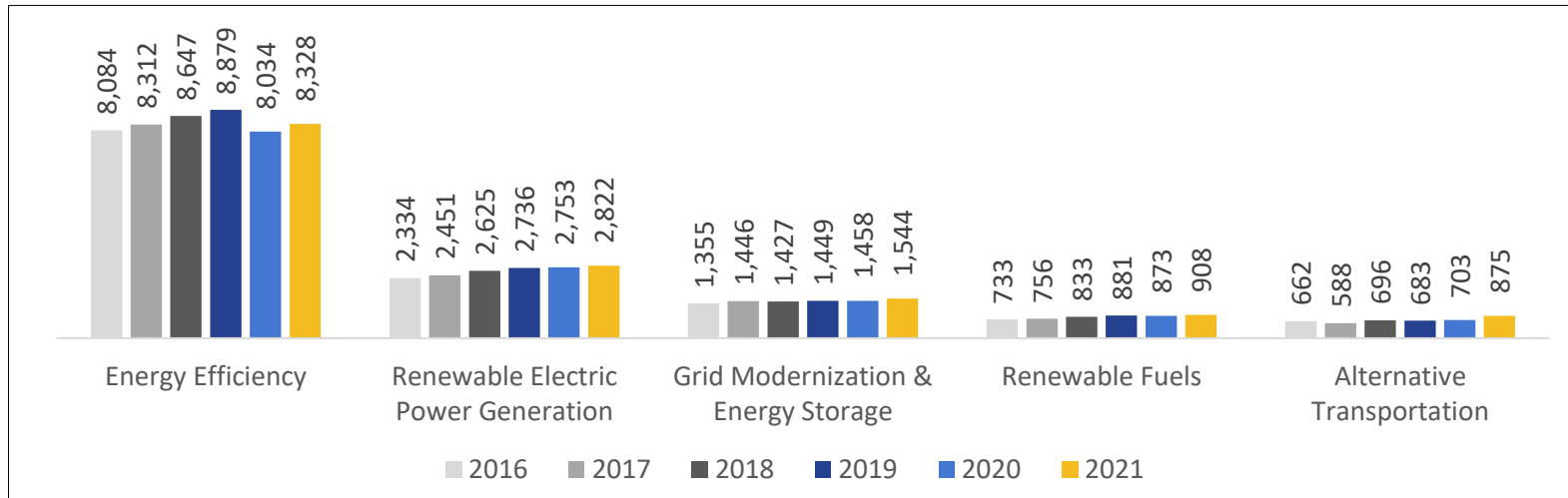
1. Define clean energy and related employment
2. Engage stakeholders
3. Identify employer needs and challenges
4. Understand training & asset landscape
5. Profile current and potential clean energy workers

Maine's Clean Energy Workforce

Energy efficiency accounts for over 50% of Maine's clean energy workforce



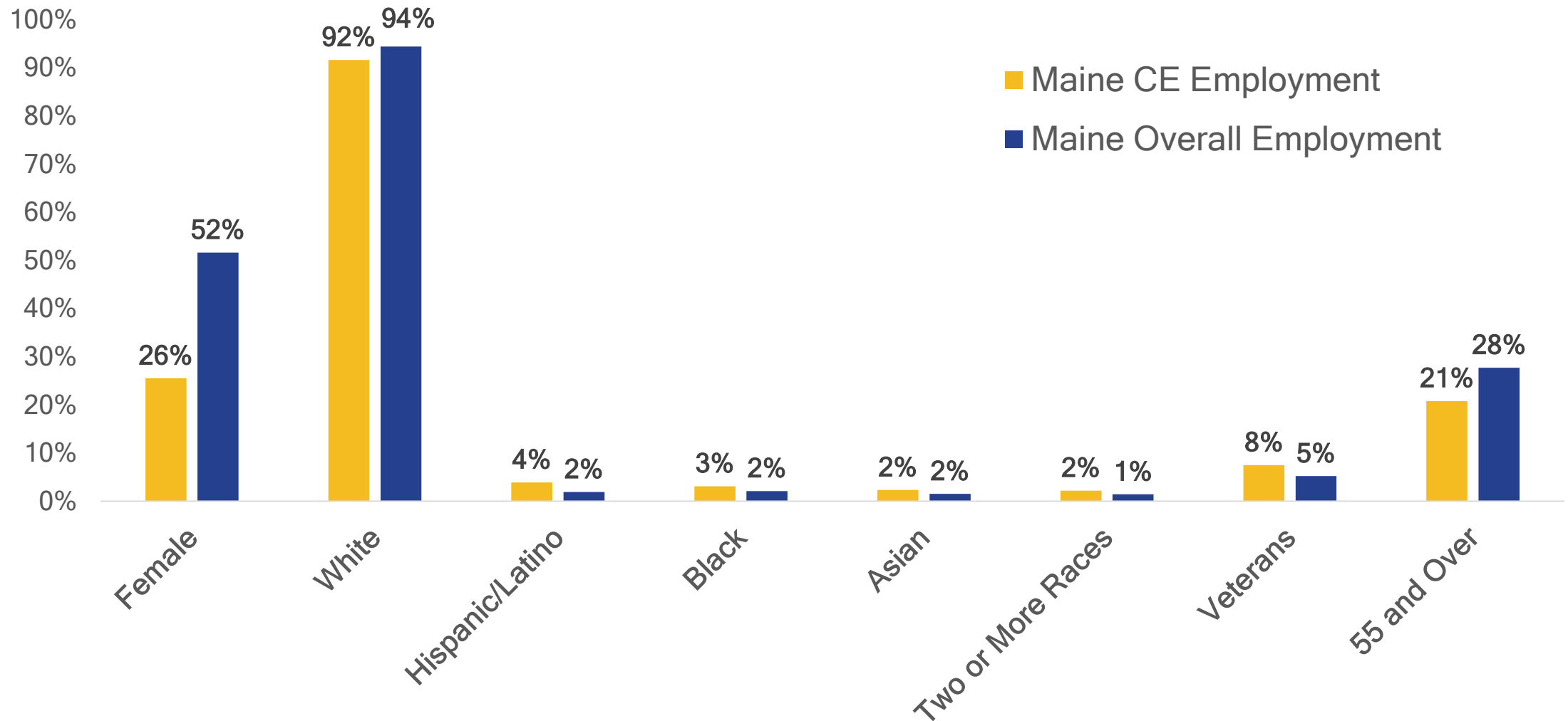
14,477
*Clean Energy
 Workers in 2021*



5%
+656 jobs
**Job Growth from
 2020 - 2021**

Maine's Clean Energy Workforce Demographics

Largely representative of the broader workforce, though women are underrepresented



Data source: Maine Clean Energy Industry Report (2021)

Federal Funds

Bipartisan Infrastructure Law - State is tracking where federal dollars align with state climate and resilience priorities

State Approach

- **Executive Order 2:** An Order Establishing the Governor's Infrastructure Implementation Committee
 - Made up of state agencies including DAFS, DECD/MCA, DEP, DOT, DHHS, GEO
- **Purpose:** Coordinate activities of state agencies to maximize the benefits of BIL. Ensure resources to utilize funds and coordinate on cross-cutting issues including permitting, workforce, labor requirements, and Justice40.

Energy Opportunities

- More than \$62 billion in funding administered by DOE to accelerate the clean energy transition including:
 - ~\$55 million for Maine in formula funding for energy-related programs
 - ~\$18 million in new programming and \$36 million for low-income weatherization via WAP
- GEO identified priority DOE items and additional opportunities to engage with other state agencies on cross-sector priorities like EV charging.

Federal Funds

Inflation Reduction Act - GEO is tracking opportunities to align programs with IRA benefits

- **\$369 billion in spending for climate change related programs and grants**
Electricity, transportation, buildings
- **Opportunities for States Energy Offices**
Grants and loans US DOE, US DOT, USDA, other federal agencies
 - Nearly \$9 billion for two residential energy efficiency rebate programs (HEERA, HOMES)
 - \$1 billion for building energy code activities; and
 - \$756 million for transmission siting and transmission-related economic development investments
- **Energy tax provisions**
 - Production tax credits (PTC)**
 - Investment tax credits (ITC)**
 - Projects can choose between PTC and ITC
 - Bonus credits
 - Includes direct pay and transferability
 - Prevailing wage and apprenticeship requirements apply
 - Residential tax credits**
- **40% emissions reduction by 2030**



Federal Funds: Buildings and Energy Efficiency

Energy Efficiency Revolving Loan Fund Capitalization Grant Program

- The Energy Efficiency Revolving Loan Fund Capitalization Grant Program is designed to provide capitalization grants to States to establish a revolving loan fund under which the State shall provide loans and grants for energy efficiency audits, upgrades, and retrofits to increase energy efficiency and improve the comfort of buildings.

Energy Efficiency and Conservation Block Grant Program

- The Energy Efficiency and Conservation Block Grant (EECBG) Program is designed to assist states, local governments, and Tribes in implementing strategies to reduce energy use, to reduce fossil fuel emissions, and to improve energy efficiency.

Energy Efficiency in Public Schools Program

- The U.S. Department of Energy recently announced first-of-its-kind investments to make clean energy improvements at K-12 public schools. Funds will position school districts to make upgrades that will lower facilities' energy costs and foster healthier learning environments for students.

Federal Funds: Buildings and Energy Efficiency

Building Codes Implementation for Efficiency and Resilience

- The Building Codes Implementation for Efficiency and Resilience Program is a competitive grant program to enable sustained, cost-effective implementation of updated building energy codes to save customers money on their energy bills.

HOMES and HEERA

- HOMES and HEERA will help households save money on energy bills, upgrade to clean energy equipment and improve energy efficiency, and reduce indoor and outdoor air pollution. The U.S. Department of Energy (DOE) estimates that the historic home energy efficiency and electrification consumer rebates authorized will save households up to \$1 billion annually.



Federal Funds: Workforce

The GEO responded to the Department of Energy State and Community Energy Program's Request for Information for three workforce development programs in January

Energy Auditor Training

- \$40 million to states to train individuals to conduct energy audits or surveys of commercial and residential buildings
- BIL Sec. 40503

Career Skills Training

- \$10 million for nonprofit partnerships to pay the Federal share of career skills training programs where students receive classroom instruction and on-the-job training to obtain industry-related certifications for installation of energy efficient building technologies
- BIL Sec. 40513

State-Based Home Energy Efficiency Contractor Training Grants

- \$200 million to states to provide training and education to contractors involved in the installation of home energy efficiency and electrification improvements, including improvements eligible for rebates under a HOMES rebate program or a high-efficiency electric home rebate program
- IRA Sec. 50123



Federal Funds

Tips for staying up-to-date on federal funding opportunities and engaging with partners

How to engage:

- Explore partnership opportunities with industry associations and state agencies
- Share needs to maximize program benefits to community members and ensure equitable distribution of benefits
- Identify and share workforce skills gaps with state agencies
- Elevate successful workforce development program models to state agencies

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Resources:

- Bipartisan Infrastructure Law Guidebook: <https://www.whitehouse.gov/build/a-guidebook-to-the-bipartisan-infrastructure-law/>
- Inflation Reduction Act Guidebook: <https://www.whitehouse.gov/cleanenergy/inflation-reduction-act-guidebook/>
- Home Energy Rebate website: <https://www.energy.gov/scep/slsc/home-energy-rebate-programs>
- EERE Exchange: <https://eere-exchange.energy.gov/>

A scenic view of a lake and forested hills under a cloudy sky. The foreground shows a large body of water surrounded by dense green forest. In the background, more hills and a larger body of water are visible under a sky filled with soft, white clouds. A central text box with a thin orange border contains the following text:

Thank You

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