

MAINE STATE LEGISLATURE

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Maine Governor's Energy Office
2019 ANNUAL REPORT



October 2021



GOVERNOR'S
Energy Office

www.maine.gov/energy

EXECUTIVE SUMMARY

As required by Title 2, §9, C-1, the Governor's Energy Office (GEO) shall submit an annual report to the Energy, Utilities and Technologies Committee that '*describes the activities of the office during the previous calendar year*'. This report covers the requirements for calendar year 2019.

The GEO, established within the Executive Department and directly responsible to the Governor, is tasked with myriad activities relating to state energy policies, planning and development. As the lead energy policy office for the state the GEO works on a wide range of energy issues and is responsible for several activities such as providing policy guidance and technical assistance, monitoring markets and reporting on heating fuel prices.

The GEO works in partnership with various state agencies, federal and local officials, Maine tribal representatives, industry, nonprofit interests, and academia on energy issues. The Director also sits on the Board of Efficiency Maine Trust, per statute, and in 2019 was a Board member of the National Association of State Energy Officials.

In 2019, Maine made major strides towards growing the clean energy sector and transforming our energy economy. Major legislative initiatives included reforming Maine's Renewable Portfolio Standards (RPS), establishing the Maine Climate Council, formalizing a Non-wires Alternatives process and promoting the adoption of solar energy and heat pumps. Other major initiatives throughout the year included the creation of the Maine Offshore Wind Initiative, accepting an invitation to join the Gulf of Maine Intergovernmental Regional Task Force on Offshore Wind with Massachusetts and New Hampshire, advancing electric vehicle rebate and infrastructure expansion programs, ending the state's moratorium on wind energy permits, negotiating a stipulation for the New England Clean Energy Connect project and providing ongoing heating fuel surveys.

These and other developments during 2019, supported by GEO, advanced clean energy solutions that will grow Maine's economy, engage in the important fight against climate change and ensure Maine people have a reliable and affordable energy supply.

INTRODUCTION

Mitigating and adapting to the impacts of climate change, and increasing renewable energy generation within the state, are priorities of Governor Mills' Administration. In 2019, working together with the Legislature and several other parties, the GEO made significant progress moving forward on these issues. Reducing the State's dependence on fossil fuels and transitioning to a more diverse portfolio of clean energy resources not only reduces the State's emissions, it also helps support Maine's economy by creating local job opportunities and reducing expenditures for out-of-state fossil fuels, keeping more money in Maine's economy.

Any consideration of Maine's energy sector must recognize that the state is a part of a regional electric grid, and that the state relies on regional and global supply chains for the petroleum products that fuel our cars and heat our homes. For Maine to achieve our climate and clean energy goals, progress must be made in advancing renewable energy resources, energy efficiency, the electrification and diversification of our heating and transportation sectors, and developing a grid that can support flexible demand and other new technologies.

In 2019, Maine set in place nation-leading policies that put the state on a path to meet these objectives and transform our energy sector. These policies will make Maine more independent, healthier, and more economically sound as our reliance on homegrown energy sources grows.

MAJOR LEGISLATIVE INITIATIVES

LD 1494: An Act to Reform Maine's Renewable Portfolio Standard

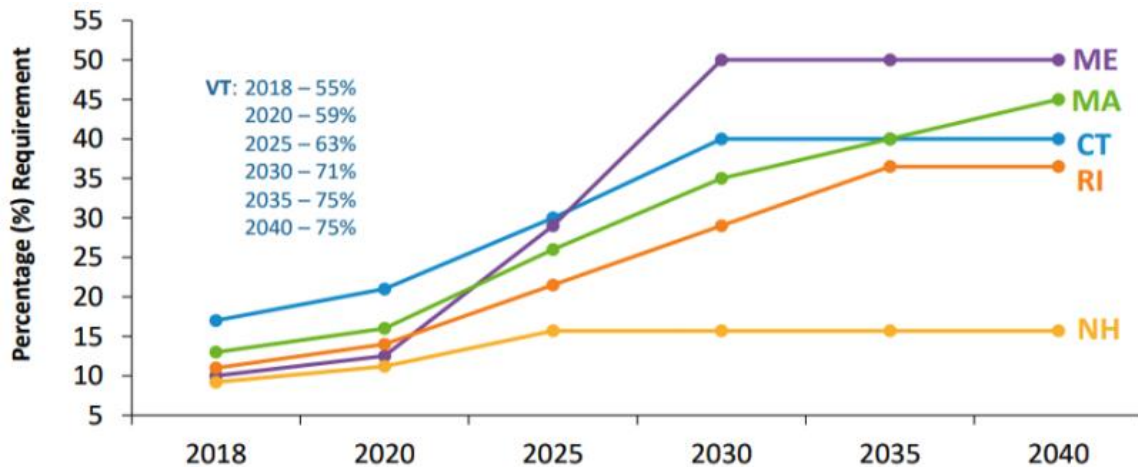
Renewable Portfolio Standards (RPS) require that a certain percentage of the electricity procured by utilities comes from renewable resources. Renewable energy generation, as defined by statute, is assigned a Renewable Energy Certificate (REC) for every megawatt-hour of electricity produced. RECs can then be sold by a Maine generator to an entity in Maine or in another state to meet a RPS requirement. Maine's utilities purchase RECs to meet their statutory RPS requirements.¹

In June 2019, Governor Mills signed legislation into law (LD 1494: An Act To Reform Maine's Renewable Portfolio Standard) increasing the state's RPS from 40 percent to 80 percent by 2030, and setting a goal of 100 percent renewable electricity by 2050. In addition, a separate obligation for thermal technologies was added to the Maine RPS, requiring four percent of Maine's heating and cooling load to be met by renewable resources in 2030. The Public Utilities Commission (PUC) is slated to conduct a rulemaking for this requirement in 2020. In order to help finance energy projects, changes to Maine's RPS law require the PUC to procure 14 percent of Maine's electrical load via 20-

¹ State of Maine Public Utilities Commission. (February 2019). 2018 Annual Report. Retrieved from https://www.maine.gov/mpuc/about/annual_report/documents/2018AnnualReportFinalReport4.pdf

year contracts. State RPS policies in 29 states and Washington, DC, currently apply to more than half of retail electricity sales in the United States.² Maine’s new RPS obligation is considered one of the most ambitious in the country.

Figure 1. ISO New England: Class I Renewable Portfolio Standards in New England³



LD 1679: An Act to Establish the Maine Climate Council to Assist Maine to Mitigate, Prepare for and Adapt to Climate Change

In June 2019, Governor Mills signed into law legislation creating the Maine Climate Council. The Council was charged with leading Maine’s efforts to reduce the state’s greenhouse gas emissions by 45 percent below 1990 levels by 2030 and at least 80 percent by 2050.

In addition, in September 2019, Governor Mills signed an executive order setting the goal of carbon neutrality by 2045. The Maine Climate Council, a group of 39 experts, advocates, scientists, and business leaders, began meeting in September of 2019 in order to develop a final report by the end of 2020.

The Maine Climate Council created seven different Working Groups or subcommittees that were tasked with developing recommendations on these crucial issues, including an Energy Working Group (EWG). The Director of the GEO serves as Co-Chair of the EWG, supported by GEO staff. The EWG mission is: “To develop, analyze, and recommend strategies to the Maine Climate Council

² Berkeley Lab, Electricity Markets and Policy Group. (July 2019). U.S. Renewables Portfolio Standards: 2019 Annual Status Update. Retrieved from <https://emp.lbl.gov/publications/us-renewables-portfolio-standards-2>

³ ISO New England. (October 2019). The New England states’ framework for reducing greenhouse gas emissions continue to evolve. Retrieved from <http://isonewswire.com/updates/2019/10/2/the-new-england-statesframeworks-for-reducing-greenhouse-ga.html>

(MCC) to mitigate emissions from, and adapt to the impacts of, climate change in Maine's energy sector." The Working Group works closely with the Transportation and Buildings, Infrastructure and Housing Working Groups to ensure appropriate coordination and alignment when providing recommendations.

The EWG formed a Clean Energy Economy subgroup to "provide feedback on a clean energy economy transition plan to the Maine Climate Council that includes barriers to advancing a clean energy economy, with a specific focus on strategies for sustained job creation."⁴

LD 994: Resolve, To Require the Approval by the Public Utilities Commission of a Proposal for a Long-term Contract for Deep-water Offshore Wind Energy

Governor Mills signed legislation (LD 994: Resolve, To Require the Approval by the Public Utilities Commission of a Proposal for a Long-term Contract for Deep-water Offshore Wind Energy) directing the approval of the contract for Maine Aqua Ventus, establishing the country's first floating offshore wind demonstration project in state waters.

LD 1181: An Act to Reduce Electricity Costs through Nonwires Alternatives

This legislation created the position of Nonwires Alternative Coordinator within the Office of the Public Advocate. This position is charged with the review of certain proposals for transmission upgrades in Maine and to provide an analysis of nonwires alternatives that could be pursued more cost-effectively instead. The duties of this coordinator includes investigation and identification of nonwires alternatives to proposed transmission lines and proposed transmission projects and evaluations of the costs and benefits of nonwires alternatives compared to utility capital investments in the transmission and distribution system. A nonwires alternative refers to "a nontransmission alternative or an infrastructure, technology, or application that defers or reduces the need for capital investment in the transmission and distribution system investment."⁵

LD 1401: Resolve, To Study Transmission Solutions to Enable Renewable Energy Investment in the State

Pursuant to this legislation, the Governor's Energy Office convened a stakeholder group to address transmission system needs and funding strategies to support renewable energy investment in the State. The group's report explains the current transmission and distribution system and identifies electricity market opportunities, constraints, related analyses, mechanisms for funding transmission upgrades, and options for further study. The final report, published at the end of 2019, can be found on the Governor's Energy Office website.⁶

⁴ State of Maine Governor's Office of Policy Innovation and the Future. (n.d.) Maine Climate Council, Energy Working Group. Retrieved from <https://www.maine.gov/future/initiatives/climate/climate-council/energy>

⁵ Maine Law 2019, Chapter 298.

⁶ Maine Governor's Energy Office. (n.d.) Governor's Energy Office Stakeholder Group. Retrieved from <https://www.maine.gov/energy/governors-energy-office-stakeholder-group.html>.

LD 91 An Act to Eliminate Gross Metering

In 2016 Maine came under the rule of a practice known as “gross metering”, which required solar panel owners to install a second meter to measure excess energy they produced through their solar array that was supplied back to Maine's electric grid. This electricity, even if used on site, was given a lower value. This legislation reversed that decision and restores net metering in Maine. As established by LD 91, Maine customers who own a solar PV system receive one to one credit for the excess electricity they produce per kilowatt hour.

LD 1711: An Act to Promote Solar Energy Projects and Distributed Generation Resources

This legislation incentivized distributed generation up to 5 megawatts (MW) in size. This legislation created a commercial and institutional net energy billing program which is to be reviewed in three years or when the total amount of generation capacity involved in net energy billing in the State reaches 10% of the total maximum load of transmission and distribution utilities, whichever comes first. The legislation also established commercial and institutional and community-shared declining price block procurements totaling 375 MW of distributed generation. Those programs are in addition to legislation that restored net metering for residential customers.

LD 1766: Act to Transform Maine's Heat Pump Market to Advance Economic Security and Climate Objectives

On June 14, 2019, Governor Mills signed this legislation to promote heat pumps. The bill, offered by Governor Mills and presented by Senator Mark Lawrence of York, establishes the goal of installing 100,000 heat pumps in Maine by 2025. This will be achieved through additional Efficiency Maine Trust (EMT) incentives, funded through Forward Capacity Market revenues, and coordinated programming with Maine State Housing Authority, funded by a portion of the Low-Income Home Energy Assistance Program (LIHEAP).

Adding 100,000 new heat pumps in Maine in 5 years is forecasted to reduce heating bills between \$300 and \$600 a year per home. These savings may be spent on local goods and services, creating a multiplier effect on the local economy. One Maine utility provider estimates that for every 1,000 high-performance heat pumps added in their territory, it will have the effect of suppressing electricity rates by \$300,000 a year.⁷

⁷ Testimony of Emera Maine on LD 1766, An Act To Transform Maine's Heat Pump Market To Advance Economic Security and Climate Objectives, before the Joint Standing Committee on Energy, Utilities and Technology on May 23, 2019. <https://www.mainelegislature.org/legis/bills/getTestimonyDoc.asp?id=127647>

OTHER MAJOR INITIATIVES

Maine Offshore Wind Initiative

Through the Maine Offshore Wind Initiative, the state will explore opportunities for thoughtful development of offshore wind energy in the Gulf of Maine and determine how to best position Maine to benefit from an industry expected to generate \$1 trillion in global investment by 2040.

Launched in June 2019 by Governor Mills, the Initiative aims to balance this industry development with our state's maritime heritage and existing marine uses to ensure sustainable preservation of the natural resources in the Gulf of Maine.⁸ Importantly, the Initiative is charged with promoting compatibility between potential future uses and existing uses in the Gulf of Maine to inform offshore wind siting considerations and minimize impact on Maine's commercial fishing and maritime industries.

While the Maine Offshore Wind Initiative will be led by and include state agencies, it will also solicit the participation of local officials, Maine tribal representatives, marine interests, commercial fishing, energy and environmental organizations, academics, scientists, business and labor. For state agencies, the Initiative will include officials from the Governor's Energy Office, Governor's Office of Policy Innovation and the Future, Department of Economic and Community Development and the state's natural resource agencies, including the Department of Environmental Protection and the Department of Marine Resources.

Also in June 2019, Governor Mills announced that the State of Maine has accepted an invitation from the Bureau of Ocean Energy Management (BOEM) to participate in a federally-led Gulf of Maine Intergovernmental Regional Task Force on offshore wind with New Hampshire and Massachusetts. The Task Force, which involves governmental agencies, will seek to identify potential opportunities for renewable energy leasing and development on the Outer Continental Shelf in the Gulf of Maine. The Task Force seeks to facilitate coordination among federal, state, local, and tribal governments regarding the federal wind energy leasing process. The Task Force had its first meeting in December 2019; materials from the task force meeting are publicly available on BOEM's website.⁹

Executive Order Ending Wind Farm Permit Moratorium

On February 15, 2019, Governor Mills signed an Executive Order to end a moratorium on wind farm permits. This order clarifies that state agencies with the legal authority to issue permits can once again

⁸ "Governor Mills Signs Bill to Advance Offshore Wind Demonstration Project, Announces Maine Offshore Wind Initiative." Office of Governor Janet T. Mills. June 2019. Retrieved from <https://www.maine.gov/governor/mills/news/governor-mills-signs-bill-advance-offshore-wind-demonstration-project-announces-maine-offshore>

⁹ Gulf of Maine Intergovernmental Renewable Energy Task Force Meeting, U.S. Bureau of Ocean Energy Management, Dec. 2019. Available at: <https://www.boem.gov/renewable-energy/state-activities/gulf-maine-intergovernmental-renewable-energy-task-force-meeting>

do their work with Maine's local communities and stakeholders to determine which projects should go forward.

Electric Vehicle (EV) Rebate and Infrastructure Expansion Programs

Governor Mills announced the launch of the Electric Vehicle (EV) Accelerator Program to provide electric vehicle rebates for Maine people on August 30, 2019. The EV Accelerator Program, offered through Efficiency Maine, uses Volkswagen settlement funds to provide \$1,000-\$2,000 rebates on qualifying Plug-in Hybrid and Battery Electric Vehicles. It also offers enhanced rebates for low-income households and for governmental and tribal government entities.

On October 25, 2019, Governor Mills announced incentive awards to 23 municipalities to install 47 new charging stations across the state for the public. Efficiency Maine is helping the municipalities to install "Level 2" charging stations in strategic locations across the state. These charging stations will continue to fill in Maine's growing EV charging infrastructure while supporting both local and visiting electric vehicle drivers. This effort to expand Maine's EV charging infrastructure is funded by the Volkswagen settlement funds.¹⁰

Heating Fuel Survey

Throughout 2019, GEO continued its weekly heating fuel price survey. This survey collects data from fuel retailers statewide on average cash prices for heating oil, kerosene, and propane. Prices are published on the GEO website.¹¹

GEO Report on Increasing Energy Independence in Maine

Pursuant to Public Law 2019, Chapter 30, LD 658: Resolve to Increase Energy Independence for Maine ("the Resolve"), the Governor's Energy Office (GEO) was required to conduct an analysis of at least one scenario through which the State can become a net exporter of energy by 2030. This process was initiated in 2019 and a report was issued to the Joint Standing Committee on Energy, Utilities and Technology in early 2020.

OFFICE RESOURCES

During 2019, the Governor's Energy Office operated with a staff of four individuals (though at times due to turnover there were two employees), each of whom helped meet the office's responsibilities as outlined above. Throughout the year, GEO staff worked with Efficiency Maine Trust to coordinate initiatives and legislation, stakeholder engagement, and program development with the Efficiency Maine Trust. Additionally, the GEO Director Dan Burgess served as a member of the Efficiency

¹⁰ Efficiency Maine Trust. About Electric Vehicle Initiatives. Retrieved from <https://www.energymaine.com/at-work/electric-vehicle-supply-equipment-initiative/>

¹¹ Maine Governor's Energy Office. Current Heating Fuel Prices. Retrieved from https://www.maine.gov/energy/fuel_prices/index.shtml

Maine Trust Board of Directors. GEO also worked very closely with multiple state agencies and departments, including the Governor's Office of Policy Innovation and the Future.



Bingham Wind Project, Novatus Energy.

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