

## Energy Working Group – Maine Climate Council

In-Person Meeting

Monday, April 29, 2024, 9am – 12pm

Burton Cross Building, Room 103, Augusta

Hybrid option: <https://cbi-org.zoom.us/meeting/register/tZAuc-mrqTlvE9O6IKXodGxpbAEfwS4cupsJ>

*For questions, please contact Caroline Colan ([caroline.colan@maine.gov](mailto:caroline.colan@maine.gov)) or David Plumb ([dplumb@cbi.org](mailto:dplumb@cbi.org)).*

**Meeting Purpose:** Review and provide feedback on a subset of draft recommendations and strategies developed by the Energy Working Group to date.

*Handouts containing draft materials for discussion included in this packet.*

**Maine Climate Council Energy Working Group: Energy Burden & Energy Access – Draft text**

<b>Recommendation:</b>	
Decrease energy burdens for Mainers by reducing barriers to participating in the state’s energy transformation.	
<b>Actions:</b>	<b>Supporting Information:</b>
<p>Better understand the burden across all energy costs: Conduct a comprehensive assessment of energy burden in Maine by 2025 that considers in its analysis electrification of buildings and transportation. Regularly reassess energy budgets of highest burdened populations to build understanding of energy disparities and inform targeted policy interventions that maximize benefits for low-income communities.</p>	<p>Energy burden analyses can typically include electricity and heating fuels and exclude transportation, water, and other energy-related costs. As Maine pursues significant building and transportation electrification goals, future energy burden analyses might consider including additional costs. Regularly reassessing energy costs of Maine’s highest burdened populations will help identify disparities and inform targeted program delivery that helps the lowest income people reduce their reliance on the most expensive fuels.</p> <p>A 2019 Home Energy Burden Study of low-income Maine households, prepared for the Maine Office of the Public Advocate (OPA), found that Maine’s low-income residents face higher energy burdens than other residents. The average home energy burden for low-income households in 2018 was 19% while the average home energy burden for all Maine households was 6%. The OPA intends to update this analysis in 2024.</p>
<p>Reduce capital and financial barriers: Develop and support the availability of expanded financing options and ownership models to reduce barriers to accessing the benefits of clean energy and energy efficiency investments for low- and moderate-income households, disadvantaged communities, and small businesses.</p>	<p>Clean energy investments—such as energy efficiency, weatherization, and renewable energy—can deliver long-term, high-impact solutions to reducing energy burdens. To minimize barriers and maximize program benefits in low-income communities, best practices for program design, delivery, and evaluation should be implemented.</p> <p>On April 22, 2024, the U.S. Environmental Protection Agency (EPA) selected Maine’s proposal for a \$62 million grant award to provide financial and technical assistance enabling low-income and disadvantaged households across the state to access solar and energy storage. The proposal puts forth a range of programs and financing options designed to ensure a pathway to solar participation is available to renters and homeowners, rural and urban households, and households that may not be well-suited for on-site solar. Maine plans to serve X low-income participants through the Solar for All program.</p>

<p>Assist Mainers in navigating government programs: Launch an energy navigator program to provide education and technical assistance related to available energy bill assistance programs and state and federal funding opportunities (grants, rebates, and other incentives).</p>	<p>Guidance products and/or energy coaching could assist individuals and communities in understanding their options for funding and stacking available opportunities that meet their energy needs.</p>
<p>Adequately fund core assistance programs: Ensure adequate and sustainable funding for energy bill assistance programs and streamline program enrollment to support delivery of funds to a greater portion of eligible households.</p>	<p>To be eligible to participate in Maine's Low Income Assistance Program (LIAP) household income must be at or below 150% of the Federal Poverty Limit. According to the Office of the Public Advocate, 122,000 households in Maine meet that threshold, but a large portion of eligible households don't enroll or receive a benefit for several reasons.</p>

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**Maine Climate Council Energy Working Group: Building Necessary Clean Energy Infrastructure – Draft text**

<p><b>Recommendation:</b> Advance policies that support timely and cost-effective planning and buildout of necessary clean energy infrastructure to meet state goals and statutory requirements including 100% clean electricity by 2040.</p>	
<p><b>Actions:</b></p>	<p><b>Supporting Information:</b></p>
<p>Establish a regular cadence of clean energy procurements to ensure timely deployment of projects to meet demand, and annually evaluate outcomes, technology and electricity market opportunities, and implement changes as needed to ensure success.</p>	<p>In 2019, Governor Mills signed legislation that increased Maine’s Renewable Portfolio Standard (RPS)—the minimum portion of electricity sold in Maine supplied by renewable sources—to 80% by 2030. A recent <a href="#">report</a> commissioned by the GEO as required by the Legislature found that Maine’s RPS has benefitted Maine’s economy, supporting significant direct investments, job creation, and more than \$21 million in annual net electricity cost savings since 2011. The report also finds that in order to continue to meet that requirement, Maine will need to bring significantly more renewable energy projects online in the coming years. By utilizing existing authority, new competitive procurements of Maine-based renewables can deliver substantial additional value to host communities, bolstering local reliability, jobs, and tax revenues while reducing reliance on volatile, out-of-state fossil fuels.</p> <p>In doing so, it is vital to integrate offshore wind, distributed energy resources (DERs), and energy storage, for which the state has established specific deployment targets, and to consider demand management capabilities.</p>
<p>Develop stakeholder-informed resources that provide fact-based information, model ordinance or zoning language, and community benefit information to support participation by local governments and communities in energy planning, siting, permitting, management, and resilience processes.</p>	<p>Maine has an abundance of high-quality clean energy resources available for development that positions the state well to achieve its goals. At the same time, Maine is a rural, aging, and densely forested state. Reaching Maine’s policy requirements necessitates intentional action and thoughtful policy and program support to ensure that the clean energy transition is effective, affordable, and equitable, allowing communities across the state to participate and benefit from this transformation.</p> <p>Few communities in Maine have ordinances or comprehensive plans that address renewable energy resources specifically. Some communities find they can regulate these resources under existing general development rules while others with limited zoning and land use regulations in place have been taken by surprise or feel they lack adequate information to inform decision making when development proposals have come before their selectboard.</p>

<p>Review state policies for the permitting and siting of clean energy projects and transmission resources, with the intent of finding opportunities to enhance efficiency, predictability, and transparency, while providing for meaningful public engagement and protection of natural resources.</p>	<p>Meeting Maine’s clean energy goals will require significant additional buildout of energy generation, transmission, and distribution. Delays in siting and permitting processes can delay development and operation of clean energy projects and create uncertainty that increases costs. Timely, predictable permit review and dispute resolution processes can accelerate deployment and reduce development costs. The state should proactively work with landowners, developers, fishermen, and other important stakeholders to minimize conflicts related to development.</p>
<p>Engage in grid planning at multiple levels. Plan for electricity reliability and resilience with Maine-specific load forecasting to inform distribution system capacity upgrades and optimize the location of new distributed energy resources. Engage in regional coordination and cost-sharing of large-scale resource procurements and transmission infrastructure.</p>	<p>As Maine electrifies, the distribution system will play a greater role in providing energy across the economy, in reducing emissions, and in doing so cost-effectively. Electric system planners and operators must adapt to evolving end-uses, additional distributed energy resources, and greater load flexibility. Planners and regulators should also introduce and facilitate retail markets, access, information, and compensation necessary to enable these new resources to effectively contribute to meeting grid needs and reducing ratepayer costs. The distribution system will likely need significant upgrades to serve peak demand across geographies. Proactive and granular planning can inform efficient investments and targeted deployment of clean generation.</p> <p>Significant transmission investments are also likely to be required to meet Maine’s goals. Long-term transmission planning that incorporates load growth projections, rather than only near-term reliability needs, can reduce costs to ratepayers.</p> <p>The state, utilities, ISO-NE, the PUC, stakeholders, and advocates all have important roles in ensuring the implementation of such plans.</p>
<p>Continue improving and modernizing the process for connecting clean energy projects to the grid to support certainty, timeliness, and affordability.</p>	<p>Interconnection is a challenge facing proposed clean energy projects across the country, including in Maine. At the end of 2022, there were more than 1,350 GW of generation and 680 GW of energy storage projects in interconnection queues nationally. According to Lawrence Berkley National Laboratory, projects that reach construction took an average of five years from interconnection request to commercial operation.</p> <p>At the state level, interconnection policy reforms would be considered within the Maine Public Utilities Commission Small Generator Interconnection Procedures Rules (Chapter 324). “Flexible interconnection” is an emerging strategy which could reduce delays and costs, and increase the success rate for interconnection through increased visibility and controllability of distributed energy resources.</p>

Implement the Maine Offshore Wind Roadmap, including near-term infrastructure investments—such as a dedicated Maine port—and advancement of Maine-based innovations to meet the state’s energy goals and to position the state as a competitor in the emerging national and international offshore wind industry.

Offshore wind presents a generational economic and energy opportunity for Maine. As an abundant source of clean and renewable energy, offshore wind has the potential to help free Maine from its reliance on fossil fuels, to lower energy costs and volatility, and to curb climate-altering emissions to protect our state’s environment for future generations. As an industry, offshore wind is poised to grow significantly in the coming years. This growth will support existing and emerging Maine companies, create new jobs and career opportunities for Maine citizens, attract new workers and families to Maine, and deliver infrastructure investments in communities across the state. The Maine Offshore Wind Roadmap is a stakeholder-driven comprehensive plan that offers detailed strategies for Maine to realize the economic, energy, and climate benefits from offshore wind, in conjunction with communities, fisheries, and wildlife of the Gulf of Maine.

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**Maine Climate Council Energy Working Group: Demand Management – Draft text**

<p><b>Recommendation:</b> Develop and implement demand management and innovative load flexibility strategies and technologies to support energy reliability and resiliency, reduce electricity peaks and overall system costs, accelerate beneficial electrification, and reduce emissions.</p>	
<p><b>Actions:</b></p>	<p><b>Supporting Information:</b></p>
<p>Support the adoption of software and technologies that enable signals based on electricity grid conditions to manage demand and supply.</p>	<p>Essential software and technologies should include:</p> <ul style="list-style-type: none"> <li>• Distributed energy resource management systems (DERMS) for a program administrator</li> <li>• Automated network sensing, management, and communications systems for distribution circuits, and cost-effective and timely interconnection of distributed resources based on their expected operating characteristics. Such systems and data should be made available to allow multiple different actors market access and the ability to innovate and play a role in meeting grid needs</li> <li>• Incentivize smart vehicle charging, grid-integrated devices (such as hot water heaters), and other consumer technologies to avoid creating lost opportunities</li> <li>• Robust data privacy and consumer protections</li> </ul>
<p>Support the adoption of policy, programs, mechanisms, markets, and a regulatory environment that facilitate customer participation and choice in demand management and related strategies.</p>	<p>Specific areas of focus should include:</p> <ul style="list-style-type: none"> <li>• Scaling up demonstration projects</li> <li>• Rate designs that create customer savings by aligning customer costs with electricity system costs (such as minimizing peak demands on distribution and transmission infrastructure and maximizing demand under low-load and high-renewable conditions)</li> <li>• Open access opportunities that utilize standardized data and enable pay-for-performance incentives</li> <li>• Opportunities for aggregation and automation</li> </ul>
<p>Ensure equitable access to programs/pilots as well as equitable distribution of benefits.</p>	<p>There are different components to considering the impact of demand management activities on low and moderate-income customers:</p> <ul style="list-style-type: none"> <li>• Managing demand successfully reduces overall system costs, which translates to lower costs, or avoided costs, for everyone, which is particularly important for Maine’s most vulnerable customers.</li> <li>• Different initiatives will target different types of customers (based on customer class, etc.). Careful attention to the distribution of benefits and burdens of all programs is warranted.</li> </ul>

	<ul style="list-style-type: none"> <li>• Programs targeting households should strive to be designed to be as inclusive as possible with diverse customers and include effective education and outreach to support beneficial participation.</li> </ul>
<p>Undertake education and communication around the opportunities and benefits of demand management initiatives with consumers, communities, policymakers, and regulators.</p>	<p>Effective communication of programs is critical to achieve program objectives and goals. Several entities with different audiences will play a role in robust communications.</p> <ul style="list-style-type: none"> <li>• Immediate priority outreach needs include encouraging EV owners to participate in flexible charging.</li> </ul>

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