



Natural Resources Council of Maine

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Testimony in Support of LD 1830, An Act to Advance Maine's Clean Energy Goals

By Rebecca Schultz,
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Senator Lawrence, Representative Zeigler, and members of the Joint Committee on Energy, Utilities and Technology, my name is Rebecca Schultz. I am a Senior Advocate for Climate and Clean Energy at the Natural Resources Council of Maine (NRCM). NRCM is Maine's leading environmental advocacy organization with more than 25,000 members and supporters. I am testifying in support of LD 1830.

LD 1830 builds on the Public Utility Commission's (PUC) tried and true approach of using competitive solicitation to advance Maine's clean energy commitments.

We urgently need new renewable energy resources to meet our climate and clean energy goals.

Analysis by consultant E3 on behalf of the Governor's Energy Office (GEO) in 2021 concluded that Maine had enough resources under development to meet its renewable portfolio standard (RPS) through 2026, but that new investments would be needed to keep the state on track thereafter (see attached Figure 1). The year 2026 is now within a project development horizon. The deficit is even more pressing given that many of the contracts awarded through two tranches of procurements in 2020 and 2021 totaling 968 megawatts (MW), faced with unforeseen pandemic-era circumstances, are unlikely to get built. This bill smartly addresses that setback by authorizing the PUC to work with GEO to assess those projects and re-procure the output of contracts that have not made demonstrable progress toward commercial viability.

Competitive procurement is a common-sense, low-risk strategy for getting renewable energy built in Maine. Maine's Public Utilities Commission has a successful track record administering competitive solicitations to contract for cost-effective renewable energy. This is a long-standing and core component of Maine's effort to diversify and decarbonize its energy sector. We should continue to rely on this proven approach in the near-term to maintain momentum and keep pace with our renewable energy requirements as we move forward in electrifying buildings and transportation.

Renewable energy is good for Maine's economy and puts downward pressure on rates. Wind and solar are home-grown energy resources that directly substitute fossil fuel-dominated energy from the regional grid. With no fuel costs and virtually no operating costs, these renewable energy contracts have a downward and stabilizing effect on electricity rates across the state. We saw this last summer when the PUC approved decreases in delivery rates due to renewable energy procurements.¹

¹ The Commission announced a decrease in delivery prices for Central Maine Power (CMP) residential customers of 5.5 percent, a decrease in delivery prices for Versant Power-Bangor Hydro District residential customers of 3.8 percent, and a decrease in delivery prices for Versant Power-Maine Public District residential customers of 3.5 percent effective July 1, 2022. Maine Public Utilities Commission, June 14, 2022, Press Release, available at <https://www.maine.gov/tools/whatsnew/index.php?topic=puc-pressreleases&id=8025065&v=article088>.

Wind and solar are the least-cost energy resources available today. Even accounting for variable output and anticipating near-term declines in natural gas prices, solar and onshore wind continue to be the cheapest energy resource options available (see attached Figures 2 and 3). The Energy Information Administration estimates that the cost to build and operate a photovoltaic (PV) facility in the U.S. today is \$23 per megawatt-hour (MWh). For PV coupled with a four-hour battery storage system to achieve roughly equivalent reliability to conventional dispatchable generation resources, the cost increases to \$36 per MWh—still well below the cost of a combined-cycle natural gas unit at \$43. The economic advantage is clear and is driving a transformation in the power sector around the country.

The bill shrewdly aligns pressing public policy goals. By restricting eligibility to projects sited on contaminated lands or combined renewable-storage projects, the bill advances important public policy objectives in tandem with our renewable energy commitments. With a current installed capacity of 50 MW, Maine is falling behind on its statutory energy storage targets: 300 MW of installed capacity by 2025 and 400 MW by 2030. The bill directs the Commission to adopt rules to define combined renewable-storage projects, providing an opportunity to clarify the value propositions that best suit the needs of the grid and enhance ratepayer benefits. Additionally requiring the Commission to favor in its bid selection projects sited on contaminated lands, the procurement can help optimize land-use and create a valuable economic lifeline to impacted landowners seeking to repurpose contaminated lands.

NRCM strongly supports this bill, and we urge you to vote Ought to Pass.

Thank you for this opportunity to provide testimony.

Figure 1. An analysis undertaken by the Governor’s Energy Office found that Maine needs new resources online and generating Renewable Energy Credits (RECs) starting in 2026 to comply with its RPS commitment. The analysis assumed projects procured in 2020 and 2021 totaling 968 MW would get built.²

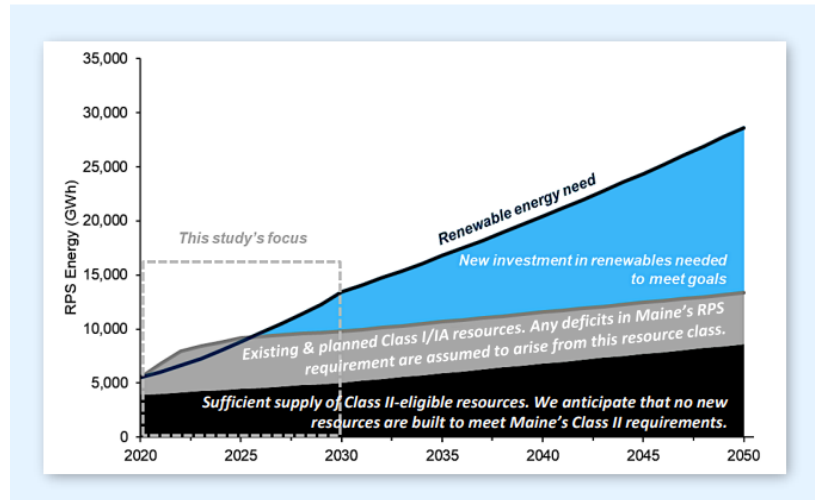
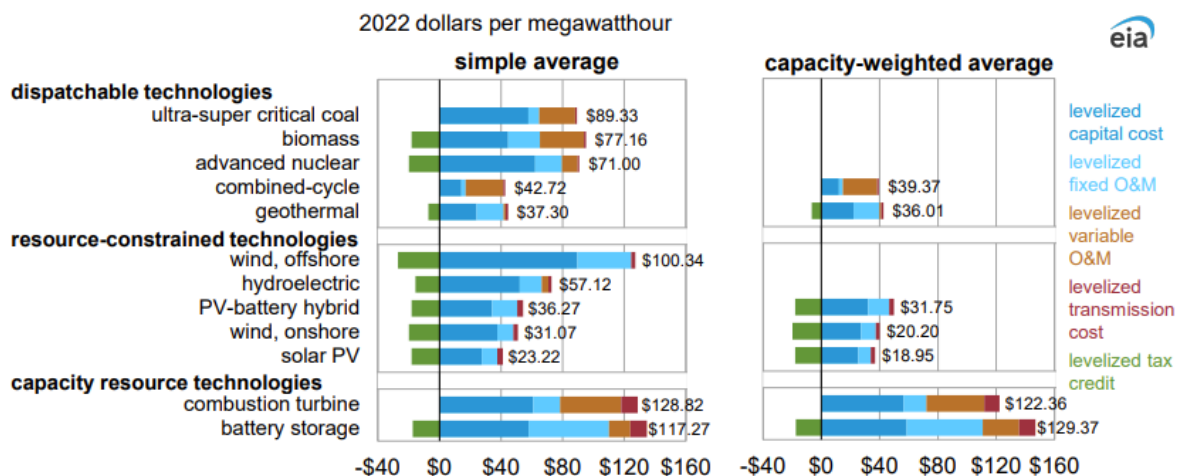


Figure 2. Estimated levelized cost of electricity (LCOE) and levelized cost of storage (LCOS) for new resources entering service in 2028. Levelized costs reflect the cost to build and operate a facility.³



Data source: U.S. Energy Information Administration, Annual Energy Outlook 2023
 Note: PV = photovoltaic, O&M = operations and maintenance; technologies in which capacity additions are not expected in 2028 do not have a capacity-weighted average. The stated LCOE values include the levelized tax credit component for eligible technologies.

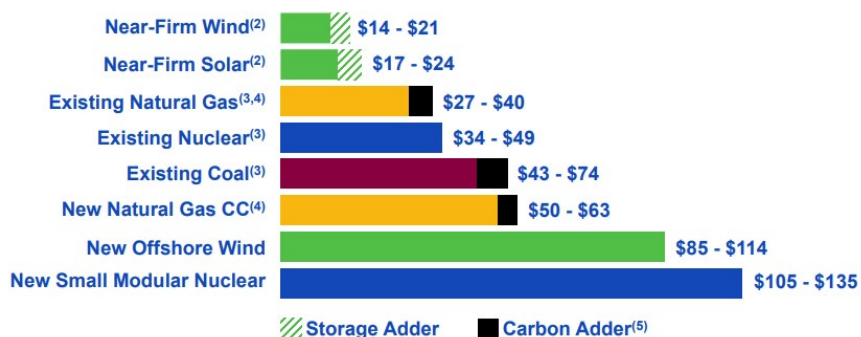
² Energy & Environmental Economics (E3) on behalf of the Governor’s Energy Office, Maine Renewable Energy Goals Market Assessment, February 17, 2021, available at https://www1.maine.gov/energy/sites/maine.gov.energy/files/inline-files/GEO_Maine_Renewable_Energy_Goals_Market_Assessment_February_Webinar_Slides.pdf.

³ U.S. Department of Energy, Levelized Costs of New Generation Resources in the Annual Energy Outlook 2023, https://www.eia.gov/outlooks/aeo/electricity_generation/pdf/AEO2023_LCOE_report.pdf.

Figure 3. Example of industry forecasts of renewable energy economics, including storage adders for wind and solar to achieve roughly equivalent reliability for comparison to dispatchable generation resources.⁴

Estimated Costs of Generation Resources Late-2020s⁽¹⁾

(\$/MWh)



Even with \$3/MMBtu gas prices, we believe near-firm wind and solar will remain the lowest-cost option for new generation in the late-2020s

- 1) NextEra Energy Resources' estimate, based on current law (i.e. including the expected impacts of the IRA)
- 2) Near-firm assumes a 4-hour battery to achieve roughly equivalent reliability during peak hours for comparison with dispatchable generation sources
- 3) Represents all-in cash operating cost per MWh including fuel and ongoing capital expenditures
- 4) Range assumes \$3/MMBtu gas prices
- 5) Reflects modest CO2 cost consistent with existing state and regional CO2 policies and IOU planning conventions



⁴ Nextera Energy Partners, May Investor Presentation, May 8, 2023, available at https://www.investor.nexteraenergy.com/~/_media/Files/N/NEE-IR/news-and-events/events-and-presentations/2023/05-08-23/May_Investor_Presentation_vFinal.pdf.