

**Maine State Legislature
Committee on Energy, Utilities and Technology**

NEPGA Testimony

LD 1350, An Act to Expand Maine's Clean Energy Economy

April 20, 2021

The New England Power Generators Association (NEPGA)¹ appreciates the opportunity to provide written testimony on LD 1350, *An Act to Expand Maine's Clean Energy Economy*. NEPGA respectfully opposes LD 1350 because it further guarantees market-share to chosen technologies, undermining opportunities to cost-effectively meet Maine's energy and climate needs. Instead, NEPGA urges the Committee to allow Maine and other regional stakeholders to continue efforts toward wholesale electricity market reforms to meet Maine's climate and clean energy mandates.

NEPGA is the trade association that represents competitive electric generating companies in New England. NEPGA's member companies account for over 90% of all generating capacity throughout New England – and over 2,400 MW in Maine. NEPGA companies provide thousands of well-paying, highly skilled jobs to the state's workforce, pay millions of dollars in taxes to the state and its cities and towns, and contribute millions of dollars in income taxes paid by employees.

The Competitive Wholesale Electricity Markets

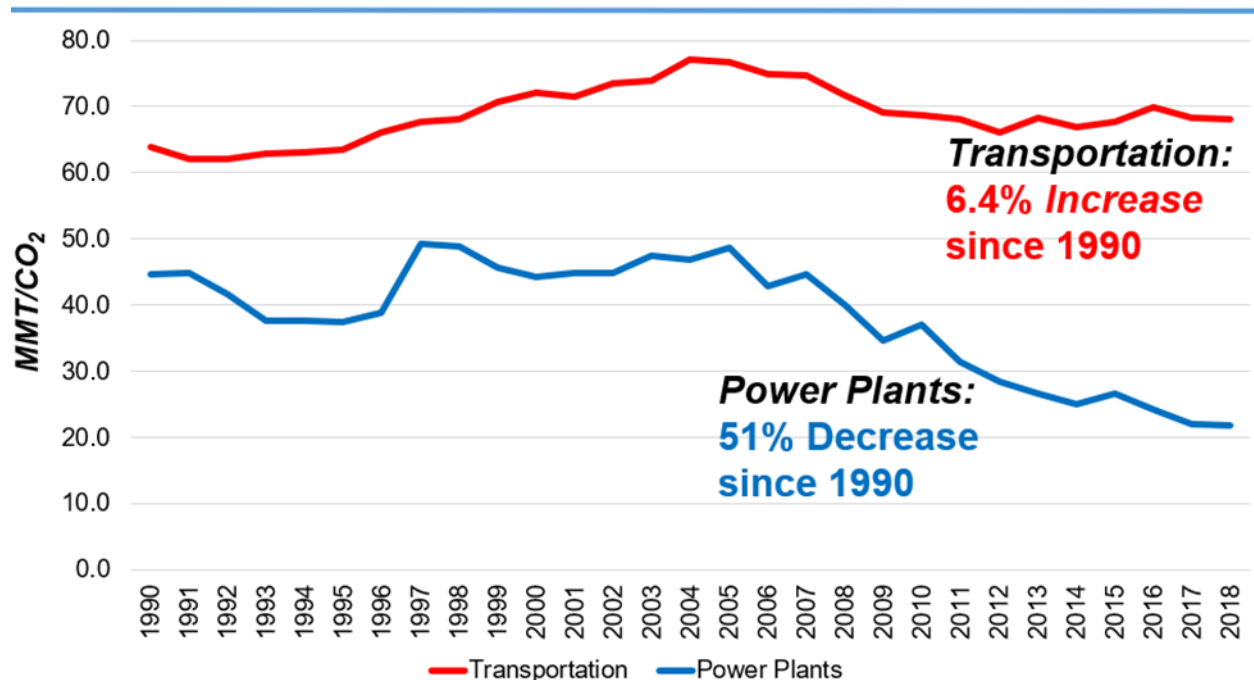
For more than 20 years, Maine has relied on the competitive markets to produce a reliable supply of electricity at least cost. Market forces drive innovation and efficiencies, providing not only value to Maine consumers, but also critical support to the state's economy. Since 2004, wholesale energy prices have declined by a remarkable 51%. That means that a dollar spent on electricity supply in 2004 costs only 49 cents today. In fact, the average annual wholesale electricity price in 2019 was \$30.67/MWh, the second lowest price since full implementation of the region's competitive markets in 2003.² While other portions of a typical Maine electric customer's utility bill have increased over the years, wholesale energy price reductions have translated to real savings for Maine consumers.

¹ The comments expressed herein represent those of NEPGA as an organization, but not necessarily those of any particular member.

² <https://isonewswire.com/2020/03/18/new-englands-wholesale-energy-market-reaches-historic-low-in-2019/>

Market-driven efficiencies have also helped cut carbon dioxide (CO₂) emissions in Maine and in the other New England states, resulting in a cleaner, more efficient fleet of generating resources. Since 1990, CO₂ emissions from power plants in New England have dropped by more than 50%.³ By comparison, CO₂ emissions from transportation across the region have actually increased over that same period. Since 1999, the efficiency for power plants in New England improved by 22%, roughly the equivalent of needing just four power plants today to provide the same amount of electricity output as five plants roughly 20 years ago. In 2000, 40% of the electricity produced in New England was generated from coal and oil resources; today, coal and oil plants together account for less than 1% of the region's resource mix.⁴

New England transportation & power plant CO₂ emissions from 1990 to 2018



Aligning the Competitive Markets with Maine's Laws and Policies

LD 1350 seeks to add substantially more renewables through additional procurements under ratepayer-supported long-term contracts. However, Maine and the other New England states are already poised to add unprecedented amounts of renewable resources through long-term contracting and other state mechanisms over the next several years. Analysis conducted in 2018 found that state-supported resources are on track to comprise over 50% of the region's generation mix by 2027.⁵ That amount is

³ <http://www.eia.gov/environment/emissions/state/>, released March 2, 2021.

⁴ <https://www.iso-ne.com/about/key-stats/resource-mix>

⁵ <https://nepga.org/2018/11/report-on-new-england-electricity-market-out-to-2027/>

clearly understated with the enactment of legislation over the intervening years to procure additional clean energy resources.

Rather than continue on the path of subsidies, leading to market carveouts, leading to more subsidies, the goal should be to design the next generation of the wholesale electricity market. A market that maintains the cost and reliability benefits of the competitive markets but meaningfully accounts for the carbon intensity of a given resource – an element that is currently missing from today’s wholesale markets. This future market design must continue to prioritize reliability by recognizing the value of different fast, flexible resources that can address peak demand and balance the system, especially as more weather-dependent renewables, like wind and solar, enter the system.

Recent studies examining the changing energy landscape in New England confirm the need to preserve reliability services as the regional system evolves to include more weather-dependent resources. A report from Energy + Environmental Economics (E3) and Energy Futures Initiative (EFI), led by former U.S. Secretary of Energy Ernest Moniz, finds that current New England states’ laws to decarbonize across the economy will require “the addition of large amounts of wind, solar, and battery storage resources, complemented by firm capacity to provide generation during extended periods of low wind and solar availability. Firm capacity includes natural gas power plants, nuclear, hydrogen generation, or other yet-to-be commercialized options such as long-duration storage.”⁶

A Massachusetts report issued in December focused on deep decarbonization of the power sector across New England driven mainly by the installation of roughly 15 and 20 gigawatts each of land-based solar PV and offshore wind over the next 30 years.⁷ As the report notes, that level of renewables penetration will require regional reliability services to support the system in those hours when solar and wind resources are not operational. The report finds that large-scale renewables should be complemented by long-duration reliability resources capable of providing power when weather conditions cause reduced output from renewables. Given the region’s anticipated reliance on large increases in renewable resources, such as offshore and onshore wind, solar, and short-duration battery storage, the report recommends a variety of dispatchable generation that can fill operational gaps through 2050. As the report explains, “Renewable resources such as wind and solar power must be complemented by a range of resources both on the demand-side and on the supply-side, due to their inherent variability and in order to ensure the reliability of the electricity grid in every hour of the year.” Those reliability resources could include fast-ramping and cost-effective natural gas plants, hydroelectric generation, and many other new and existing technologies.

⁶https://static1.squarespace.com/static/58ec123cb3db2bd94e057628/t/5fd2997d26324029a116f9b4/1607637387632/E3+EFI_Report+New+England+Reliability+Under+Deep+Decarbonization_Full+Report_November_2020.pdf

⁷ <https://www.mass.gov/doc/ma-2050-decarbonization-roadmap/download>

Given these complexities, Maine's energy and decarbonization objectives cannot and should not be met by a single-state, out-of-market solution. As Gov. Mills stated in a letter with other New England Governors,⁸ there is a need to pursue an improved regional wholesale electricity market. NEPGA and other stakeholders are now actively working on developing that type of a long-term solution to help Maine and the other New England states meet their energy and climate-related obligations. This is happening through many forums, including the state-led New England Energy Vision process, which began earlier this year.⁹ These ongoing regional forums are focused on designing a wholesale market that can leverage the cost and reliability benefits of the competitive markets while also addressing the clean energy and decarbonization objectives of LD 1350.

The focus must also be on linking electricity with other sectors of the economy, in part because electrification holds such promise for decarbonization in transportation and heating. Transportation and heating in fact make up the bulk of Maine's emissions today. Drastic emissions reductions must be made in those sectors to achieve current greenhouse gas emissions targets. To meet this challenge in a harmonized manner, NEPGA has long advocated for a multi-sector carbon price, one that not only addresses power sector emissions, but also those from the transportation and buildings. There may be other market-based solutions for meeting Maine's climate mandates, and NEPGA is committed to playing a constructive role in state and regional discussions for the best one that meets those needs.

The unfortunate alternative is continued reliance on single-state solutions – like that proposed by LD 1350. That approach addresses only one source of the state's overall emissions and imposes additional costs and risks on Maine's ratepayers. Mandates such as these carve up the competitive markets, displacing opportunities for competitive resources to help Maine meet its decarbonization goals reliably and at the least cost. Long-term contracting also exposes Maine's ratepayers to the risk of paying for investments that, in hindsight, may prove costly or unnecessary. The path forward is a challenging one, but there is an opportunity to chart a future that maintains the benefits of the competitive markets coupled with the promise of future innovations and enhancements to Maine's clean energy economy.

As the Committee reviews LD 1350, NEPGA recommends that it give current regional efforts an opportunity to develop a wholesale market design that can help Maine implement its clean energy and decarbonization mandates. NEPGA remains committed to working with Maine and others to develop a solution that harnesses the competitive markets to attract investment in clean energy resources, further reduce CO₂ emissions, and maintain system reliability, all at competitive market pricing.

NEPGA thanks the Committee for the opportunity to offer its perspective and stands ready to provide additional information and assistance as needed.

⁸ http://nescoe.com/wp-content/uploads/2020/10/Electricity_System_Reform_GovStatement_14Oct2020.pdf

⁹ <https://newenglandenergyvision.com/>