



**Massachusetts General Court
Joint Committee on Telecommunications, Utilities and Energy**

**Testimony on H.3288; H.3292; H.3372; H.3964; S.2131; S.2133; S.2136; S.2170;
S.2224; S.2225; S.2228; and S.2229**

December 14, 2021

The New England Power Generators Association (NEPGA)¹ appreciates the opportunity to provide written testimony on the above-referenced bills. NEPGA supports the legislation's overarching decarbonization goals and recognizes the need to transition to cleaner sources of energy over time. Mandating a 100% clean electricity requirement, however, would have profound implications for power system reliability and is inconsistent with analyses such as the Massachusetts 2050 Decarbonization Roadmap that find that the Commonwealth will continue to need a range of dispatchable resources under a net-zero carbon scenario. NEPGA seeks to partner with the Commonwealth to chart a better course, one that relies on market-based solutions to reduce greenhouse gas (GHG) emissions and enables the energy technologies of the future while maintaining reliability.

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 – with over 8,000 MW in Massachusetts – and own and operate over 7,500 MW of renewable and zero-carbon resources throughout the region. NEPGA companies provide well-paying, highly skilled jobs to the Massachusetts workforce, pay millions of dollars in taxes to the Commonwealth and its cities and towns, and millions of dollars more in income taxes paid by employees.

The Competitive Wholesale Electricity Markets

Massachusetts passed its restructuring act more than 20 years ago primarily in response to high electricity supply costs and the inefficiencies of a cost-of-service model that placed the risk of capital investments on the shoulders of utility ratepayers. Restructuring would establish a competitive marketplace where private investors could rely on transparent price signals to guide investments in more cost-effective, reliable, and efficient electric generating facilities.

Restructuring has delivered on those objectives with remarkable success. Since 2014, wholesale energy prices in New England have declined by 66%. The average annual

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

wholesale electricity price in 2020 was \$23.37/MWh, the lowest price since full implementation of the region's competitive markets in 2003.²

The competitive markets have also ensured firm, reliable electricity supplies three years in the future with 9,627 MW of new generation capacity developed at historically low prices.³ The most recent Forward Capacity Auction (FCA) yielded 950 MW of increased generation investments and nearly 600 MW of new energy storage resources. The competitive markets accomplish this through efficient price signals and without exposing the Commonwealth's consumers to the risk of cost overruns or poor investment choices.

Market competition has also helped reduce GHG emissions in Massachusetts and in the other New England states, resulting in a cleaner, more efficient fleet of generating resources. Since 1990, power plants in Massachusetts have cut carbon dioxide (CO₂) emissions by 70% – the most of any sector of the economy over the same period – according to data released by the U.S. Energy Information Agency.⁴ Regional CO₂ emissions from power plants have been cut by 50% driven in part by a 22% efficiency improvement in New England power plant since 1999 – roughly the equivalent of requiring just four power plants today to provide the same amount of electricity output as five plants around 20 years ago.

Market Investments to Meet Massachusetts' Needs

A lot has changed since restructuring and the formation of the region's competitive wholesale electricity markets. Massachusetts (and most other states in New England) has enacted laws requiring substantial GHG emissions reductions along with mandated procurements of specific renewable resources through long-term contracting. Given these mandates, NEPGA and other stakeholders continue to work on developing market-based solutions to meet Massachusetts' and other New England states' energy and environmental needs, rather than continuing a reliance on ratepayer-supported long-term contracts. The right solution will leverage the power of the competitive markets to accelerate and rapidly scale additional clean technology investments, delivering a decarbonized power grid faster and more cost-effectively, while maintaining reliability.

Many of the above-referenced bills only target electric sector emissions or propose single-state, out-of-market approaches to reduce GHG emissions. To fully meet the economy-wide mandates of the 2021 Climate Act and other laws, Massachusetts must address emissions on a broader scale. NEPGA has long advocated for a multi-sector carbon price to not only reduce power sector emissions, but also emissions from transportation and building sources that together make up the largest share of GHG emissions in the Commonwealth. A meaningful carbon price would not only accelerate decarbonization, but it would also provide market participants with the signal they need

² https://www.iso-ne.com/static-assets/documents/2021/03/new_england_power_grid_regional_profile.pdf

³ <https://www.iso-ne.com/about/key-stats/markets#fcaresults>

⁴ <https://www.eia.gov/environment/emissions/state/>, released March 2, 2021.

to make investments in clean technologies. A carbon price should also be implemented on a regional basis, consistent with the regional nature of New England's bulk power system. NEPGA recognizes that Massachusetts may prefer other market-based solutions for meeting its climate mandates. As the Commonwealth and other stakeholders consider market design options, NEPGA pledges to play a constructive role in state and regional discussions to identify the market tools that best meets those needs.

NEPGA members stand ready to deploy the billions of dollars of capital investments necessary to deliver the next generation of electricity supplies. NEPGA companies are primed to do so as they are actively investing today to build, acquire, and maintain scores of clean energy projects. In fact, NEPGA members own the vast majority of renewables operating today in New England. NEPGA is committed to fostering a competitive marketplace that delivers an evermore efficient and decarbonized grid at the lowest possible cost to consumers. Leveraging the power of the competitive markets, we can accelerate and rapidly scale additional clean technology investments, delivering a decarbonized power grid faster and more cost-effectively.

Ensuring Reliability in an Evolving Resource Mix

As New England's resource mix evolves to include more renewable resources and other clean energy technologies, all energy stakeholders – state, regional, and federal decisionmakers; generators; and utilities – must redouble their efforts to balance decarbonization with reliability. As events in Texas and California demonstrate, we cannot take reliability for granted or minimize its importance in the service of other policies. Gaps in reliability could pose real risks to human life and health as well as significant impacts to the economy.

Electrification of transportation, heating, and other sectors of the economy is occurring today and provides an efficient pathway towards economy-wide decarbonization. This will create a deeper connection between electricity and virtually every aspect of the Massachusetts economy and way of life. In such an interconnected system, the focus on electric reliability becomes even more important. With this in mind, NEPGA believes it is even more critical that the Commonwealth strike the right balance between enabling resources that will be needed to achieve energy and climate mandates and safeguarding system reliability.

For these reasons, NEPGA urges the Committee to reconsider legislation to achieve 100% clean electricity within the next 10 to 15 years because it could unintentionally leave the Commonwealth vulnerable to reliability gaps. Such policies do not fully consider the unique characteristics and limitations of clean energy resources, particularly intermittent wind and solar generation and two-hour battery storage systems. While these technologies will play a crucial role in decarbonizing the power system, a future market design must also value flexible and firm technologies that can ensure reliable operations regardless of weather or system conditions. Such existing

technologies include pumped storage hydro, pondage hydro, natural gas power plants, nuclear, and hydrogen generation.”⁵

The Massachusetts 2050 Decarbonization Roadmap underscores the need for reliability resources that can complement a regional system that is expected to add around 15 and 20 GW each of land-based solar PV and offshore wind over the next 30 years.⁶ As the report explains, that level of large-scale renewables deployment will require long-duration reliability services to support the system in those hours when solar and wind resources are not operational. Given the region’s expected reliance on 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. Those reliability resources could include fast-ramping and cost-effective natural gas plants, hydroelectric generation, and many other new and existing technologies.

Conclusion

NEPGA’s members have shown an ability to invest billions of dollars in the region’s wholesale electricity markets to deliver a reliable supply of electricity at competitive market prices. NEPGA now stands ready to work with the Committee on the next chapter of the region’s competitive markets – one that aligns with the Commonwealth’s climate and clean energy mandates while keeping reliability at the forefront. NEPGA thanks the Committee for the opportunity to provide this testimony.

Respectfully,



Dan Collins
Director of Government Affairs

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⁶ <https://www.mass.gov/doc/ma-2050-decarbonization-roadmap/download>