

Massachusetts General Court Joint Committee on Telecommunications, Utilities and Energy

Testimony on H.3266; H.3302; H.3310; H.3314; H.3315; H.3316; S.2154; S.2155; S.2158; S.2223; and S.2227

July 23, 2021

The New England Power Generators Association (NEPGA)¹ appreciates the opportunity to provide written testimony on the above-referenced bills. NEPGA fully supports Massachusetts' goal of addressing climate change and recognizes the urgency of achieving the greenhouse gas (GHG) emissions reduction mandates contained in the 2021 Climate Act. However, NEPGA opposes additional procurements of certain resources through long-term contracting and other state programs that undermine the region's competitive wholesale electricity markets, as most of the above-referenced bills propose. Instead, NEPGA urges the Committee to allow current efforts to identify new wholesale market designs, such as those that could be contemplated under H.3316, to bear fruit so that Massachusetts can efficiently and cost-effectively meet its decarbonization mandates and grow its clean energy economy.

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

For more than 20 years, Massachusetts 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 considerable value to the Commonwealth's consumers, but also critical support to Massachusetts' economy. Since 2014, wholesale energy prices in New England have declined by 66%. In fact, the average annual wholesale electricity price in 2020 was \$23.37/MWh, the lowest price since full implementation of the region's competitive markets in 2003 (calculated in 2020 dollars).² While other portions of a typical Massachusetts electric customer's utility bill have increased over the years, wholesale energy price reductions have translated to real savings for the Commonwealths' consumers.³

³ By comparison, New England transmission rates have increased by over 650% since 2004. <u>https://www.iso-ne.com/markets-operations/settlements/tariff-rates</u>

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

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



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The competitive markets have also ensured sufficient electricity supplies to meet future demand needs with 9,627 MW of new generation capacity developed at historically low prices.⁴ The most recent Forward Capacity Auction (FCA) yielded 950 MW of increased generation investments and nearly 600 MW of new energy storage resources. These investments are the result of market price signals that incentivize investment in facilities – both new and existing – where and when they are needed, ensuring the region will have firm, reliable energy in future years. The competitive markets accomplish this without exposing the Commonwealth's consumers to the risk of cost overruns or poor investment choices.

Market competition has also helped cut 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 decreased carbon (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.⁵ Similar numbers are seen across New England where CO₂ emissions have been cut by 50% in power

⁴ <u>https://www.iso-ne.com/about/key-stats/markets#fcaresults</u>

⁵ <u>https://www.eia.gov/environment/emissions/state/</u>, released March 2, 2021.

plants. The efficiency for power plants in New England has improved by 22% since 1999 – roughly the equivalent of requiring 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.⁶



Aligning the Competitive Markets with Massachusetts' Laws and Policies

Massachusetts and the other New England states are poised to add unprecedented amounts of renewable resources through long-term contracting and other state programs 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 – an amount that is clearly understated given recent legislation requiring more out-of-market procurements. In Massachusetts alone, the additional offshore wind solicitations required under the 2021 Climate Act will bring the total offshore wind procurement authorized under law to 5,600 MW.

These state-supported resources impact the region's competitive wholesale electricity markets in two ways. First, the introduction of state-supported resources will displace existing merchant ones, including those that will be needed for their unique reliability aspects as well as those that are cost-effectively meeting the Commonwealth's decarbonization goals today. Second, because state-supported resources receive

⁶ <u>https://www.iso-ne.com/about/key-stats/resource-mix</u>

revenue outside the market, they will likely bid into the Energy Market as price takers (i.e., at \$0/MWh), putting downward pressure on the Energy Market prices that merchant generators rely upon to continue operations and make capital investments in existing facilities. These resources operate in the market without revenue or cost guarantees and without consumer-backed long-term contracts, leaving them reliant on a fair and competitive market. Price suppression in the market has very real consequences for the viability of these facilities to continue to reliably supply Massachusetts and the region with electricity and to enable a decarbonized future.

Rather than continue on a path of subsidies, as most of the above-referenced bills propose, the goal should be to design the next generation of the region's 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."⁷

The Massachusetts 2050 Decarbonization Roadmap anticipates deep decarbonization of the power sector across New England driven largely by the installation of roughly 15 and 20 GW each of land-based solar PV and offshore wind over the next 30 years.⁸ As the report notes, that level of large-scale renewables deployment will require longduration 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 than 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

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https://static1.squarespace.com/static/58ec123cb3db2bd94e057628/t/5fd2997d26324029a116f9b4/1607 637387632/E3+EFI_Report+New+England+Reliability+Under+Deep+Decarbonization_Full+Report_Nove mber_2020.pdf

⁸ https://www.mass.gov/doc/ma-2050-decarbonization-roadmap/download

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.

Given these complexities, Massachusetts' energy and decarbonization objectives cannot and should not be met by a single-state, out-of-market solution. NEPGA and other stakeholders are now actively working on developing a long-term solution to help Massachusetts and the other New England states meet their energy and climate-related obligations, 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 underlying the above-referenced bills.

For these reasons, NEPGA supports the concepts of H.3316, which would direct the Secretary of Energy and Environmental Affairs to investigate the use of regional or multi-state competitive market mechanisms to finance the development of large-scale renewable resources and drive down CO₂ emissions. Working regionally to develop market-based mechanisms to achieve state environmental objectives can help continue the remarkable benefits of the wholesale electricity markets over the last 20 years, while addressing the critical decarbonization challenges that lie ahead. NEPGA appreciates the intent to move beyond the existing blunt instrument of resource-specific long-term contracts, towards the sustainable market structure that underlies H.3316.

To achieve the substantial carbon emissions reductions needed to meet the 2021 Climate Act's targets, the Commonwealth must also take a holistic approach that links economic sectors and supports broad electrification of transportation and buildings, which make up the bulk of Massachusetts emissions today. 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 Massachusetts' climate mandates, and NEPGA is committed to playing a constructive role in state and regional discussions for the one that best meets those needs.

The alternative is continued reliance on single-state solutions that address only one source of the state's overall emissions and impose additional costs and risks on Massachusetts' ratepayers. Mandates such as long-term contracting of renewables and RPS increases carve up the wholesale markets, displacing opportunities for competitive resources to help Massachusetts meet its decarbonization goals reliably and at the least cost. Long-term contracting also exposes Massachusetts ratepayers to the risk of paying for investments that may appear innovative and cost-effective today but could prove outdated, inefficient, and costly in the future. The path forward is a challenging one, but there is an opportunity to chart a course that maintains the benefits of the competitive markets coupled with the promise of future innovations and enhancements to Massachusetts' clean energy economy.

⁹ <u>https://newenglandenergyvision.com/</u>

Conclusion

As the Committee reviews these bills, NEPGA asks that it give current regional efforts an opportunity to develop a wholesale market design that can help Massachusetts implement its clean energy and decarbonization mandates, rather than committing ratepayers to back costly long-term contracts and other programs. NEPGA remains committed to working with Massachusetts 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 stands by to provide the Committee with more information as needed. Thank you for the opportunity to provide this testimony.

Respectfully,

Dan Collins Director of Government Affairs