



Comments on Connecticut's Draft 2017 Comprehensive Energy Strategy

The New England Power Generators Association (NEPGA)¹ appreciates the opportunity to comment on the draft 2017 Comprehensive Energy Strategy (CES) issued by the Connecticut Department of Energy and Environmental Protection (DEEP) on July 26, 2017. The draft CES offers an important opportunity for Connecticut to review its current energy situation and plot a strategic path forward informed by recent history and expectations to come. In the principles laid out in the draft, it is clear that Connecticut will be guided by maintaining a cost competitive environment while meeting the state's environmental emissions mandates. NEPGA applauds DEEP for recognizing that to do so requires a comprehensive approach across sectors such as electric power, buildings and transportation.

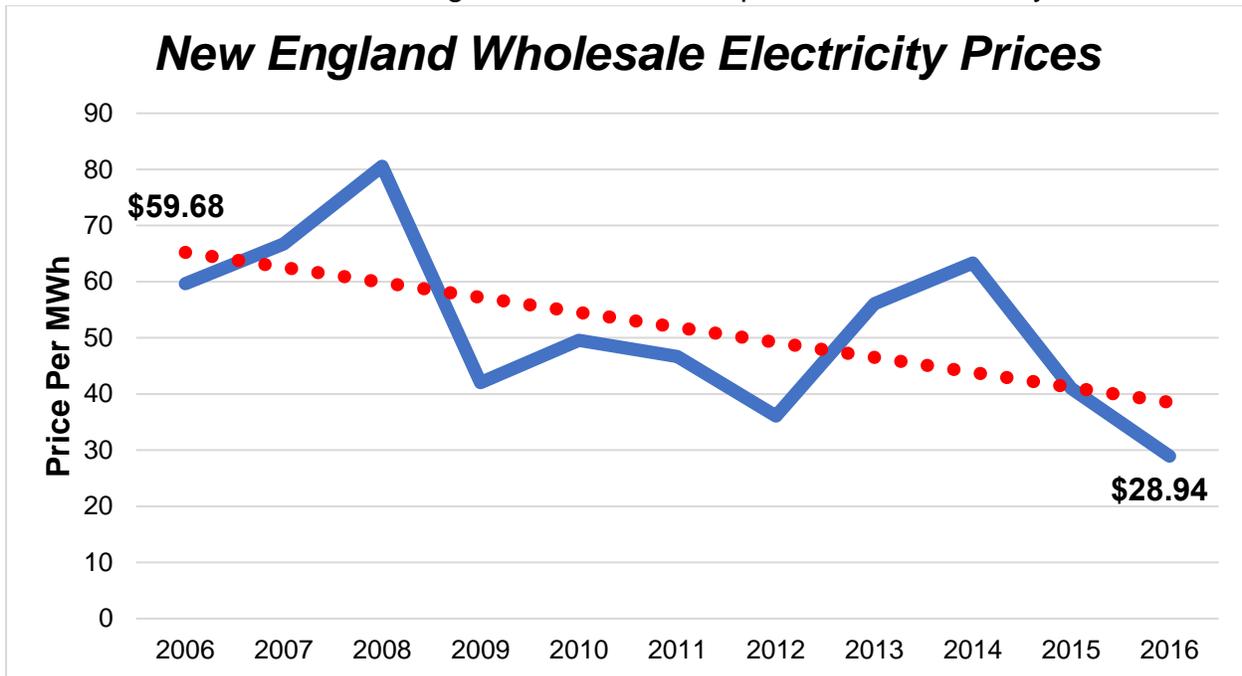
NEPGA is the trade association representing competitive electric generating companies in New England. NEPGA's member companies operate approximately 26,000 megawatts (MW), or 80% of all generating capacity in the region. In Connecticut, NEPGA represents over 7,000 MW, accounting for the vast majority of the state's electric generating capacity. These facilities provide more than 1,700 skilled manufacturing jobs in Connecticut and account for nearly \$100 million in state and local taxes annually. NEPGA's mission is to support competitive wholesale electricity markets in New England. We believe that open markets guided by stable public policies are the best means to provide reliable and competitively-priced electricity for consumers. A sensible, market-based approach furthers economic development, jobs and balanced environmental policy for the region.

Benefits of a Competitive Electricity Market

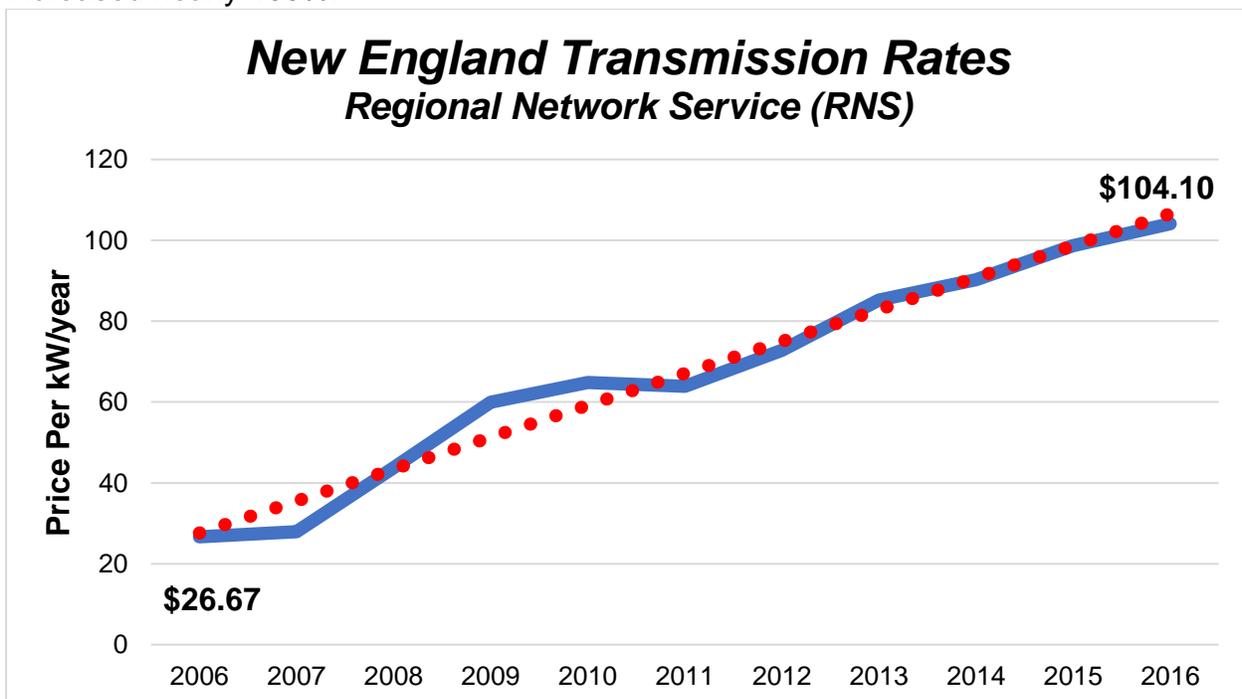
In 1998, Connecticut passed *An Act Concerning Electric Restructuring* (Public Act No. 98-28), which created competition for electricity supply in the state. In the nearly 20 years since, competitive generators have invested tens of billions of dollars in Connecticut and across New England for the opportunity to compete in the marketplace. These generators provide competitively-priced, reliable and environmentally responsible electricity for consumers without guaranteed cost recovery or returns. Instead, generators today make significant investment decisions based on whether they will have an opportunity to compete against all others to recover their costs.

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

The results of the state's restructuring of its electricity industry are remarkable. In the last ten years wholesale electricity prices – the prices coming out of the power plants themselves and sold into the region's central marketplace – have fallen by over 50%.²



Over that same time, however, the cost of large-scale transmission in New England has increased nearly 400%.³

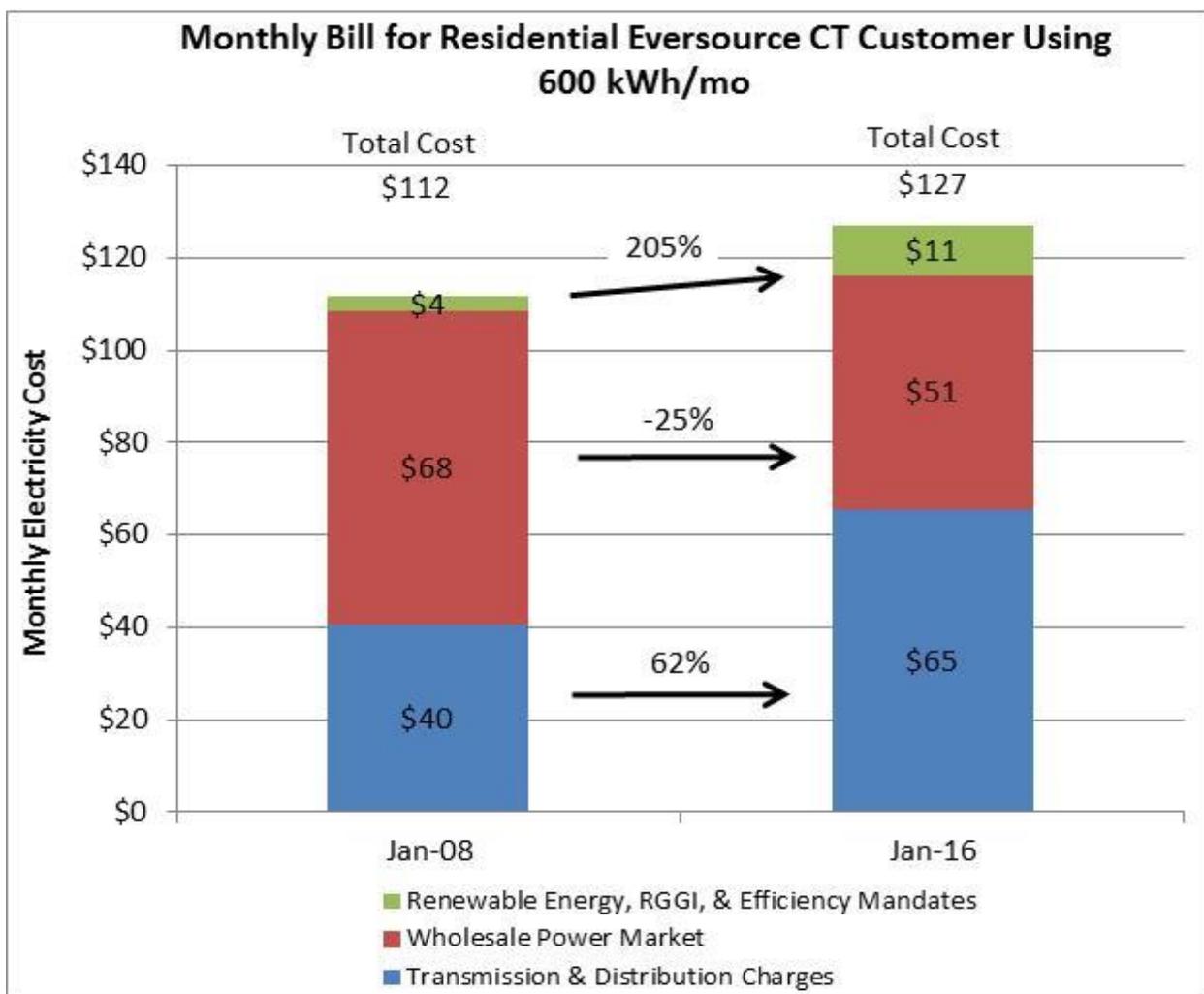


² https://www.iso-ne.com/static-assets/documents/2017/02/20170227_pr_2016_price_release.pdf

³ <https://www.iso-ne.com/static-assets/documents/2015/12/section2-rate-summary.xls>

2016 was in fact the lowest average wholesale electricity price year since at least 2003. Not only did this beat the previous record (\$36.09/MWh in 2012) but it was 20% below the prior record price. Beyond the absolute figures, it is worth noting that PJM also saw its lowest wholesale electricity prices in 2016 (\$28.78/MWh).⁴ With both New England and PJM hitting record low prices in the same year, there was only a \$.16/MWh difference. While there are structural, policy, economic and market-design differences between New England and PJM, which may explain price differences between the regions, the price convergence seen in 2016 is notable.

This has in turn translated into dramatic changes in retail rates for consumers. Whereas wholesale electricity costs have dropped by 25% on an average residential consumer's bill, their total retail electricity cost has increased by 22%. This has also led to a dynamic in which wholesale electricity costs had historically made up roughly 60% of a residential consumer's bill, but they now account for just 40%.



⁴ 2016 State of the Market Report for PJM," Monitoring Analytics, March 9, 2017. http://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2016.shtml

At the same time as intense competition is occurring in the wholesale energy market, generators are making investments to competitively replace retiring resources. 4,200 MW of generation capacity in New England has either retired or announced an intent to retire in the next several years. In response, 4,120 MW of new generating capacity has been selected in the five most recent Forward Capacity Auctions to come online by June 1, 2020. These investments represent roughly 15% of New England peak demand and are being made without state guarantees or subsidies.⁵ Nearly 1,400 MW of that total will be in Connecticut representing over 1,000 construction jobs and well over \$1 billion in local investments.

To the degree additional plant retirements are announced, over 13,000 MW of additional plants are currently in the ISO New England interconnection queue. While only a fraction of those 13,000 MW is likely to be needed, it shows the interest and ability of the competitive marketplace to make the investments necessary to support reliability and competitive pricing for Connecticut and New England.

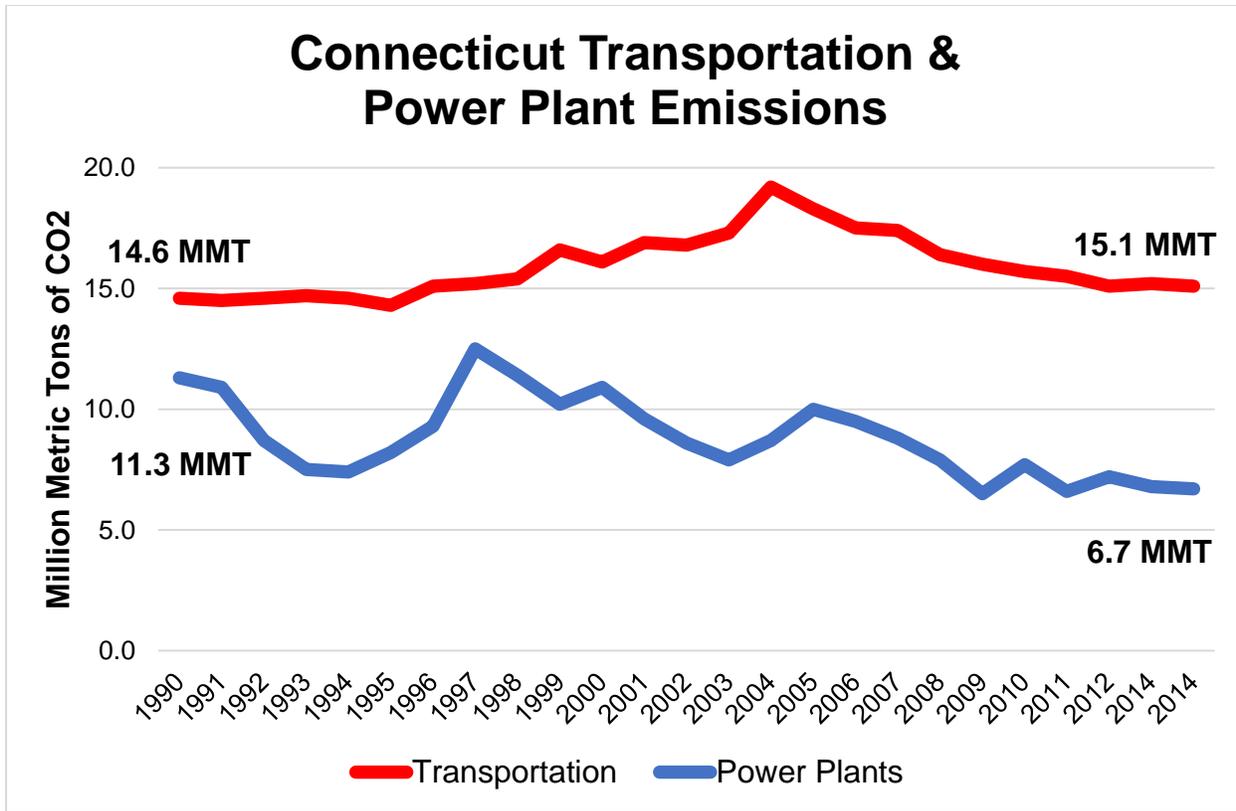
Clearly some of the investments in state and federally regulated transmission and distribution networks are necessary and appropriate. Similarly, a number of public policy programs provide net benefits for consumers, increase efficiency and improve environmental performance. NEPGA provides this background and information, however, because understanding what is driving consumer costs and the impacts of competition in the wholesale electricity market is key to plotting a path forward for Connecticut. The competitive electricity market in Connecticut is providing tremendous benefits to consumers. Far from any perceived “crisis,” the market is driving historically low wholesale electricity prices while providing billions of dollars in investments to meet ever-increasing performance and reliability requirements. But, as will be discussed further below, these investments should not be taken for granted with policies that have the potential to undermine the progress made over the last 20 years.

Climate Change and Carbon Dioxide Emissions

The draft CES focuses substantial attention on developing an “energy policy that advances climate goals.” NEPGA supports efforts by states, like Connecticut, to meet their carbon dioxide (CO₂) emissions mandates. NEPGA believes the best way to do so is through a regional, economy-wide approach to value CO₂ emissions, which will provide incentives for all market participants to find the most cost-effective means to reduce emissions. In this regard, NEPGA appreciates in the draft CES that the electric power sector represents only 22% of the state’s CO₂ emissions. Power generators in Connecticut have actually reduced their CO₂ emissions by over 40% since 1990; far more than any other sector of the economy.⁶

⁵ 28,130 MW of demand on August 6, 2006. <https://iso-ne.com/about/key-stats/electricity-use>

⁶ <https://www.eia.gov/environment/emissions/state/>



Concurrently, emissions from the transportation sector have actually gone up. NEPGA appreciates the efforts to develop an Electric Vehicle Roadmap and working regionally to improve the transportation network. It should also be noted that integrating a substantial electric vehicle fleet will require close coordination with those that supply the actual electricity. NEPGA offers its expertise to DEEP and others to ensure as smooth a transition as possible.

As DEEP recognizes, meeting the economy wide emissions standards cannot be done through the electricity sector alone. Given the substantial leadership that power generators have already provided on emissions cuts, NEPGA encourages DEEP to expand its focus to ensure that other sectors are making their contributions as well.

Path Forward

The path forward starts with a clear set of interim objectives or targets necessary to reach the state 2050 emission target. NEPGA supports the work of the Governor’s Council on Climate Change to establish such goals and to recommend policies necessary to achieve those goals. NEPGA believes the significant progress the power sector has made to date to reduce CO2 emissions must be taken into account as policies are developed to ensure the fair, equitable and efficient distribution of the efforts necessary to achieve deep reductions.

NEPGA supports the use of market-based mechanisms as the primary approach to meeting state reduction targets and improved environmental performance. Our members stand ready to work with DEEP and other stakeholders to achieve emissions mandates in a market-based, cost-effective, equitable and reliable manner. If the goal, as laid out in the draft CES, is to meet the statutory emissions reductions, the best and most competitive way to do so is to set a transparent price on CO₂ and allow all market participants to provide the most efficient and cost-effective product as possible. Such an effort would accelerate investments in those resources that are best able to meet CO₂ standards, without prejudging technologies or blocking-out innovative approaches. This strategy would preserve economic competitiveness for Connecticut households and businesses while fostering an environment of innovation.

Economists have long noted that establishing an economy-wide valuation on CO₂ emissions provides the best framework to lead to long-term emissions reductions. Given the leadership and progress already made in the electricity sector, such a valuation should be primarily targeted at parts of the economy that are not currently covered, such as transportation and buildings. Any policies necessary to drive additional CO₂ reductions from the power sector must consider the regional nature of the New England power market and the existence of programs like the Regional Greenhouse Gas Initiative (RGGI), which has demonstrated the benefits of this type of a multi-state approach. In a regional market, like New England, it is important to ensure that such a valuation is reflected over as wide a footprint as possible and does not occur state-by-state. An economy-wide valuation administered more than just state-by-state can provide the most efficient, cost-effective and lowest cost way to meet Connecticut's emissions mandate.

In the meantime, Connecticut should not fall back to reliance on out-of-market actions that carve out large segments of the marketplace to resources and technologies. NEPGA believes that the wave of new, out-of-market resources beginning to crest in New England threatens the very viability of the competitive wholesale electricity market. These types of programs undermine the competitive market outcomes that have provided so many of the consumer benefits outlined above. Instead, actions taken and policies promulgated should work within the framework of a well-functioning wholesale electricity market. For those reasons, NEPGA strongly opposes recommendations to increase the Renewable Portfolio Standard and increasing (or "prioritizing") procurements for clean energy resources.

If the goal is to meet CO₂ emissions reductions, then the best way to do so is to put a meaningful price on the emissions. Picking winners and losers through these types of procurements upends the premise of restructuring by putting long-term obligations and risks back on consumers. It also undermines not only the existing investments in power plants in Connecticut, but the potential for future investments. In a marketplace in which a substantial share of resources receive state-backed, long-term guarantees, why would

a market-based resource owner put their capital at risk? Expanding procurements quickly leads to this unsustainable situation.

Moving forward, the only certainty is we don't know what the electricity grid will look like 5, 10 or 25 years in the future. It is appropriate to lay out policy goals for those time horizons, but administratively deciding on how those goals are met creates the potential for massive risks and stranded costs that will be borne by consumers. As has been seen over the last 20 years since restructuring began in Connecticut, the electric grid is constantly evolving. Over time, as technologies improve, new types of resources will be invested in and the grid will change in unexpected ways. NEPGA recommends that DEEP lay out its policy goals, allow the market to properly value those goals and allow for investments to be made to reach the appropriate conclusion. This is the best way to ensure reliability, drive price competition and continue to make emissions improvements.

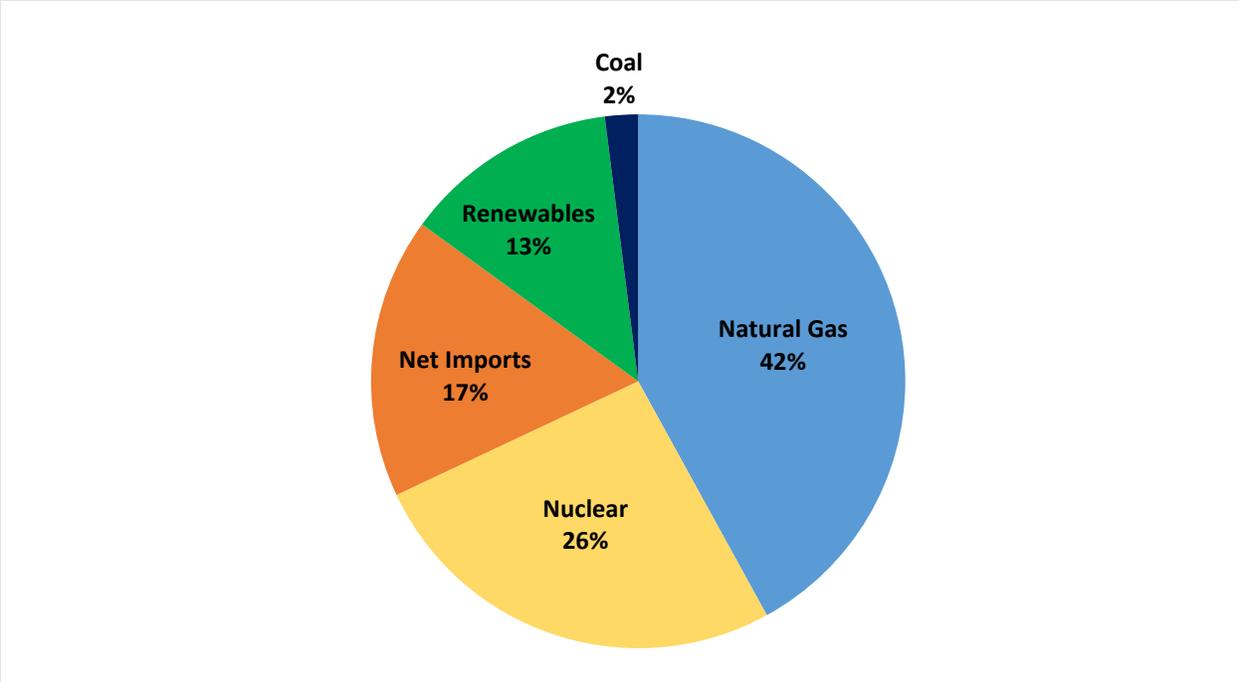
Winter Fuel Supply and Fuel Adequacy

Power generation fuel supply and reliability have been built into the New England wholesale electricity market and are the responsibility of resource owners in the region. This can be principally seen through the performance obligations in the Forward Capacity Market (FCM). Under the reformed FCM design, each plant in Connecticut and across New England is obligated to make the necessary fuel procurement arrangements to ensure that the resource can respond to ISO-NE dispatch instructions.

This is in addition to the other investments needed to ensure a plant's performance to preserve reliability. NEPGA members today are making those investments to meet their electric delivery obligations and have a strong track record delivering reliable service at competitive prices. As exemplified in the data highlighted above, the wholesale market is driving highly competitive electricity prices for consumers.

The power generation fleet behind that also remains a diverse and resilient one. In 2016, New England's electricity demand was met reliably, competitively and from one of the cleanest supply mixes in the country, as shown in the chart below.⁷

⁷ ISO New England Resource Mix - <https://www.iso-ne.com/isoexpress/web/reports/load-and-demand/-/tree/net-ener-peak-load>. Net imports are primarily from Quebec and New York interties. Oil, not listed, represented under .5% of electric demand.



Even as the generation fleet changes, the ability to reliably and competitively meet demand continues. The events of just this summer serve as a prime example. On May 31, 2017, the 1,500-MW Brayton Point Power Station, the second largest power plant in all of New England, was permanently shut down. Brayton Point was a coal and oil-fired facility. As shown above, despite a high nameplate capacity value, such facilities provided very few of the megawatt-hours in 2016. Nonetheless, the retirement of such a large facility attracted substantial media and policymaker attention.

On June 1, 2017, coincident with the FCA 8 Capacity Commitment Period, the 700-MW Footprint Power Station was scheduled to come online. Due to construction delays, that facility did not arrive as scheduled and has yet to come online. Even with this capacity deficiency, the wholesale electricity market has driven continued competitive prices and strong reliability the entire summer. In fact, June 2017 was the seventh lowest wholesale electricity month since 2003, with average prices of \$23.93/MWh despite higher than average cooling degree days.⁸ July's average prices of \$26.62/MWh⁹ followed suit and early anecdotal evidence for August show average summer prices having stayed well below \$30/MWh, even with less generating capacity than expected.

What all of this shows is that even in the face of a dramatically different electricity supply mix from when restructuring began 20 years ago, generators are providing reliable, cost-effective and ever cleaner generation for consumers. NEPGA does not

⁸ <http://isonewswire.com/updates/2017/7/21/monthly-wholesale-electricity-prices-and-demand-in-new-engla.html>

⁹ <http://isonewswire.com/updates/2017/8/30/wholesale-electricity-prices-and-demand-in-new-england-july.html>

see the need for out-of-market actions to increase natural gas supplies and we oppose efforts to do so because they would undermine the competitive market outcomes and the investments being made by generators. All while, once again, putting the costs and risks of those infrastructure investments back on consumers, in clear conflict with the intent of moving to a competitive, restructured electricity industry.

Conclusion

NEPGA appreciates the efforts by DEEP to develop a draft CES that examines the role of the various sectors key to meeting Connecticut's energy future. Our members recognize the key role that power generation plays in that and we are committed to continuing to lead the way. NEPGA members are doing so by ensuring competitive wholesale electricity prices, continued investments to support reliability and dramatic CO2 emissions reductions. NEPGA stands ready to continue building on this track record along with sectors such as transportation and buildings doing their share.

The cost, reliability and emissions benefits that have been seen the last 20 years, however, are not guaranteed to continue. NEPGA is gravely concerned that state policy actions threaten to undermine the competitive market that has driven the remarkable consumer benefits. NEPGA encourages Connecticut to focus on establishing clear goals, such as CO2 emission reductions, and then working regionally to appropriately reflect those policy priorities into the market, without picking winning and losing resources or technologies. This approach offers the most fair, competitive and lowest risk path for consumers while ensuring a leadership position for Connecticut on these important issues.