



NEPGA Responses to New Hampshire Public Utility Commission Staff Questions
Investigation into Potential Approaches to Mitigate Wholesale Electricity Prices,
Docket IR 15-124

1. *Page 2. NEPGA states that there are currently over 1,700 MW of new power plants that have been selected in the recent Forward Capacity Auctions (FCAs) and are expected to come online in the next several years. Please explain how these new power plants will mitigate the region's high winter period wholesale electricity prices.*

The new plant investments coming into New England ensure that sufficient electricity supplies will be available to meet consumer demand reliably in the winter months and throughout the year. These new plants have all cleared in the most recent capacity auctions (some having cleared in earlier auctions as well) and therefore will be subject to the Pay for Performance structure mandating performance whenever ISO New England calls on a plant to be dispatched. These are also not the last plants that are expected to be developed in the region over the next several years. New England is currently in a tight market as older resources retire and newer resources come on to the system. Power generation is an inherently “lumpy” industry in which a new 700 MW facility may be developed to meet a 150 MW need (as was seen in FCA 7 for the NEMA/Boston zone). This lumpiness creates an excess amount of generation that creates a stabilizing impact on prices for consumers with a long market.

The nature of the new resources that cleared in FCA 9 also will significantly contribute to price stability and efficiency. Three types of resources cleared: a dual-fuel generator; two peaker generators; and demand response. The highly efficient dual-fuel generator will be able to run on the lower cost fuel, mitigating price spikes due to tight natural gas conditions. The peaker units will most often operate when they are economic during peak load conditions in lieu of operating less efficient, higher priced resources. And demand response will curtail load during peak demand, likewise mitigating against high price spikes.

The 1,700 MW of new plants noted in NEPGA's comments by themselves are not a panacea, but they are an indication of a vibrant market response to invest in the region and take the region from its current period of supply/demand

tightness to a much more long scenario thereby mitigating some of the most intense price volatility experienced on a seasonal basis.

2. *Page 2. What percentage of the 16,000 MW of new resources which have provided expressions of interest for the 10th FCA will be fueled with natural gas? Also, what percentage of the gas-fired generators is likely to utilize firm transportation services to deliver the natural gas commodity?*

ISO New England does not publicly release information on individual resources that have begun the qualification process for forward capacity auctions. It is reasonable, however, to expect that as with the ISO generation interconnection queue, the vast majority of new resources exploring participation in the auction will be dual fueled natural gas and oil facilities. Similarly, there is no public information on what fuel arrangements any of these potential developments have made. But as with all existing resources, they will find the most cost effective way to meet the delivery requirements laid out in ISO New England market design, including in the Pay for Performance market where there are no excuses for non-performance. The significant penalties for non-performance due to, for example, a lack of fuel, will compel all resources assuming a Capacity Supply Obligation to firm up their fuel supplies. For many natural gas-fired resources options include using back-up oil, signing LNG contracts, firm off-take arrangements with pipelines as well as no-notice or other seasonal products developed by natural gas marketers. Notably, all generation resources, regardless of fuel or technology type, must abide by all state and federal environmental and emissions requirements, but this does not excuse a resource from responsiveness to ISO New England dispatch instructions. Therefore, each resource must find a way to both ensure its performance while meeting any air permit or run limits that exist for its units.

3. *Page 3. What percentage of the 842,000 Dth/day of firm pipeline capacity is subscribed to New England gas-fired generators? If the answer is zero, please explain how such incremental pipeline capacity will meaningfully benefit electricity consumers by reducing the winter basis differentials in New England.*

Public announcements of the 842,000 Dth/day capacity commitments show them to be entirely contracted by local distribution companies (LDCs). LDCs contract for natural gas to support their one day in 10 year design day capacity requirements and therefore have significant excess capacity throughout the vast majority of days. As such, a tremendous amount of new pipeline capacity will be available during the winter months. Some of this will be used for LDC customer home heating needs, but much of this will also be made available into the

capacity release market and therefore made available to other users, including power plants. As with any commodity market, with more supply to meet demand there will be a price response.

4. *Page 3. Is the new 10-year supply of LNG for the region expected to eliminate or substantially reduce the winter period natural gas basis differentials? If so, please explain how such reductions are likely to occur focusing in particular on how LNG commodity is priced in New England energy markets.*

As noted above, any incremental amount of natural gas supply delivered into the marketplace will drive a price response. LNG, like any other commodity, is driven by market prices and supply and demand fundamentals. Global LNG supplies and prices drove a substantial increase of imports into New England this past winter and NEPGA has posited that there are broader trends that may lead to continued LNG imports. Just this week, one financial analyst estimated that due to a combined slowdown in energy usage in Asian markets and an influx of LNG supply into the Global markets that LNG prices may fall an additional 5%.¹ Regardless, such supplies will only be purchased in the marketplace if they are more cost-effective than alternatives, including pipeline products.

5. *Page 4. Regarding the referenced electric transmission projects, is it NEPGA's position that each will substantially reduce winter period wholesale electricity prices in New England? If so, please: (i) explain in detail how these projects will lower LMPs for wholesale electricity customers; (ii) provide for each the estimated average winter period price reduction; and (iii) state whether NEPGA supports the development of such projects.*

NEPGA supports market-based energy infrastructure developed in response to market signals and developed without the need for state intervention or out-of-market subsidies. To the degree that merchant transmission projects are developed along these lines, they provide a market response that may compete with other alternatives, including local generation development. However, if such projects seek long-term contracts to subsidize their development, NEPGA believes that not only will they increase costs and risks for consumers but they may lead to the premature retirement of in-region generation – including non-natural gas plants. Such an outcome would have serious negative consequences for consumers and call into question whether other project developers would risk investing in a region where winners and losers are picked outside of a well-functioning competitive marketplace.

¹ “European Utilities: Downgrading generation and upstream names on LNG and coal oversupply risks” UBS Securities, July 13, 2015

6. *Page 5. Please identify the “critical wholesale electricity market improvements” made prior to the 2014/15 winter and comment on the impact each had in lowering winter prices.*

Important improvements such as a move to hourly offers in the Day-Ahead Energy Market, hourly re-offers in the Real-Time Energy Market, negative offers in the energy markets (as low as $-\$150/\text{MWh}$), increases in the reserve constraint penalty factors, and changes to the mitigation treatment of dual-fuel unit bids together will allow for improved price formation.. It is difficult to assign a particular value to any specific change, but collectively these improvements have lowered the amount of overall risk priced into the energy markets, and provided stronger incentives for lower-priced resources to operate during periods of low system demand. The lower risk has the corollary benefit of improving hedging arrangements and providing greater predictability of market outcomes. Overall, anything that lowers risk provides an environment for lower costs to be reflected for consumers. It is for these and other reasons that the Federal Energy Regulatory Commission has repeatedly recognized that energy market price formation improvement must be a top priority across the organized electricity markets nationally, and approved these several energy market changes within the last year.

7. *Page 5. Please expand on why NEPGA believes the power generation and fuel infrastructure projects currently under development will cause the intense price volatility to subside.*

As has been noted above, in discussion power generation, pipeline, LNG and transmission line developments will increase the supply of market-based infrastructure and provide an appropriate price response for consumers on the demand-side.

8. *Page 6. NEPGA asserts that subsidizing the competitors of oil, coal and nuclear facilities will lead to accelerated retirements with price and environmental impacts. Please document these price and environmental impacts.*

NEPGA has not undertaken an analysis of dispatch models in the absence of particular units. Nonetheless, it stands to reason that should any otherwise economic resource be forced to prematurely retire, consumers will pay. Likewise, to extent that nuclear units, the largest sources of carbon-free baseload electricity in New England, are forced to prematurely retire, that will lead to both more expensive units replacing their capacity and almost assuredly units with a higher emissions profile. It is for both the economic and environmental reasons

that policymakers should be extraordinarily resistant to skewing market-based outcomes through subsidies or other interventions.

9. *Page 6. NEPGA contends that subsidizing natural gas pipelines through electric utility rates would also have a detrimental commercial impact on many natural gas power plants. Specifically, NEPGA argues that gas-fired generators connected to or in close proximity to the winning pipeline project selected will have their fuel supply subsidized while other generators will suffer. While Staff agrees that this is a valid concern it questions whether it could be addressed by the use of a competitive solicitation that provides for multiple projects to supply the needed incremental capacity. Does NEPGA have any thoughts on how a competitive solicitation might be designed to achieve this outcome?*

NEPGA fundamentally opposes subsidies and out-of-market solutions that impact competitive wholesale electricity market outcomes. NEPGA therefore remains concerned with proposals to subsidize the financing of new natural gas pipeline capacity into New England. NEPGA therefore has no position on this question.