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July 20, 2015

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RE: Docket No. IR 15-124
Investigation into Potential Approaches to Ameliorate Adverse Wholesale Electricity Market Conditions in New Hampshire

Responses of Eversource Energy to Staff's Requests

Dear Attorney Speidel:

On July 6, 2015, the Commission Staff issued a series of questions addressed to "Eversource/Access Northeast." For clarity, Public Service Company of New Hampshire d/b/a Eversource Energy is participating in this proceeding as an electric distribution company ("EDC") in New Hampshire and not on behalf of, or in conjunction with, representatives of the Access Northeast project, either from Spectra Energy or within the Eversource Energy group of companies.

Accordingly, included with this letter are the responses to questions that were deemed relevant to, or directed at, the EDC and the comments it had offered in this investigation on June 2, 2015. To the extent the questions sought information about the Access Northeast project or issues relating to that project, those questions have been provided to representatives of that project to be separately answered.

Consistent with Staff's instructions, these responses are being provided electronically only. If you have any questions, please do not hesitate to contact me. Thank you for your assistance with this matter.

Very truly yours,

Matthew J. Fossum
Senior Counsel

Enclosures

Public Service of New Hampshire dba Eversource Energy
Docket No. IR 15-124

Date Request Received: 07/06/2015 **Date of Response: 07/20/2015**
Request No. STAFF 1-001 **Page 1 of 1**
Request from: New Hampshire Public Utilities Commission Staff

Witness: James G. Daly

Request:
Spectra Energy's Nov 6, 2014 slide presentation states that the Access Northeast project includes upgrading the Algonquin pipeline system and local LNG storage facilities. Please explain the role LNG storage plays in the project, state when LNG commodity withdrawals will be permitted, explain how the fixed costs of upgrading local storage facilities will be recovered, detail how LNG commodity service will be priced, and explain how the commodity-based revenues will be handled.

Response:
Eversource EDCs are in the process of analyzing and determining the best alternatives, and as part of that process are in active negotiations with Access Northeast. The Access Northeast Project offers a value-added LNG service that is an attractive feature to meet the fluctuations in demand that generators have within a day, as well as offers a domestic market area supply source that is available to ensure reliability of supply in the region. It is contemplated that the LNG would go into inventory at cost, based on the price of gas at the liquid receipt point where it is purchased, plus variable costs associated with transportation to the LNG plant and liquefaction processing. It is expected that this supply will be economically priced as gas is liquefied during off peak periods when prices are typically lower and the supply is sourced from domestic supply from liquid supply points. It is envisioned that the LNG product would be released into the market place by a Capacity Manager at market-based pricing to generators first and foremost. All else equal, the release of additional reliable and readily available supply into the system/market during the highest demand days would lower the market price for gas thereby also lowering electricity prices which are driven by the price of gas. It is important to note that LNG is generally utilized for the top demand days on the system or for emergency support purposes. As such, to ensure reliability, the EDCs' Capacity Manager will have delineated planning rules and criteria to ensure reliability of supplies throughout the peak periods of demand.

The entry of additional firm incremental pipeline capacity, coupled with additional LNG domestic supplies during peak periods, would have a dampening effect on market area prices all else equal. The EDC customers would receive the benefits of the positive differential between the cost-based rate and the value of service market rate, which would offset the associated contractual costs to ensure reliability at a reasonable cost.

The Project will separately respond to this question.

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Date Request Received: 07/06/2015 | **Date of Response: 07/20/2015**
Request No. STAFF 1-002 | **Page 1 of 1**
Request from: **New Hampshire Public Utilities Commission Staff**

Witness: **James G. Daly**

Request:
If LNG commodity service is to be priced on a cost-of-service basis, please provide a cost breakdown of the price of re-gasified LNG commodity assuming the commodity originates from the Marcellus Shale production area and is liquefied and stored during the summer months. Please also confirm that the developers intend to liquefy domestic natural gas. See Eversource comments at page 16.

Response:
Please see the EDC response to Question 1. The Spectra Project Team will respond separately.

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Date Request Received: 07/06/2015 **Date of Response: 07/20/2015**
Request No. STAFF 1-003
Request from: New Hampshire Public Utilities Commission Staff

Witness: James G. Daly

Request:
If LNG commodity service is priced on a market basis, please describe the market-based pricing method the developers intend to use and provide a market-based estimate of the price of the re-gasified LNG commodity. Please also explain how a market-based pricing method is consistent with the overall objective of reducing or eliminating winter period basis differentials and hence lowering the price of natural gas to gas-fired generators.

Response:
Please see the EDC response to Question 1. The Spectra Project Team will respond separately.

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Date Request Received: 07/06/2015 **Date of Response: 07/20/2015**
Request No. STAFF 1-009
Request from: New Hampshire Public Utilities Commission Staff

Witness: James G. Daly

Request:
Will EDC's have the ability to purchase capacity on pipelines upstream of the Access Northeast receipt point?

Response:
The EDCs would not be precluded from entering into upstream capacity contracts by participating in any market area project. For example, the EDCs could engage the various pipelines with potential receipt point interconnections into Access Northeast to purchase upstream pipeline capacity. The EDCs would evaluate all of the options and as part of that analysis would evaluate the liquidity of specific supply purchase locations to make the determination as to the benefit and need for any upstream capacity.

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Date Request Received: 07/06/2015 **Date of Response: 07/20/2015**
Request No. STAFF 1-014
Request from: New Hampshire Public Utilities Commission Staff

Witness: James G. Daly

Request:
How much capacity does Eversource expect each New Hampshire EDC to purchase?

Response:
Eversource would propose that each EDC contract for its Load Ratio Share of electrical load in NH for participating EDC's. Which EDC's would participate would be up to the PUC. Since increased natural gas supply will lower costs to consumers via lower clearing prices, there is good cause for all electric customers to pay for those benefits. The greater the participation among retail load, the lower the cost per customer. However, in any pipeline expansion, there will be free riders which has been the case in New England for a long time with merchant gas generators and hence electrical load availing of short term interruptible capacity paid for by gas LDC customers. This worked until surplus LDC capacity was unavailable as has happened with the growth of LDC load in recent years. The important decision driver for NH would be that the benefits through lower electricity costs coupled with increased reliability exceed the costs so there is a net benefit for NH electric customers.

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Date Request Received: 07/06/2015 | **Date of Response: 07/20/2015**
Request No. STAFF 1-015 |
Request from: **New Hampshire Public Utilities Commission Staff**

Witness: **James G. Daly**

Request:
The confidential material sent by Eversource, UI and NGRID to NESCOE states that EDCs would contract for capacity under a pipeline specific Pipeline Rate Schedule that is tailored to meet the needs of the ISO-NE electric market. Does that mean affiliated EDCs have the option of contracting with any pipeline project that has such a Pipeline Rate Schedule or just the Access Northeast project?

Response:
The EDC's could contract with the project that provides the most reliable, flexible and economic solution. EDC's could contract with any pipeline project that meets the standards required and established by the authority to bring pipeline capacity to generators to enhance reliability and alleviate pipeline constraints in the region. The confidential material sent to NESCOE was a proposal designed to meet the specific needs of generators within the current market rules of the gas and power markets.

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Date Request Received: 07/06/2015 **Date of Response: 07/20/2015**
Request No. STAFF 1-018
Request from: New Hampshire Public Utilities Commission Staff

Witness: James G. Daly

Request:
Regarding the release of capacity to gas-fired generators, why does Eversource believe FERC's capacity release rules allow for pipeline capacity to be targeted to gas-fired generators?

Response:
The EDC's view the proposed capacity release rules, which would give priority to the generators who could then bid on the available capacity as needed, are conceptually similar to the retail choice capacity release program exemptions that currently exist today. The retail choice program allows for the capacity to be directly assigned to third party suppliers without the required bidding process mandated by FERC 712. Accomplishing this for New England generation would be possible through state approved reliability/capacity program as approved by FERC that allows for a waiver of 712 rules for this specific purpose consistent with other state approved programs.

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Date Request Received: 07/06/2015 **Date of Response: 07/20/2015**
Request No. STAFF 1-019 **Page 1 of 1**
Request from: New Hampshire Public Utilities Commission Staff

Witness: James G. Daly

Request:
Eversource has indicated that the Capacity Manager would initially auction the available capacity to gas-fired generators only. Does Eversource expect the auctions be conducted weekly, monthly or annually? Also, does Eversource anticipate that all gas-fired generators will submit bids for that capacity or just generators directly served by Algonquin and M&N? What are the market implications of a pipeline expansion project not covering all gas-fired generators in the region?

Response:
Eversource expects the capacity to be made available on an "intraday", daily, weekly, monthly, annual and potentially long term basis to generators as needed who request it, as there is no obligation for any generator to take capacity. Eversource assumes that generators will only request capacity on the pipelines that can ultimately serve their plants. To the extent that only a partial solution is implemented, the market would likely continue to have some variability, which would be correlated to the ultimate size and scope of the project. Economic theory provides that as more incremental supply (or capacity) is added to a market, the more likely it is that this will lead to prices inherently falling as there is more liquidity to the market and it moves toward an equilibrium of supply and demand.

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Date Request Received: 07/06/2015 **Date of Response: 07/20/2015**
Request No. STAFF 1-020 **Page 1 of 1**
Request from: New Hampshire Public Utilities Commission Staff

Witness: James G. Daly

Request:
Does Eversource believe ISO-NE or the IMM will treat the cost of capacity purchased through the auction as a fixed cost? If so, is it likely that gas-fired generators will be able to recoup this cost through energy or capacity market mechanisms?

Response:
If capacity is short term in nature relating to fuel delivery, generators can include it as a fuel cost in their energy bids. The service EDCs are looking to contract for is long term capacity. In order to maximize revenues to support the sale of that capacity to generation, it makes sense to allow multi-year capacity sales. If cost of capacity is long term in nature such as a multi-year capacity obligation in order to support a bid into the FCM, then a generator should be able to use the capacity payment in justifying its bid price into the auction without mitigation.

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Date Request Received: 07/06/2015 **Date of Response: 07/20/2015**
Request No. STAFF 1-021
Request from: New Hampshire Public Utilities Commission Staff

Witness: James G. Daly

Request:
If the cost of capacity acquired via the auction is deemed significant, explain why a generator would agree to incur this cost and risk under recovery. Why wouldn't generators with dual-fuel capability simply switch fuels and offer on the basis of oil?

Response:
A generator would not want to incur a significant cost via the pipeline capacity auction as their bids into the energy market would likely not clear when competing against other generators relying on interruptible non-firm capacity which is lower in costs or oil based bids which at times are lower cost than high cost gas capacity in constrained markets. This is why generators have not signed up for long term firm capacity to date. Long term gas pipeline capacity is charged by the pipeline throughout the year as a fixed charge. During many months when the capacity market is surplus, a generator would not be able to recoup the cost of that capacity. This leaves generators relying on peak demand months to recover the cost of that capacity which would yield less revenue in an less constrained market following a pipeline expansion.

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Date Request Received: 07/06/2015 **Date of Response: 07/20/2015**
Request No. STAFF 1-022
Request from: New Hampshire Public Utilities Commission Staff

Witness: James G. Daly

Request:
Does Eversource foresee the need for market rule changes that would allow pipeline capacity costs to be recovered through energy market or capacity market offer prices?

Response:
Market rule changes should not be required for energy market bidding as gas transportation is a fuel expense allowed under ISO market rules. Long term transportation to support the forward capacity market is a necessary infrastructure cost for generators and should be allowed as part of the bidding in the FCM.

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Date Request Received: 07/06/2015 **Date of Response: 07/20/2015**
Request No. STAFF 1-026
Request from: New Hampshire Public Utilities Commission Staff

Witness: James G. Daly

Request:
Page 11. Eversource addresses various risks to retail customers associated with the Access Northeast project. Not addressed is the risk that gas-fired generators choose not to bid on the pipeline capacity made available by EDCs via auction. Does Eversource believe this is a realistic and significant risk? If yes, how can this risk be mitigated? If no, why not?

Response:
At times of the year when capacity is unconstrained and there is much more gas capacity available than needed, capacity could go unsubscribed although this is less likely to occur if the service has a no notice service supported by local LNG storage as contemplated by projects like Access Northeast. In this case, other capacity without such a service is likely to go unsubscribed first. Competitive bidding for such service is proposed by the EDCs so the market should determine which service has the highest value and will be used first. In constrained markets, all capacity will be subscribed. Mitigation can be applied through the optimal mix of pipeline capacity and local LNG storage. Providing solely pipeline capacity 365 days for needs that occur only on the very coldest winter days may not be the most economic and could be provided at a lower cost when combined with local LNG storage. Also, the ability of a pipeline and/or LNG to service a broader market connected to the maximum number of generators will attract more demand and lower costs.

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Date Request Received: 07/06/2015 **Date of Response: 07/20/2015**
Request No. STAFF 1-028
Request from: New Hampshire Public Utilities Commission Staff

Witness: James G. Daly

Request:
ISO-NE in a recent whitepaper contends that energy market price reductions caused by subsidized renewable resources put upward pressure on capacity market prices. Has Eversource considered the potential impact on capacity prices caused by energy price reductions driven by EDC funded pipeline expansion projects? If yes, please provide copies of related analyses.

Response:
The ISO white paper contemplates that if energy prices and hence revenues to generators fall, then capacity prices need to rise in order to keep generation financially whole. This was in the context of subsidizing renewable energy and its impacts on other generation in the same market. That is not the case in this situation where a gas pipeline expansion would create market efficiencies though lower fuel costs. Gas fired generators would have an increase in efficiency through lower fuel costs and would not need an increase in capacity payments to offset the lower revenue. Other non gas generation would see a loss in revenues but these units have seen a large run up in energy revenue caused by constrained gas markets. There is no evidence that a reduction in revenues caused by lower cost gas would necessitate a need for additional capacity revenues. Indeed the reverse has been the case where capacity market revenues in New England have increased from circa $1.2Bn to over $4Bn annually in the latest Forward Capacity Market auctions. This is occurring with high energy prices due to gas capacity markets constraints through 2018/19. The ISO white paper may appear logical in that lower energy revenues need to be offset by higher capacity revenues but there are many drivers beyond energy prices that impact capacity prices such as the overall availability of capacity in the market, efficiency, technology and competition to name but a few.

The project has separately responded.

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Date Request Received: 07/06/2015 **Date of Response: 07/20/2015**
Request No. STAFF 1-031
Request from: New Hampshire Public Utilities Commission Staff

Witness: James G. Daly

Request:
Assuming New England regulators decide to support two or more regional pipeline projects, how could that decision be implemented through capacity purchases made by the region's EDCs?

Response:
The EDC approach contemplates that each EDC would contract for its electric load ratio share of a pipeline project. That approach is not limited to one project but could support multiple projects that can be justified from a cost/benefit and reliability perspective for electric customers. In each case, an economic evaluation would need to be performed by the EDC before entering into a contract and supporting such a filing before the state utilities commission for contract approval. The management of the capacity would be through a Capacity Manager similar to the one pipeline solution.

The project will separately respond to this question.