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September 2, 2015

Alexander Speidel  
Staff Attorney/Hearings Examiner  
New Hampshire Public Utilities Commission  
21 S. Fruit St., Suite 10  
Concord, N.H. 03301-2429

**Re: Responses to Staff Questions From August 26, 2015 Follow Up Meeting For Access Northeast in Investigation into Potential Approaches to Mitigate Wholesale Electricity Prices**

Dear Mr. Speidel:

Algonquin Gas Transmission, LLC (“Algonquin”) and Spectra Energy Partners, LP (“Spectra Energy”) hereby provide the following responses to Staff of the New Hampshire Public Utilities Commission’s follow-up questions regarding the Access Northeast subscription process on behalf of Access Northeast:<sup>1</sup>

- 1. Please provide a revised map similar to Exhibit 18 in the ICF Study without the power plants, but with all pipeline interconnects to Algonquin and Maritimes & Northeast Pipeline (“Maritimes”). Please include TETLP M3, Mahwah, Brookfield, Wright and Dracut.**

Please see Attachment Map 1.

- 2. Please provide the equivalent chart of wholesale electricity prices.**

Requested ICF to provide data. Response anticipated under separate submission.

- 3. Please provide a facilities description of Access Northeast.**

The Access Northeast project includes the expansion of approximately 120 miles of pipeline on the Algonquin system as well as an expansion of existing market area storage Liquefied Natural Gas (“LNG”) facilities in Acushnet, MA. The Project will provide firm capacity of 900 Mdt/d, specifically designed to provide a firm fuel supply for approximately 5,000 mega-watts of natural gas fired electric generation. In addition to the capacity dedicated to electric generation, Access Northeast will also be providing firm transportation to serve LDCs that plan to participate in the project. As a result of this LDC participation, the project size is estimated to be between 900 and 1,000 MDth/d in total capacity.

**Facilities by State**

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<sup>1</sup> “Eversource Energy Service Company”, a subsidiary of Eversource Energy, National Grid Transmission Service Corporation, an unregulated wholly owned subsidiary of National Grid USA, Spectra Energy Corp., and Spectra Energy Partners, LP are working to develop the Access Northeast Project.

**New York** – Approximately 14 miles of 26 inch to 42 inch lift and re-lay of pipe; compressor station modifications

**Connecticut** – Approximately 31 miles of 26 inch to 42 inch lift and re-lay of pipe; Approximately 22 miles of 36 inch pipe loop expansion; compressor station modifications

**Rhode Island** – Compressor station modifications and a retirement of current unit

**Massachusetts** - Addition of approximately 25 miles of 30 inch pipeline loop/lateral; Addition of approximately 27 miles of 16 inch greenfield pipeline lateral; Addition of approximately 3.0 miles of 24 inch greenfield pipeline lateral; compressor station modifications

Please see Attachment Map 2.

**4. Please provide a summary of key points explaining what the Access Northeast project brings to the New England Region.**

As the Commission, Staff and numerous stakeholders have acknowledged the constrained supply and associated high price of natural gas in New Hampshire and the rest of New England results directly in the higher price of electricity and reduced reliability to natural gas-fired generators. As Staff and the Commission evaluate options for alleviating these supply constraints, Spectra Energy urges consideration of the following four critical points:

**A. The most logical and efficient way to address the cost of electricity and the reliability of natural gas supplies to electric generators in New Hampshire and throughout New England is to increase the availability of firm pipeline capacity on the Algonquin System.**

New England experiences a significant premium for natural gas prices that directly results in higher electric prices for consumers. The reason for this pricing disparity is simple. Natural gas-fired electric generators consume approximately 40% of natural gas in New England, yet only account for less than 4% of the total **firm** transportation on a major pipeline like Algonquin and 0% of firm transportation on Maritimes. Instead of relying on a methodical assessment of peak day need backed up by firm transportation contracts, almost the entire natural gas-fired electric generation fleet relies on interruptible service or secondary capacity service made available when end users such as natural gas local distribution companies (“LDCs”) do not utilize their transportation. Quite simply, New England’s natural gas-fired electric generators rely on pipeline contracting practices that during peak demand days cannot support the requirements of the generators.

In theory, if all users of natural gas in New England secured pipeline capacity to meet their peak day needs, the delivered cost of gas in New England compared to New York and the rest of the northeast would reflect a modest premium based on the variable charges to transport that gas to the delivery meters. Excluding the cost of the pipeline transportation, achieving this level of pricing parity for New England would maximize the cost savings to energy consumers in the form of lower natural gas prices and lower electric prices. Access Northeast was designed with this goal in mind.

Access Northeast will expand the takeaway capacity from Mahwah/Ramapo by up to 500 MDth/d. Combined with projects such as the Algonquin Incremental Expansion (“AIM”) and the Atlantic Bridge Project, this type of expansion increases Algonquin’s west-to-east pipeline capacity between New York and New England by approximately 70%. It is believed that this type of increase in capacity will significantly reduce volatility in the Algonquin City Gate.<sup>2</sup> This price point is significant as it is most closely reflected in the pricing of New England electricity.

**1. Access Northeast will provide firm capacity directly to 60% of New England’s most relied-upon natural gas generators.**

a. “Last Mile” Delivery

In evaluating any natural gas capacity-based solution, it is important for Staff and the Commission to consider whether that solution provides firm transportation directly to generators. Unless natural gas can be delivered the “last mile” to generators, such natural gas will not be available where and when it is needed most. Projects that propose to provide firm transportation to “hubs” such as Dracut do not address the basic problem. In order for firm transportation to be available to a majority of the natural gas fired generation in New England, additional firm transportation must be acquired on the downstream pipeline or pipelines to reach the generators. Otherwise, New England may invest significant sums in pipeline capacity only to end up with a service that is interruptible.

As such, any serious proposal to have consumers finance pipeline expansions must ensure that on a peak day, natural gas-fired generators have access to firm transportation that directly reaches the power plant delivery meter. Access Northeast provides those requisite incremental capacity increases to reach the most heavily relied upon natural gas-fired generators in the region which are located along the Algonquin and Maritimes pipelines. This is what is meant by the need for regulators to focus on reliability – it is not reliability of the entire ISO New England electric grid, rather reliability of natural gas delivery to natural gas-fired generators. That said, to the extent the overall electric grid reliability is premised on the most called-upon natural gas-fired electric generation being available on a peak winter day, that natural gas-fired electric generating capacity must be supported by firm transportation.

As a footnote, sole reliability on LNG misses two major points: 1) the region will still be exposed to price fluctuations in the world market in which competitive pressures will continue to create volatility; and 2) such a solution continues to miss the mark regarding “last mile” deliverability to generators. Gas in the market does nothing if it doesn’t get to the generators who will need to be called upon to generate electricity – neither from a price impact nor a reliability perspective.

b. Identification of key generators and aggregation areas

In order to calibrate the capacity provided by Access Northeast to generators’ needs, Access Northeast’s developers examined natural gas consumption and burn rates at those plants on the Algonquin and Maritimes systems on a peak natural gas demand day (i.e., extreme cold) and compared that against what was required on that day from natural gas-fired and oil-fired electric generation needs to serve electric load. The combined total was 5000 MW for that day. Largely using the forecast model that LDCs use to determine their own contracting needs, we assumed that on that coldest day the region had a critical

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<sup>2</sup> Spectra Energy, IR 15-124 Responses to Staff Questions (July 20, 2014) at 3-4.

combined need for 5000 MW and would therefore in the future need that same natural gas-fired generation to confidently and reliably serve 5000 MW to electricity customers. This translates to a 900,000 Dth/d natural gas pipeline peak day requirement to meet that load.

Through ranking those most-efficient and most frequently dispatched plants on the Algonquin and Maritimes system, we identified the location of those plants and designed aggregation areas around reaching those areas where the plants were located. As such, the Access Northeast service is uniquely designed to make the last mile delivery to the generators in that aggregation area.

**B. Access Northeast will connect with multiple existing source pipelines, providing a diversity of sources and associated supplier choice and lower prices.**

In addition to supporting delivery the last mile to electric generators, Access Northeast's diversity of upstream pipelines allows natural gas to be sourced from a wide range of supply points. By having firm capacity entitlements, natural gas-fired generators will no longer be solely dependent on buying gas at Algonquin City Gate but can go upstream and purchase gas at basins that are at lower prices, on a firm basis. These supply points have been sufficient to support current expansion on Algonquin and will continue to support additional expansion by Access Northeast. Upstream supply pipelines that will serve electric generators along the route of the Access Northeast project include: Tennessee Gas Pipeline, Millennium Pipeline Company, LLC and the Iroquois Gas Transmission System. Connection to these source pipelines will be accomplished through direct connections at Mahwah, New Jersey; Ramapo, New York and Brookfield, Connecticut. In addition to firm access to supply through these points, Access Northeast may also offer flexibility of receipt at other pipelines including Texas Eastern Transmission, LP, Columbia Gas Transmission Corporation, Transcontinental Gas Pipeline Corporation and Portland Natural Gas Transmission System.

These upstream pipelines have recently expanded delivery capability into the region and/or are currently developing expansion projects to increase capacity in the near future. These expansions have already resulted in a current level of supply that exceeds current pipeline takeaway capacity at Mahwah and Ramapo alone. Thus, supply dynamics on Algonquin are supportive of additional pipeline expansions from these points. Additional sources of gas include LNG import and storage facilities operated by Distrigas of Massachusetts Corporation and Excelerate Energy Limited Partnership. Natural gas from offshore Nova Scotia and the Canaport LNG facility can also be transported to Algonquin customers by way of the Maritimes pipeline system interconnection near Beverly, Massachusetts.

There is no restriction contemplated in the Access Northeast proposal that would prohibit or limit the ability of EDCs to purchase capacity on pipelines upstream of Access Northeast and delivered to Algonquin. However, the Access Northeast project is unique in the diversity of receipt points and the pipeline supply exceeding the takeaway capacity. Consequently, shippers will have great flexibility to identify low-cost suppliers in a wide geographic area, obviating the need to acquire firm capacity on any particular upstream pipeline.

**C. Access Northeast will provide a specialized character of service that power generators need.**

The existing natural gas pipeline network in New England has been designed to serve the needs of LDCs and their customers, and Access Northeast would add critical features tailored to the needs of electric generators.

- a. Electric generators have a need for additional service characteristics to address the growth of natural gas-fired electric power generation.

Natural gas generators may only have short notice under ISO-NE's dispatch system. One of the key benefits provided by natural gas power generation is this quick-start potential, especially when contrasted to the long ramp-up times required of coal and other legacy fuels. That said, natural gas generators can only exercise quick-start potential when sufficient fuel is available on short notice. The non-ratable service that would be available through Access Northeast would allow generators to schedule natural gas in short hourly blocks that would reflect varying electric generation needs through the day. As natural gas-fired generators tend to be dispatched during peak electric demand periods, they may require natural gas supply for a few hours at a time rather than the whole 24-hour cycle.

Electric generators have signaled the need for service tailored to the needs of the electric generation industry, particularly in comments filed with the Federal Energy Regulatory Commission ("FERC"). In comments to FERC, the Alliance for Cooperative Energy Services Power Marketing LLC (a collaboration of 21 power supply electric cooperatives) stressed that "[f]lexible pipeline services and commodity procurement products must emerge to address the growth of gas-fired electric power generation." It identified non-ratable service, no-notice service and after hours scheduling as key features of procurement policies that would serve the growing need for natural gas-fired electric power generation.<sup>3</sup> Similarly, electric generator EquiPower Resources Corp. urged the gas and electric industries to "develop and implement a construct that allows natural gas to be delivered to electric generators on a no-notice, non-ratable basis throughout each day to ensure that the electric load is reliably served."<sup>4</sup> Access Northeast will provide such service.

- b. Uniquely, Access Northeast provides such tailored service for electric generation in the form of nonratable takes and quick-start service supported by storage and LNG.

The first aspect of Access Northeast's unique service is the reservation of pipeline transportation capacity. Under the current nomination and scheduling rules for natural gas transportation, parties must follow specific timelines established by LDCs and the natural gas industry. At the timely cycle, which is 11:30 am Central on the day before gas flows at 9:00 am Central the next day, parties nominate their specific transportation activities. Pipelines evaluate those activities in aggregate and schedule their pipelines based on the priority of services nominated. If there are potential choke points on a particular pipeline, or as is the case with Algonquin, the pipeline is fully subscribed, a particular activity may not be scheduled at the timely cycle, or any additional nomination cycle that has been established.

Under the tariffs contemplated by the Access Northeast project (discussed in prior submittals as Energy Reliability Service or "ERS"), the primary firm transportation path is held open at the timely scheduling cycle. Consequently, ERS can be nominated at or during any of forty-one additional nomination cycles to be provided by Algonquin and/or Maritimes as expanded through Access Northeast. In essence, the transportation path is available to be nominated 24/7, and as long as supply is confirmed, those activities are able to ramp up or down based on the expected use profiles.

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<sup>3</sup> Alliance for Cooperative Energy Services Power Marketing LLC, comments in FERC Docket No. RM14-2-000 (Nov. 28, 2014) at 12.

<sup>4</sup> EquiPower Resources Corp., Motion to Intervene and Comments in FERC Docket No. RM14-2-000 (Nov. 26, 2014) at 8.

Along with the no notice capability, the integration of LNG storage for Access Northeast provides flexibility by allowing shippers that have ERS to commence delivery for up to two hours before confirmation of nominated supply, thus allowing for a “quick start” of the plant. With the transportation space already reserved on the pipeline, this quick start aspect enhances the generator capability to start flowing gas without the commensurate supply being nominated. The generator simply has to notify the pipeline that they will be using the ERS service, and will begin to pull gas off the pipeline. ERS provides a generator with two hours to get the commensurate supply nominated and confirmed to the pipeline. A generator can nominate its upstream supply from any of the primary firm receipt points under its ERS service agreement. If the supply is not nominated, the storage provided by the LNG allows the pipeline to start pulling in supply, if necessary, until the generator’s supply is nominated, confirmed, and starts to flow within that two hour period. This service is invaluable to electric generators. Not only will the generators know that they have pipeline space available to them at any point in time during the day or night, but they will also be able to quickly ramp up on a moment’s notice if dispatched by ISO-NE. With this feature, Access Northeast also will provide the EDCs with the opportunity to acquire natural gas at deeply discounted summer prices (compared to winter prices) and to make such natural gas available during the winter period.

#### **D. Concluding Thoughts**

As New England’s generation fleet increasingly relies on natural gas, any viable solution will need to provide increased supply of natural gas in a way best tailored to the needs of electric generators in New England. Access Northeast’s tailored design and service for power generators uniquely hits the mark and offers significant cost benefits as well as increased reliability.

Spectra Energy and Algonquin appreciate the opportunity to provide these responses on behalf of the Access Northeast project developers. Please direct any questions to Janice K. Devers (713-627-6170) or Richard J. Kruse (713-627-5368).

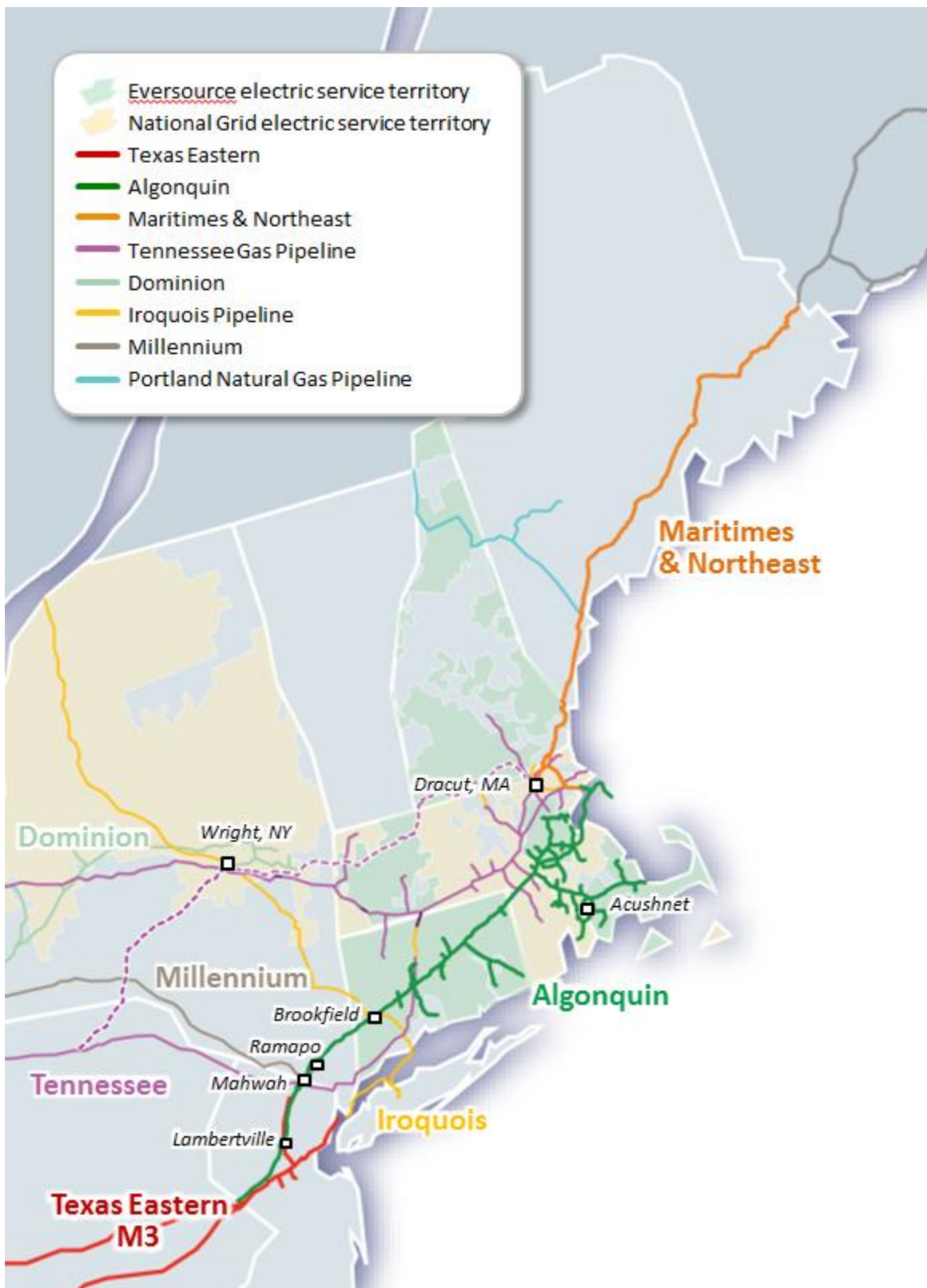
Sincerely,

/s/ Richard J. Kruse

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## Attachments

Map 1





Map 2

