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June 2, 2015

**Via Electronic Mail and US Mail**

Alexander F. Speidel, Esq.  
Staff Attorney/Hearings Examiner  
New Hampshire Public Utilities Commission  
21 S. Fruit Street, Suite 10  
Concord, NH 03301-2429

**Re: IR 15-124 Investigation into Potential Approaches to Ameliorate Adverse Wholesale Electricity Market Conditions in NH**

Dear Mr. Speidel:

**I. Introduction**

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities is pleased to provide comments regarding potential approaches involving New Hampshire's electric distribution utilities (EDCs) to address cost and price volatility issues currently affecting wholesale electricity markets in New Hampshire. This investigation was ordered by the Commission as a result of the significant volatility in wholesale electric prices seen in New England during the last two winter seasons. The Commission believes that a "targeted Staff investigation to examine the gas-resource constraint problem that is affecting New Hampshire's EDCs and electricity consumers generally may yield potential solutions to these market issues." Until the wholesale electric market resolves the underlying conditions that resulted in the current situation, the volatility and high wholesale electric prices will continue to be the norm.

In the Technical Session that was held on May 12, 2015, the Commission Staff asked for interested parties to file written comments that describe the root cause of the high prices and provide descriptions and solutions that would address this problem.

**II. Causes of Recent Winter Wholesale Price Volatility**

The New England region has limited domestic energy resources that can be used to generate electricity and has traditionally relied on resources imported from other regions of the country or international sources. Traditionally, these resources have included natural gas, coal, oil and uranium. Recently electric generation has begun to utilize renewable resources located in the region in the form of solar, wind, bio-mass and land-fill gas, but these resources, including hydro-electric generation, currently provide approximately 15% of the annual electric generation requirements in New England.

Since 2000 there has been a shift in the energy mix used to provide electric generation in New England. In 2000, natural gas accounted for only 15% of the annual electric generation production while in 2014 it provided 44% of the annual electric generation production. One of the factors behind this shift is the desire to generate electricity from resources that are "cleaner" than coal and oil, which have

historically provided a significant portion of New England's electric generation needs. In addition, the discovery of significant reserves of natural gas has caused the cost to generate electricity from natural gas to plummet in the summer and has made generation from coal and oil significantly more expensive, by comparison.

In 2000, oil and coal accounted for 40% of annual electric energy production in New England, by 2014 oil and coal accounted for only 6% of annual electric energy production in New England. As a result, older and less efficient generating resources have become uneconomic to operate during most of the year and some are being retired from the generation mix. During the winter, constraints on natural gas availability in New England can and have caused the market economics to shift dramatically, resulting in decreased production from natural gas-fired plants, increased production from higher cost coal and oil plants and higher electricity prices.

As New England has increased its reliance on natural gas for the generation of electricity, it has not increased its commensurate ability to transport natural gas into the region. In fact, as a result of deregulation and market restructuring, many of the gas-fired generation facilities which required firm natural gas pipeline capacity to fulfill their obligations under long term-PPA's with EDCs, terminated their capacity contracts as they became merchant facilities operating in the "day ahead" market. During most of the year, there is sufficient capacity in the natural gas transportation system to accommodate both the needs of the natural gas local distribution companies ("LDCs"), who hold most of the capacity to serve winter heating load, and generation resources.

However, during the winter period and particularly during periods of extremely cold weather, the LDCs utilize virtually all of their firm pipeline capacity in order to serve their heat sensitive load leaving little capacity to transport natural gas to electric generation facilities. If there is any excess capacity available, it can only be purchased at a significant premium. As a result, the generation of electricity must come from expensive oil and coal resources or a premium must be paid for generation from natural gas resources. This combination of greater reliance on natural gas for electric generation and decreasing "slack" capacity in the winter period has progressively lead to higher and more volatile energy prices culminating in historically high electric and natural gas prices over the last two winter periods.

### **III. Potential Solutions to the Problem**

In 2014, New Hampshire's electric customers used a little over 9% of the total electricity used by all customers in New England. As a result, New Hampshire's ability to solve the problem of extreme wholesale price volatility during the winter season, or at any time, is very limited. This is a New England-wide problem that needs to be solved with a variety of region-wide solutions. At this time there are a number of projects and plans that have been proposed by various entities. These include, but are not limited to, changes to the New England wholesale electric market, new transmission lines to import power from Canada and New York and increasing the natural gas transportation system to accommodate both the current and expected growth in natural gas demand.

There are a few approaches New Hampshire's electric utilities could take that may shield their customers from wholesale market price volatility. The following suggestions are very general in nature and would require careful study before any one of them are considered for implementation. These are concepts that Liberty Utilities is proposing to advance the discussion related to possible solutions. Since these concepts are general in nature, Liberty is not advocating for a specific proposal at this time, as the details regarding implementation of any proposal will still need to be resolved.

1. An electric utility could enter into a contract to purchase pipeline capacity that would be sufficient to fuel the generation requirements needed to meet its entire distribution peak load. The cost of such capacity would be recovered from all customers as a non-bypassable charge levied on all distribution customers.

The electric utility would allocate or release such pipeline capacity to all wholesale suppliers serving load in its service territory at no cost to the supplier. Bidders on default service solicitations would be required to demonstrate that they would utilize this capacity when submitting their bids, thus insulating bidders from the impact of high market area gas prices by providing them with access to cheaper and more abundant natural gas supplies closer to the production area.

As a result, a competitive supplier would be able to reduce its cost of supply to serve customers in the utility's service territory. Since competitive energy suppliers would have access to this pipeline capacity, all customer segments should benefit equally.

2. An electric utility could enter into a long-term power purchase agreement with a new natural gas generation resource equal to a portion of its load requirements. This would be a contract for differences in which the utility does not take delivery of the output but instead pays the resource or receives from the resource the difference between the market price received by the resource and a price based on a monthly natural gas common index such as NYMEX plus a fixed adder. Anytime the market price is higher than the reference price, the resource would pay the utility and the opposite would occur if the market price is less than the reference price such that the pricing is effectively hedged. Net costs of the power purchase agreement would be recovered from all customers as a non-bypassable charge levied on all distribution customers.

The intent of this approach would be to provide an incentive for the development of natural gas generation with firm pipeline capacity to backstop the long-term PPA. With the access to cheaper natural gas supplies, these generator would likely be dispatched on their lower price and consequently lower the overall market price for electricity in the region. Customers would benefit from these lower prices whether on default service or taking competitive supply service.

3. As a variant on #2 above, an electric utility could enter into a long-term power purchase agreement with a natural gas resource based on the same pricing structure described in #2 above with the difference being that the utility would take delivery of the power but would use the power to satisfy a portion of load of both its default service customers and its customers taking competitive supply service.

The resulting default service and competitive supply service prices would reflect the cost of this supply. That is, the competitive supply service customers would have a portion of their load satisfied by this PPA such that their competitive supplier would only have to satisfy the remaining load. Again, the costs for this PPA would be paid by all customers as a non-bypassable charge.

The intent of this approach would be to limit customers' exposure to the volatility of the wholesale market by providing a base amount of power at a known and stable price and to thus encourage gas fired generators to contract for long-term pipeline capacity which would provide much needed gas pipeline infrastructure in the region.

Alexander F. Speidel, Esq.  
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Liberty Utilities thanks the Commission for opening this investigation and allowing interested parties the opportunity to provide comments for the Commission's consideration. Liberty Utilities looks forward to participating in this investigation.

Sincerely,

A handwritten signature in black ink that reads "Stephen R. Hall". The signature is written in a cursive style with a large, stylized 'S' and 'H'.

Stephen R. Hall

cc: Service List