



**STATE OF NEW HAMPSHIRE
BEFORE THE
PUBLIC UTILITIES COMMISSION**

Docket No. DG 14-____

Iberdrola USA Enterprises, Inc.

and

Liberty Utilities (EnergyNorth Natural Gas) Corp.

**DIRECT TESTIMONY
OF
FRANCISCO C. DAFONTE**

June 6, 2014

1 **Q. Mr. DaFonte, please state your name, business address and position with Liberty**
2 **Utilities (EnergyNorth Natural Gas) Corp. (“EnergyNorth” or “the Company”).**

3 A. My name is Francisco C. DaFonte. My business address is 15 Buttrick Road,
4 Londonderry, New Hampshire 03053. My title is Senior Director, Energy Procurement.

5
6 **Q. Mr. DaFonte, please summarize your educational background, and your business**
7 **and professional experience.**

8 A. I attended the University of Massachusetts at Amherst where I majored in Mathematics
9 with a concentration in Computer Science. In the summer of 1985 I was hired by
10 Commonwealth Gas Company (now NSTAR Gas Company), where I was employed
11 primarily as a supervisor in gas dispatch and gas supply planning for nine years. In 1994,
12 I joined Bay State Gas Company (now Columbia Gas of Massachusetts) where I held
13 various positions including Director of Gas Control and Director of Energy Supply
14 Services. At the end of October 2011, I was hired as the Director of Energy Procurement
15 by Liberty Energy Utilities (New Hampshire) Corp. and promoted to Senior Director in
16 July 2013. In this capacity, I provide gas procurement services to EnergyNorth.

17
18 **Q. Mr. DaFonte, are you a member of any professional organizations?**

19 A. Yes. I am a member of the Northeast Energy & Commerce Association, the American
20 Gas Association, the National Energy Services Association and the New England Canada

1 Business Council.

2
3 **Q. Mr. DaFonte, have you previously testified in regulatory proceedings?**

4 A. Yes, I have testified in a number of proceedings before the New Hampshire Public
5 Utilities Commission, the Massachusetts Department of Public Utilities, the Maine Public
6 Utilities Commission, the Indiana Utility Regulatory Commission, the Georgia Public
7 Service Commission, the Missouri Public Service Commission and the Federal Energy
8 Regulatory Commission.

9
10 **Q. Mr. DaFonte, what is the purpose of your testimony in this proceeding?**

11 A. The purpose of my testimony is to demonstrate the improved reliability of gas supply to
12 New Hampshire Gas Corporation (the “Keene System”) customers as well as the
13 improved gas supply economics that would also accrue to the Keene System customers
14 under the ownership of EnergyNorth. In addition, I will discuss the qualifications of the
15 gas supply group that provides services to EnergyNorth and its ability to undertake the
16 immediate management of the New Hampshire Gas supply portfolio.

17
18 **Q. Mr. DaFonte, can you provide an overview and qualifications of EnergyNorth’s gas**
19 **supply group?**

20 A. Yes. The EnergyNorth gas supply team is comprised of Natural Gas Traders, Planners,

1 Schedulers, Demand Forecasters and a team dedicated to managing the Customer Choice
2 process. The group has nearly 200 years of combined industry experience with primary
3 capabilities at the Local Distribution Company level in the New England market.

4
5 **Q. Where is the Company's Gas Supply group located?**

6 A. The Gas Supply group is located in Londonderry, New Hampshire at the Company's
7 offices at 15 Buttrick Road. While the group is responsible for the gas supply portfolio
8 management of all the natural gas utilities owned by Liberty Utilities Co., it does so from
9 this centralized location where it can better integrate processes and procedures.

10
11 **Q. Mr. DaFonte, are you familiar with the gas supply requirements of the Keene**
12 **System?**

13 A. Yes. The Keene System is served exclusively via a propane-air supply mix. In a normal
14 year the Keene System customers require approximately 1,500,000 gallons of propane.

15
16 **Q. How much propane is typically hedged for the Keene System customers?**

17 A. In a typical winter approximately 60% of propane requirements will be hedged. For the
18 2014-2015 winter period that equates to approximately 725,000 gallons.

1 **Q. Are the propane volumes hedged at winter or summer prices?**

2 A. The hedged volumes are for winter purchases and are therefore hedged at the prevailing
3 winter period prices. Currently the propane futures are trading at approximately \$1.04 per
4 gallon for the winter period which is equivalent to approximately \$11.35 per Dth before
5 transportation costs are added.

6

7 **Q. Could you describe how propane prices reacted to the much colder weather this**
8 **past winter?**

9 A. Due to the extremely cold winter, there was a shortage of propane supplies which put
10 upward pressure on the price for propane in New England as well as other regions across
11 the country. As a result, wholesale propane prices in New England traded well above \$30
12 per Dth this past winter.

13

14 **Q. Mr. DaFonte, in your opinion, is there a way to mitigate the need to pay such high**
15 **spot prices in the winter?**

16 A. Yes. One of the reasons for the run up in propane prices was the lack of available
17 propane inventory across New England. In fact, while the Keene System customers
18 benefited from the hedged propane, it was the spot purchases of propane that were
19 required to meet increasing demand that ultimately pushed prices above the \$30 per Dth
20 mark. Because the Keene System only has approximately 76,000 gallons of available

1 storage inventory capacity, it is necessary to lock in propane purchases in the winter
2 period at prevailing winter prices at the time and to also make more costly spot purchases.
3 If more storage is available to the Keene System, propane can be purchased in the
4 summer at a lower cost and stored in inventory for the winter, thus mitigating or
5 eliminating the need to pay high spot prices. By way of illustration, propane could have
6 been purchased last summer at less than \$10 per Dth equivalent and stored in inventory
7 for use in this past winter, thus avoiding spot prices of \$30 per Dth or more.

8
9 **Q. Does EnergyNorth have propane storage on its system?**

10 A. Yes. EnergyNorth has over 1,300,000 gallons of propane storage on its system. This
11 amount of storage would be nearly enough to satisfy the annual requirements of the entire
12 Keene System under normal weather conditions.

13
14 **Q. Could EnergyNorth's existing storage capacity help reduce propane costs to the
15 Keene System customers?**

16 A. Yes. The Keene system would not require much of the EnergyNorth inventory capacity
17 in order to lower costs to customers. A combination of hedging winter baseload
18 wholesale propane purchases at a reasonable futures price, currently about \$16.00 per Dth
19 delivered, and additional inventory capacity filled at current summer wholesale delivered
20 prices around \$14.00 per Dth, would avoid having to make spot purchases at higher

1 prices such as the \$40.00 per Dth peak prices seen this past winter. For example, just
2 109,000 gallons of extra inventory capacity filled at a current summer wholesale
3 delivered propane price of approximately \$14.00 per Dth would reduce the need to make
4 spot purchases in the upcoming winter at approximately \$34.00 per Dth on average,
5 resulting in a net savings to customers of approximately \$200,000.

6
7 **Q. Does EnergyNorth have available propane storage capacity?**

8 A. Yes. EnergyNorth has recently terminated a lease agreement with a third party propane
9 supplier in its Amherst tank farm that would make available approximately 250,000
10 gallons of inventory capacity for the upcoming winter. EnergyNorth has not required
11 access to this inventory capacity since 2005 and would not require this entire inventory
12 capacity going forward. As such, it could make it available to the Keene System
13 customers under the ownership of EnergyNorth where it could be managed jointly with
14 the EnergyNorth propane supplies by the centralized gas supply group in Londonderry.

15
16 **Q. Are you familiar with Puc 509.16 and Puc 506.03?**

17 A. Yes. These rules require a utility to maintain certain minimum levels of LNG and
18 propane inventory to satisfy system requirements under a 7-day cold snap that cannot be
19 served via pipeline capacity and provide weekly reporting of the status of such inventory.

1 **Q. Could EnergyNorth’s additional propane inventory capacity help the Keene system**
2 **from a reliability perspective?**

3 A. Yes. Since the Keene System is served solely by propane and its maximum propane
4 inventory capacity is approximately 76,000 gallons, additional propane inventory capacity
5 from EnergyNorth’s Amherst facility would allow the Keene System to satisfy the Puc 7-
6 day storage rules previously discussed due to the close proximity of the Amherst facility
7 to the Keene system for more reliable access to propane supplies. Further, the Amherst
8 propane storage would provide a short trucking distance and, unlike some propane supply
9 locations where product is often put on allocation and truck loading is delayed due to long
10 wait times for product during peak periods, the Amherst facility would have guaranteed
11 access to transfer product into the on-system storage tanks for the Keene System as it is
12 needed.

13
14 **Q. Could the other existing EnergyNorth propane facilities provide any type of**
15 **vaporization service to the Keene System?**

16 A. No. The three remaining EnergyNorth propane facilities in Tilton, Manchester and
17 Nashua are connected directly to EnergyNorth’s distribution system and can only
18 vaporize into that system.

1 **Q. Mr. DaFonte, would the proposed Tennessee Gas Pipeline Northeast Expansion**
2 **project be a viable supply option for the Keene System?**

3 A. No. The proposed route of the Tennessee project takes it more than 20 miles from the
4 Keene System. Building more than 20 miles of pipe at \$5 million - \$10 million per mile
5 would cost \$100 - \$200 million and be uneconomic to serve the Keene System.

6
7 **Q. How does the Company propose to manage the future supply options for the Keene**
8 **System?**

9 A. The Keene System supply is currently provided through annual and spot propane
10 purchases in conjunction with the Operating and Propane Air Sales Supply Agreement,
11 whose initial term expires in 2026 and is further amended for an additional three year
12 term (*See* Section (5)(b) of the Agreement, which is attached to Mr. Dickenson's
13 testimony). Since the propane supply contracts themselves are year-to-year in term, the
14 Company can determine whether it should continue to serve the Keene System with
15 propane on a year-to-year basis. Should the Company decide to continue to serve the
16 Keene System with propane, it may enter into a new propane supply contract that takes
17 advantage of the additional inventory capacity discussed earlier in my testimony. With
18 the additional inventory capacity, the Keene System would not be as reliant on spot
19 propane purchases in the winter period.

1 Alternatively, the Company is exploring the possibility of serving the Keene System via
2 Liquid Natural Gas (LNG) and/or Compressed Natural Gas (CNG), which is discussed in
3 my testimony below and further in Mr. Leehr's testimony.
4

5 **Q. Please discuss the logistics of providing an LNG and/or CNG supply service for the**
6 **Keene System?**

7 A. An LNG supply service would require the construction of a storage tank and vaporization
8 equipment to regasify the LNG into the Keene System. A CNG supply service would
9 require the construction of an onsite decompression facility for injection into the Keene
10 system as well as the use of an existing or to-be-built CNG facility. The benefits of LNG
11 and CNG include lower commodity costs as compared to propane and the ability to
12 increase the pipeline capacity utilization factor for EnergyNorth should that capacity be
13 used during the summer for liquefaction or compression of natural gas. LNG has the
14 added benefit of readily available on-system storage that could satisfy the Puc 7-day
15 storage rules previously discussed while CNG offers lower facilities costs as compared to
16 LNG.
17

18 The economics of LNG are very favorable given the current prices for natural gas in the
19 summer period when liquefaction of natural gas would typically take place. Current
20 summer natural gas futures prices are trading in the mid-\$4.00 per Dth range with prices

1 in the Marcellus production area trading in the \$4.00 per Dth range in some locations.

2 Adding the cost to liquefy this gas of approximately \$3.00 per Dth yields an LNG price of
3 approximately \$7.00 which is roughly half the cost of summer propane and one-fifth the
4 cost of spot propane this past winter. In terms of reliability, building a properly sized
5 onsite LNG storage and vaporization facility would provide sufficient onsite storage to
6 satisfy the Puc 7-day storage rules and allow for system growth on both the design day
7 and design year. The Keene System currently holds no pipeline capacity which would be
8 required to take advantage of the many LNG liquefaction projects being proposed in the
9 Northeast. However, since EnergyNorth does hold year round pipeline capacity, that
10 capacity could be utilized by the Keene System in the summer time when the capacity is
11 not required by EnergyNorth. During the summer this capacity has much lower value in
12 the secondary capacity release market and EnergyNorth is not able to recover the full
13 fixed costs of the capacity. If the capacity was used and paid for by the Keene System
14 customers, the EnergyNorth customers would realize a 100% credit for the fixed cost of
15 the capacity utilized to transport natural gas to any of the proposed liquefaction facilities.

16
17 CNG supply has many of the same economic benefits as LNG when compared to propane
18 since it simply involves the compression of lower priced natural gas. In addition, the cost
19 to compress natural gas is less expensive than liquefaction and the cost to decompress
20 CNG is also less expensive than the vaporization of LNG. However, the volume of CNG

1 that can be stored onsite is significantly less than LNG. In addition, the volume of LNG
2 that can be loaded and trucked in a single trailer for refill is about twice that of CNG
3 which increases the cost of CNG due to the increased trucking requirement. Similar to
4 LNG, any CNG required in the summer period would require the utilization of pipeline
5 capacity to deliver natural gas to a CNG facility. As with LNG, the capacity utilized
6 could be that already held and paid for by EnergyNorth customers and the increased
7 utilization of that capacity in the summer would create similar capacity release credits for
8 EnergyNorth customers.

9
10 Given the various economics and logistics of LNG and CNG, the Company will conduct
11 an in-depth analysis before making any decisions as to whether LNG, CNG or a
12 combination of the two is the best-cost future supply option for the Keene System
13 customers.

14
15 **Q. Does this conclude your direct prefiled testimony in this proceeding?**

16 **A.** Yes, it does.