



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

Docket No. DG 15-XXX

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities
Petition for Expansion of Franchise to the Town of Hanover and City of Lebanon, New
Hampshire

DIRECT TESTIMONY

OF

WILLIAM J. CLARK

July 24, 2015

1 **I. INTRODUCTION**

2 **Q. Please state your name and business address.**

3 A. My name is William J. Clark. My business address is 15 Buttrick Road, Londonderry,
4 NH 03053.

5 **Q. By whom are you employed and in what capacity?**

6 A. I am employed by Liberty Utilities Service Corp. (“Liberty”) as the Business
7 Development Professional. In that capacity, I am responsible for creating new business
8 opportunities for Liberty Utilities (EnergyNorth Natural Gas) Corp. (“EnergyNorth” or
9 “the Company”) and Liberty Utilities (Granite State Electric) Corp. (“Granite State
10 Electric”) while identifying and recommending new products, services and businesses
11 including enhancements of existing offerings to improve the overall profitability,
12 earnings production and strategic positioning of the companies. Another aspect of my job
13 description includes customer satisfaction enhancements such as community engagement
14 with local, regional and state officials to ensure their needs are being met by Liberty
15 Utilities. This also allows Liberty to understand local concerns or opportunities, which
16 are acted upon in a positive and timely manner.

17 **Q. On whose behalf are you testifying today?**

18 A. I am testifying on behalf of EnergyNorth.

1 **Q. Please state your educational background and professional experience.**

2 A. I graduated from St. Anselm College in Goffstown, New Hampshire, with a Bachelor of
3 Science degree in Financial Economics in 1991. In 1992, I began my career at Boston
4 Gas Company. During this time, I was a member of the Steel Workers of America, Local
5 12007 and held various positions in gas distribution and customer service, as well as
6 being a union official. In 1998, I was employed by National Grid to start an unregulated
7 energy service subsidiary, where I worked as a Sales Account Manager until 2010. In
8 2010, when National Grid sold this business, I was employed by National Grid as a
9 Commercial Gas Sales Representative, working in EnergyNorth's service territory. In
10 2012, I joined Liberty and progressed into my current position. In this role, I am
11 responsible for organic growth opportunities and commercial development for both
12 EnergyNorth and Granite State Electric.

13 **Q. Have you previously testified before this Commission?**

14 A. Yes. I testified before the New Hampshire Public Utilities Commission ("Commission")
15 in Docket No. DG 14-091 regarding a Special Contract and Lease Agreement with
16 Innovative Natural Gas, LLC d/b/a iNATGAS pertaining to construction of a compressed
17 natural gas ("CNG") facility in Concord, New Hampshire, as well as Docket No. DG 14-
18 380 regarding the Precedent Agreement between EnergyNorth and Tennessee Gas
19 Pipeline Company ("TGP") for capacity on the proposed Northeast Energy Direct
20 Pipeline.

1 **Q. What is the purpose of your testimony?**

2 A. My testimony provides details on how the proposed “off pipeline” natural gas
3 distribution system in Hanover and Lebanon, New Hampshire, will be supplied by natural
4 gas, as well as the benefits for existing and future customers.

5 **Q. When did Liberty begin the process of evaluating the “off pipeline” model for**
6 **Hanover and Lebanon?**

7 A. Liberty began the process of evaluating the “off pipeline” local distribution company
8 (“LDC”) model in 2013. The first public mention of this model occurred during a
9 presentation at the New Hampshire Business and Industry Association’s annual Energy
10 Seminar, which was held on December 11, 2013, by F. Chico DaFonte, then-Senior
11 Director, Energy Procurement¹. See Attachment WJC-1. Also in 2013, EnergyNorth
12 began the due diligence process on the possible acquisition of New Hampshire Gas. As
13 stated above, EnergyNorth acquired New Hampshire Gas in January 2015 and is
14 currently evaluating plans to convert that system to natural gas utilizing LNG and CNG
15 as the primary fuels. As EnergyNorth’s sister company, Granite State Electric, is the local
16 electric distribution company in Hanover and Lebanon, EnergyNorth is aware of the
17 customer demand for a cleaner, more convenient and less expensive fuel option. The
18 Company has been in discussions with large anchor customers in the area on their fuel
19 requirements and responded to a Request for Indicative Bids from Dartmouth College to

¹ Mr. DaFonte is now Vice President, Energy Procurement

1 supply its central boiler plant with LNG and/or CNG in January 2014. See Attachment
2 WJC-2 (indicative price range redacted). As indicated in Mr. Saad’s testimony,
3 EnergyNorth is also developing plans to expand to new franchise areas through
4 traditional pipeline expansion, as well as other areas of New Hampshire that could benefit
5 from “off pipeline” facilities.

6 **Q. How does an “off pipeline” distribution system work?**

7 A. An “off pipeline” distribution system has two key components. The first component is the
8 underground gas distribution piping along with service risers and meters located at the
9 customer’s premises. This component of the system is identical to the existing
10 EnergyNorth network that has been operated safely, reliably and efficiently by Company
11 employees for decades. The second unique component of the “off pipeline” distribution
12 system is the fueling facility that will be utilized to supply the distribution system with
13 natural gas.

14 A conventional local distribution network has an interconnection with an interstate
15 pipeline company. At this interconnection, an LDC would receive shipments of natural
16 gas from its supplier, regulate pressure down to LDC operating pressure (typically 60
17 PSI), and add mercaptan, which is a gas odorant, and distribute the gas to customers.
18 Because there is not an interstate pipeline within 50 miles of the Hanover/Lebanon
19 franchises with which to interconnect, the Company plans to construct an LNG storage

1 and vaporization facility along with a CNG decompression facility to supply the natural
2 gas to the distribution system and customers.

3 LNG will be trucked to the facility and off-loaded into LNG storage tanks. From the
4 tanks, the liquid will be vaporized into gaseous form, odorized as needed and injected
5 into the distribution system. This same procedure has been working reliably and safely at
6 EnergyNorth's current LNG plants for approximately 40 years. CNG will also be trucked
7 to the facility and attached to decompression skids, which will decompress the gas from
8 approximately 3600 PSI to the working LDC pressure of 60 PSI and injected into the
9 system. This process is relatively new, but has been working reliably and safely in New
10 Hampshire for the past few years.

11 **Q. Why is the Company planning to utilize both LNG and CNG for the distribution**
12 **system?**

13 A. The Company plans to operate this system in accordance with all New Hampshire Public
14 Utilities Commission (PUC) rules and within the terms and conditions of the existing
15 EnergyNorth tariff, with the exception of the Cost of Gas ("COG") calculation and
16 transportation customer service. For information on how the Hanover/Lebanon franchises
17 will be treated with respect to rates and tariff requirements, please see the testimony of
18 Mr. Mullen.

1 PUC 500 rules stipulate that the LDC have seven peak days of storage available to all
2 firm, non-interruptible customers. EnergyNorth plans to fulfill this requirement by
3 utilizing the storage ability of LNG, as CNG storage options are limited at this time.
4 However, there may be instances where CNG is the less expensive fuel and a more cost
5 effective choice for customers. By utilizing both LNG and CNG, EnergyNorth will be
6 able to diversify the fuels and provide the most reliable and least-cost service to
7 customers. There are currently seven CNG “virtual pipeline” compression facilities in
8 operation or under construction in New England that could provide fuel. Currently,
9 Xpress Natural Gas has two facilities in Maine and NG Advantage/Clean Energy has one
10 facility in Vermont and another in New Hampshire. Global Partners, LP has a single
11 facility in Maine. iNATGAS has two facilities under construction with one in New
12 Hampshire and the other in Massachusetts. EnergyNorth and iNATGAS have received
13 approval of a special contract from the Commission under which EnergyNorth will
14 supply firm quantities of CNG to iNATGAS’s open access facility.

15 **Q. Is there another component to this facility that would be a benefit to the region?**

16 A. Yes, the facility may also contain a natural gas vehicle fueling station. The vehicle
17 fueling facility would be an open access facility which may be utilized by private vehicle
18 owners as well as commercial fleet applications. Liberty Utilities is currently utilizing
19 CNG vehicles in its commercial fleet which has decreased costs and emissions.

1 **Q. What work has been done to date regarding design of the fuel facility?**

2 A. EnergyNorth has plans to design a fully scalable facility that will support a growing
3 customer base in the region. The Company has been utilizing internal engineers and
4 professionals along with retaining a leading, local firm in the LNG arena, Sanborn, Head
5 & Associates, Inc. of Concord, New Hampshire. Sanborn, Head has provided services to
6 the Company with respect to its existing LNG and propane facilities for many years and
7 has an excellent relationship with our Operations and Engineering teams. Sanborn, Head
8 also designed and engineered the largest, non-utility, LNG facility in New England for
9 OMYA, Inc. in Florence, VT. EnergyNorth has also been working closely with Algas-
10 SDI, a world leader in decompression technology for the CNG market. Both Algas-SDI
11 and Sanborn, Head have drafted plans for a new LNG/CNG facility in our Keene
12 Division with an initial capacity of 300,000 annual dekatherms (ADTH), scalable up to
13 550,000 ADTH. EnergyNorth will be utilizing these plans as representative of a mid-size
14 “off pipeline” system, such as Keene, and other potential areas to which EnergyNorth
15 may expand service.

16 **Q. What does EnergyNorth perceive to be the potential market/load in Hanover and
17 Lebanon and how does that impact the facility design?**

18 A. The Company believes the potential market in Hanover and Lebanon to be on the order
19 of 1.3 to 1.6 billion cubic feet (Bcf) of annual load. The Company has been in discussions
20 with three large anchor customers that alone would represent 1 Bcf of this annual load.
21 Utilizing data gathered from our Keene Division and similar communities within

1 EnergyNorth's existing service territory with similar demographics, the Company
2 believes there is an opportunity of 300,000 to 600,000 ADTH in addition to the 1 Bcf of
3 anchor customer load. The Company is working with these three large potential
4 customers to determine their individual fuel storage preferences in order to fully design
5 the facility. EnergyNorth will acquire control of a parcel of land that would be capable of
6 obtaining all required permits for the final design of a facility. This would include full
7 vapor dispersion modeling, and all required federal, state and local permits. However,
8 due to the uncertainty of the timing of these customers connecting to the system,
9 EnergyNorth would optimize capital expenditures by adding vaporizers, decompression
10 and storage as customer additions warrant.

11 **Q. How does EnergyNorth plan to procure and treat the fuel purchases for the**
12 **Hanover/Lebanon franchises?**

13 A. EnergyNorth's plan is to procure the fuel for the Hanover/Lebanon franchise area
14 consistent with its Least Cost Integrated Resource Plan, through an open request for
15 proposal (RFP) process and treat it as a pass-through cost, without mark-up to the
16 customer. For more information on the procurement process and rate treatment please see
17 the testimonies of Mr. DaFonte and Mr. Mullen.

18 **Q. How do the economics compare to alternative fuels?**

19 A. The savings from oil and propane when compared to LNG and/or CNG can be
20 compelling. For a comparison of oil and propane to First Tier pricing for utility natural

1 gas service in New Hampshire please see Attachment WJC-3. First Tier pricing reflects
2 the higher distribution charge associated with the first terms used per billing cycle. It
3 also includes the COG as well as the Local Distribution Adjustment (“LDAC”) charge.
4 See the testimony of Mr. Mullen for more on this. As you can see from the chart, there is
5 the potential for significant savings when utilizing natural gas versus other alternatives.
6 Even when allowing for the increased costs of liquefaction, compression, delivery and
7 facility construction, there is potential for significant savings to the customer.

8 **Q. Are there customers in the Lebanon and Hanover area that are currently utilizing**
9 **LNG and/or CNG?**

10 A. Yes, I am aware of two customers in Lebanon utilizing CNG, and another that is utilizing
11 LNG. Dartmouth Hitchcock Medical Center and Pike Industries are currently utilizing
12 CNG and Kleen Laundry is utilizing LNG. See Attachment WJC-4. All three of these
13 customers have substantial annual usage.

14 **Q. What advantage could these customers gain by connecting to a centrally located**
15 **EnergyNorth facility via an underground distribution network?**

16 A. EnergyNorth believes there are several advantages to receiving gas through its utility
17 model. The first advantage would be participation in the Company’s award winning
18 CORE energy efficiency programs. Since these customers would be contributing to the
19 program through the LDAC charge, they would qualify for all of EnergyNorth’s general
20 and custom rebate programs. These programs would assist the customers with reducing

1 their consumption, lowering their energy bills and reducing their carbon footprint. A
2 second advantage would be lower commodity costs due to increased purchasing power
3 that will be realized by aggregating their fuel purchases with all customers connected to
4 the system through the Company's Energy Procurement department. The Company will
5 be purchasing fuel for its entire system, which should result in reduced pricing through
6 economies of scale. The fuel pricing paid will directly pass-through, without mark-up to
7 the customer, as is the case with EnergyNorth currently. Another advantage would be the
8 release of valuable real estate on the customer's property, which is currently utilized for
9 LNG storage or CNG trailer decompression. This real estate could be utilized for
10 increased parking, facility expansion or other beneficial purposes. Removing the truck
11 traffic required for direct service should also result in better logistics and reliability for
12 customers and employees at each location. Since each customer currently has a single
13 fuel source, they will benefit from fuel diversification in the form of both LNG and CNG
14 as proposed by the company as part of a centralized distribution system and supply
15 network. Being reliant on a single fuel supply exposes customers to the price vagaries
16 inherent in each individual fuel source while a mix of fuel sources provides optionality
17 and mitigates the price risk of any one-fuel source. Lastly, the customers will benefit
18 from the considerable resources which the Company has available to it and which it will
19 bring to bear in servicing customers in the Hanover and Lebanon area.

1 **Q. Could there be other safety enhancements with a centrally located EnergyNorth**
2 **facility?**

3 A. Yes. The EnergyNorth facility will fall under the oversight of the Safety Division of the
4 New Hampshire Public Utilities Commission and will be subject to all inspections and
5 reporting currently in place under the EnergyNorth tariff and PUC rules. This added level
6 of scrutiny should result in the safest facility in operation. Another potential enhancement
7 is a reduction in reliance on local public emergency personnel to respond to situations at
8 various locations. The Company has, and will add, local, trained employees that can
9 respond to an emergency in the same manner and timelines as currently stipulated in the
10 EnergyNorth tariff.

11 **Q. How would new commercial and residential customers benefit from EnergyNorth's**
12 **centralized facility?**

13 A. Large commercial customers that have a load profile which would otherwise warrant
14 conversion to CNG, but do not have the available physical space required to construct a
15 decompression terminal(s) at their facility, would be able to receive service through an
16 underground service line, a service riser and meter, with minimal space utilization and
17 disruption. There may also be savings for these new commercial customers from
18 socializing the construction and equipment costs of a larger, more efficient central
19 facility, rather than bearing the cost of a stand-alone, individual facility. Due to the costs
20 associated with trailers and decompression units, CNG is usually uneconomical for
21 customers utilizing less than 50,000 Dth of gas annually. That leaves small and mid-size

1 commercial customers and all residential customers that do not have access to pipeline
2 natural gas with few options. These customers, due to their relatively small size, also face
3 higher oil and propane costs than the much larger industrial and commercial customers
4 do. EnergyNorth's facility would open a new supply option to these customers, as well as
5 energy efficiency programs and the convenience of having their fuel piped directly to
6 their home or business. As stated above, these customers would also have access to
7 Liberty's award winning CORE energy efficiency programs and be served by a safety
8 award winning utility. See Attachment WJC-5.

9 **Q. Please describe EnergyNorth's customer acquisition processes and the resources**
10 **committed to new customer growth.**

11 A. Within the last two years, EnergyNorth has expanded its Sales and Marketing department
12 to nine full time employees from a previous level of three. This includes two commercial
13 and industrial account managers along with three residential sales representatives. In
14 addition, Liberty Utilities has a hired a marketing coordinator/analyst which greatly
15 enhances the Company's ability to reach existing and potential customers in a timely and
16 efficient manner.

17 Within EnergyNorth's existing franchise territory the Sales and Marketing team utilize
18 various methods to acquire new customers. The team has identified all potential
19 customers who currently reside within 100 feet of an existing gas main, customers who
20 live within a franchise town but require a main extension for service, and all customers

1 that currently have an active gas meter but do not utilize natural gas for heating. Liberty
2 actively communicates with these customers via various methods depending on the
3 situation. The Sales and Marketing manager will also utilize third party data to update the
4 prospects list and offer conversion incentives at various times of the year. Other effective
5 methods of customer acquisition have been meeting with City and Town engineers to
6 assess timing of DPW projects and street repaving projects, along with neighborhood open
7 houses in targeted areas to explain the conversion process to customers residing in
8 neighborhoods that have expressed interest in extension of gas service.

9 Other than existing customer data, the Liberty Sales and Marketing team will utilize all of
10 these available resources in Hanover and Lebanon to ensure a robust growth rate is
11 achieved and customers have access to natural gas as expeditiously as possible.

12 **Q. What is the timing to provide service to Hanover and Lebanon?**

13 A. EnergyNorth has narrowed the possible location of the fueling facility to a few locations
14 within the City of Lebanon and plans to have site control shortly. The Company is
15 prepared technically and financially to move forward with facility construction upon
16 receipt of all required federal, state, municipal and regulatory approvals. EnergyNorth
17 fully expects construction of both the fueling facility and underground distribution
18 system to commence in 2016. The company will also be utilizing temporary LNG or
19 CNG trailers in certain areas while the local distribution system is being built out in order
20 to serve customers in a more timely manner.

1 **Q. Is this project consistent with the State’s Energy Strategy?**

2 A. Yes, EnergyNorth’s franchise expansion to Hanover and Lebanon through an “off
3 pipeline” satellite local distribution system is consistent with the 2014 New Hampshire
4 10-Year State Energy Strategy on several levels. The State Energy Strategy states in
5 section 5.4.4 Natural Gas: “As indicated in the Business as Usual forecast, natural gas
6 currently provides 16% of residential heating needs, 44% of commercial thermal needs
7 and 54% of industrial thermal needs. In total, only 51 New Hampshire cities and towns
8 have access to natural gas, and the state’s two gas utilities, Unitil and EnergyNorth, only
9 serve approximately 117,000 customers.” See Attachment WJC-6. A major contributor to
10 these low saturation rates is access to natural gas pipelines. TGP owns and operates the
11 Concord Lateral transmission pipeline, which supplies gas to approximately 90,000
12 EnergyNorth customers. The Portland Natural Gas Transmission System (“PNGTS”)
13 pipeline crosses the northern part of the state and crosses into Maine. EnergyNorth has a
14 single interconnection to the PNGTS pipeline in Berlin which is used to supply natural
15 gas to EnergyNorth’s Berlin franchise area. Unitil supplies natural gas to customers along
16 the seacoast through a combination of the TGP, PNGTS, and Granite State Gas
17 Transmission pipeline systems. Lack of pipeline access in many other parts of the state
18 forces residents and businesses to procure more expensive and possibly less cleaner
19 burning fuels. The State Energy Strategy recommends fuel diversity strategies. A
20 centrally located facility, supplied by LNG and CNG, connected to a network of local
21 distribution piping is consistent with this diversity strategy. There are currently two LNG

1 import facilities in New England: the Canaport LNG terminal owned and operated by
2 Repsol in New Brunswick, Canada, and the Distrigas terminal owned and operated by
3 GDF-Suez in Everett, Massachusetts. However, only the Distrigas terminal offers trucked
4 LNG. Others currently offering trucked LNG include Gaz Metro in Montreal, Canada,
5 and UGI Corp of Reading, Pennsylvania. In addition to these facilities, there are multiple
6 proposals for new facilities in various stages of development in the Northeast and New
7 England. As stated previously, there will be seven CNG facilities in operation by winter
8 of 2015 in New England. These facilities are connected to various transmission pipelines
9 in New Hampshire, Maine, Massachusetts, Vermont and New York. These varied options
10 certainly constitute a diverse supply chain option that EnergyNorth could tap through
11 competitive bidding, and as a result, its strategy is consistent with the State Energy
12 Strategy.

13 Another recommendation of the State Energy Strategy is “reducing usage through
14 efficiency and conservation.” See Attachment WJC-6. By participating in EnergyNorth’s
15 energy efficiency programs, these “off pipeline” customers would have significant
16 incentives and rebates available to assist in conservation measures. Finally, Sub-
17 Recommendation 13.B Monitor Development of Trucked CNG of the State Energy
18 Strategy notes that some areas are simply too remote to expand to with traditional
19 distribution expansion, yet the demand for natural gas in these areas is great. “The State
20 should encourage targeted, strategic installations of trucked CNG in areas where the
21 impact will be maximized. The State should monitor these developments and work to

1 clarify and simplify the permitting processes for such installations.” See Attachment
2 WJC-6. A centrally located facility connected to a local distribution network like this
3 EnergyNorth proposal would maximize the benefit to a region and reduce the impact to
4 the community as well.

5 **Q. Does this conclude your testimony?**

6 A. Yes, it does.