

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

Docket No. DG 14-\_\_\_

Liberty Utilities (EnergyNorth Natural Gas) Corp.

**DIRECT TESTIMONY  
OF  
FRANCISCO C. DAFONTE**

May 19, 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 Sr. Director in July  
16 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  
21 Business Council.

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

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

7  
8 **Q. Mr. DaFonte, what is the purpose of your testimony in this proceeding?**

9 A. The purpose of my testimony is to present the Company's proposal to modify its existing  
10 commodity hedging program to better stabilize the cost of natural gas supplies acquired to  
11 serve its customers. Further, my testimony will discuss the continuation and modification  
12 of the Company's Fixed Price Option (FPO) program. The Company is seeking approval  
13 by the Commission to implement the modified hedging plan this summer for effect in the  
14 peak winter period of 2014-2015.

15  
16 My testimony provides an overview of the current commodity hedging program, the  
17 historical performance of the program, recent market trends along with gas commodity  
18 hedging and describes in detail the specific program EnergyNorth is seeking to implement  
19 on behalf of its customers.

1 **Q. Mr. DaFonte, can you provide a general overview of the Company's current**  
2 **hedging program?**

3 A. Yes. The Company's current program, which was approved by Commission Order  
4 25,094, uses various financial risk management tools and underground storage in order to  
5 provide more price stability in the cost of gas to firm sales customers and to fix the cost  
6 of gas for participants in the Company's FPO Program. It is not intended to achieve  
7 reductions in customers' overall gas costs.

8  
9 The Company may use derivatives (swaps, call and put options) and/or physical supplies  
10 to hedge the price for a portion of its gas supply portfolio for the period from November  
11 through April of each year<sup>1</sup>. The Company may use a combination of financial hedges,  
12 storage withdrawals and fixed price contracts to hedge a monthly target hedge percentage.  
13 The purchase and sale of derivatives may be either physical or financial.

14  
15 The peak period hedge target volume is determined using the specific monthly hedge  
16 percentages listed below as a portion of the Company's total firm sales forecast for each  
17 month listed. The total volume hedged includes financial, fixed price contracts and  
18 storage volumes and is based on a percentage of the most recent firm sales forecast, as of  
19 March 1st of each year, prior to the start of the execution of the strategy for a given  
20 period. Hedge volumes may be revised based on the most recent firm sales forecast as of

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<sup>1</sup> The Company terminated its hedging for the months of October and May per the Commission's order in DG 13-251.

1           October 1st. If the hedge volume changes by more than 5%, based on the new forecast,  
2           then the remaining execution volumes are adjusted proportionately for the remainder of  
3           the term of the strategy starting in November. The total financial hedge volume will be  
4           calculated as the firm sales volumes multiplied by the volume target below minus  
5           forecasted storage withdrawals minus fixed priced physical contracts.

6  
7           The following monthly hedge percentages are used to set the total hedge volume target<sup>2</sup>:

8		
9	November	25%
10	December	33%
11	January	33%
12	February	33%
13	March	33%
14	April	25%
15		

16   **Q.   Mr. DaFonte, has the hedging program worked as intended?**

17   A.   Yes. Since its inception, and through subsequent revisions, the program has insulated  
18       customers from significant price volatility during periods when natural gas prices  
19       fluctuated considerably, as was its intention. However, the cost to provide this stability  
20       has been significant; over the last 10 years, the various New York Mercantile Exchange  
21       ("NYMEX") hedging programs employed by EnergyNorth have resulted in total net  
22       losses of over \$65,000,000. As shown in the table below, the majority of the losses came  
23       during periods of extreme volatility when it is more expensive to purchase "insurance" in  
24       the form of hedges in the market. However, 2008/2009 as the NYMEX volatility began to  
25       decrease along with futures prices, the costs to hedge also decreased and thus the losses

1 were less significant. In fact, there were modest gains this past winter with the slight run  
 2 up in the NYMEX.

<b>EnergyNorth Natural Gas</b>		
<b>10-Year Actual Hedging (Gain)/Loss History</b>		
<b>For the Ten Years Ending Winter 2013/2014</b>		
<u>Year</u>	<u>Docket</u>	<u>(Gain)/Loss</u>
2013/2014	DG 13-251	\$ (1,184,841)
2012/2013	DG 12-265	\$ 2,031,210
2011/2012	DG 11-192	\$ 6,802,122
2010/2011	DG 10-230	\$ 8,380,371
2009/2010	DG 09-162	\$ 14,539,907
2008/2009	DG 08-106	\$ 21,454,126
2007/2008	DG 07-093	\$ 7,634,496
2006/2007	DG 06-121	\$ 14,580,576
2005/2006	DG 05-141	\$ (6,715,079)
2004/2005	DG 04-152	\$ (1,924,464)
	Ten-year Net	\$ 65,598,424.00

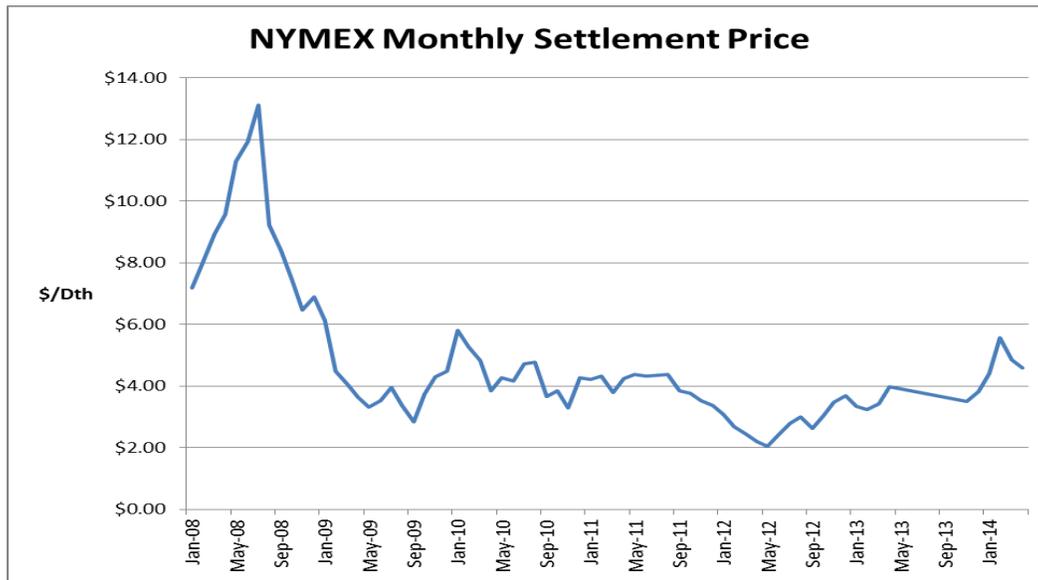
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<sup>2</sup> The volume targets were reduced by 50% per the per the Commission's order in DG 13-251.

1 **Q. Mr. DaFonte, Could you illustrate what has happened to natural gas futures prices**  
2 **since 2008?**

3 A. As shown in the graph below, the NYMEX reached a peak price of approximately \$13.00  
4 per Dth in 2008. Since that time, the NYMEX futures prices have dropped precipitously.  
5 In fact, Since January 2009, the average settlement price for the NYMEX has been  
6 approximately \$3.85 per Dth.

7



8

9 With the clear lack of price volatility, hedging of the NYMEX would have little benefit to  
10 consumers. As further evidence of the continued projected stability in the NYMEX  
11 natural gas futures market, as of May 6, 2014 the first future month that was trading over  
12 \$5.00 on the NYMEX was January 2020.

13

1 **Q. Mr. DaFonte, to what do you attribute this decline in NYMEX natural gas prices**  
2 **and price volatility?**

3 A. The single most influential factor in the reduction and stability of natural gas prices has  
4 been the emergence of shale gas in both the supply area and the market area. The  
5 proliferation of shale gas has led directly to numerous pipeline projects being constructed  
6 to deliver these volumes into the market and has also forced some pipelines to reverse  
7 flow on their systems and move gas back into the Gulf Coast, which had traditionally  
8 been the source of natural gas flow into major markets in the Northeast.

9

10 **Q. Mr. DaFonte, does the current hedging program help to minimize price spikes in the**  
11 **New England Market area?**

12 A. No. The current hedging program is intended to minimize price volatility with regard to  
13 supply area purchases. In fact, all Over-the-Counter (OTC) swaps and options entered  
14 into by the Company for its hedging program are based on the Henry Hub pricing point  
15 for natural gas futures contracts located in the supply area in Louisiana. The Henry Hub  
16 price and correlating NYMEX price is seen as setting the “basis” price for the North  
17 American natural gas market. As such, any purchases made in the market area, such as  
18 New England, must reflect the cost to deliver the gas to the ultimate purchase location,  
19 known as the “basis differential” from the Henry Hub or NYMEX. This basis differential  
20 is also impacted greatly by any pipeline restrictions or limitations in getting gas to a  
21 specific market area relative to the demand in that market area. This is the case in the  
22 capacity constrained New England market and is the primary reason why natural gas

1 prices spiked up to and remained at all-time highs in the New England market this past  
2 winter. Simply put, there is much more demand than pipeline capacity available to serve  
3 the New England market during the peak winter periods and the current hedging of  
4 supply area purchases does nothing to address this market area volatility.

5  
6 To summarize, while the current hedging program focuses on minimizing futures price  
7 volatility, it cannot hedge against price spikes attributable to a run up in the basis  
8 differential. As a result, the current hedging program does not provide value to the  
9 Company's customers.

10  
11 **Q. Mr. DaFonte, how has the volatility in the NYMEX compared to the volatility in the**  
12 **market area basis?**

13 **A.** As shown in the chart below comparing the NYMEX to the basis differential over the  
14 past 2 years, the basis has been much more volatile and the trend lines indicate a pattern  
15 of escalation never before seen in the New England market.

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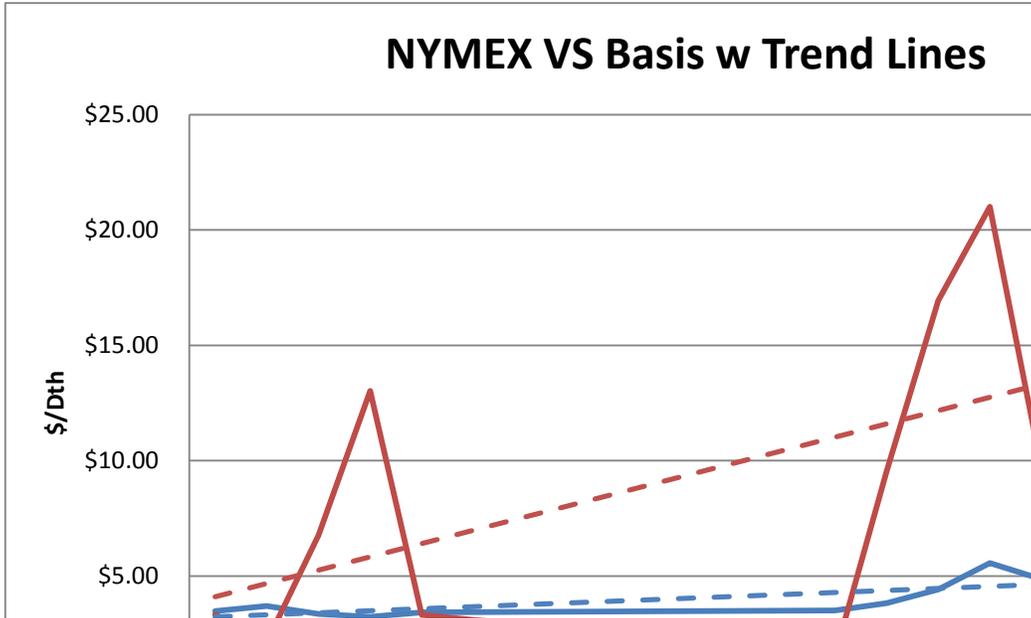
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For the winter of 2013-2014, the basis differential in the New England market escalated precipitously from \$1.57 in November to an all-time high of \$16.94 in January only to be surpassed by a new all-time high of \$21.00 in February. At the same time the NYMEX price escalated from \$3.50 in November to a peak of \$5.56 in February. The increase in the basis of roughly \$19.50 from November to February dwarfed the corresponding increase in the NYMEX for the same period of \$2.00. This approximately nine-fold increase relative to the NYMEX had a much more significant impact on customer rates than the NYMEX escalation. Moreover, while the Henry Hub spot price peaked at around the \$8.00 level, the New England spot prices were peaking over \$90.00 per Dth. These severe basis differential price spikes are clear indicators that a capacity shortfall exists in the New England market.

1 **Q. Mr. DaFonte, given that the hedging of futures prices does not in and of itself**  
2 **minimize price spikes attributable to basis differential increases, would you**  
3 **recommend any modifications to the current hedging program?**

4 A. Yes. Overall, it is my opinion that the hedging program as currently constituted does not  
5 provide customers with meaningful benefits. Currently, customers are paying for the  
6 option premiums (insurance against escalating prices) used to hedge future firm purchases  
7 at the NYMEX/Henry Hub index price and since there has been very little volatility, the  
8 options typically expire “out of the money” and customers do not see any offsetting  
9 benefit to the premiums they are paying. In addition, any hedges entered into using OTC  
10 swaps, which do not have a specifically identified premium, have been settling above the  
11 market causing a net payout at settlement to the swap counterparty. In effect, customers  
12 are paying for a hedging program that was developed to manage natural gas price  
13 volatility at a time when natural gas supplies were tight and gas prices fluctuated  
14 considerably. More recently, the market dynamics have changed with the increase of  
15 Shale gas production and the volatility in the NYMEX/ Henry Hub futures has been  
16 muted and shows continued signs of stability through 2020.

17  
18 The Company proposes to eliminate the current hedging program which focuses  
19 exclusively on the hedging of the NYMEX/Henry Hub futures contracts. In its place, the  
20 Company would propose to begin hedging the New England basis via the very  
21 straightforward purchase of physical fixed basis supply contracts commencing with the  
22 winter of 204-2015.

1 **Q. Mr. DaFonte, please explain how the Company propose to physically hedge the basis**  
2 **differential?**

3 A. The Company currently issues a Request for Proposal (RFP) prior to each winter period  
4 for the purpose of determining a low cost bidder for its supply purchase requirements.  
5 Historically, the bidders have provided the Company with index based pricing for all  
6 purchases, whether in the Gulf Coast, the Canadian border or in the market area. It would  
7 be the Company's intention to conduct an RFP specifically for market area supplies that  
8 would require the bidder to submit a fixed price basis to the NYMEX for all baseload  
9 market area supplies required by the Company to satisfy its firm customer needs  
10 throughout the winter period.

11  
12 The RFP would be issued early in the summer period and would provide the Company  
13 with sufficient time to analyze all proposals and select one or more suppliers for the  
14 baseload service.

15  
16 **Q. Mr. DaFonte, what percentage of overall normal winter requirements would be**  
17 **hedged under the Company's proposal?**

18 A. Under normal weather conditions, the Company purchases approximately 1.5 Bcf of  
19 baseload market area supply which would be hedged under the Company's proposal. This  
20 makes up approximately 14% of all normal winter supply requirements. When combined  
21 with the Company's underground storage which is also physically hedged through ratable  
22 storage injections through the summer and its LNG and propane storage, the total hedged

1 volumes would be projected to be approximately 4.2 Bcf or 40% of normal winter period  
2 requirements. Further, during the coldest and typically more volatile months of  
3 December, January and February, the total hedged basis and storage volumes would  
4 equate to approximately 57% of all normal winter purchase requirements during those 3  
5 months.

6  
7 **Q. Mr. DaFonte, would this modified hedging program address all of the volatile**  
8 **market area purchases required by the Company during a typical winter period?**

9 A. No. Nearly 50% of the Company's pipeline capacity portfolio is comprised of New  
10 England market area capacity with a primary purchase point at Dracut, MA. As discussed  
11 earlier, because the Company must make spot or citygate purchases at the end of the  
12 Tennessee system, it is susceptible to price spikes brought about by the lack of available  
13 capacity and supply in the region. While the Company's hedging proposal is designed to  
14 hedge basis prior to the winter period, it is only feasible to hedge the known baseload  
15 purchase requirements. The Company will still be required to make daily market area  
16 purchases to satisfy changing customer demand due to weather fluctuations. If the  
17 Company could predict the actual market area purchases it would require in a given  
18 month and day, it could physically hedge additional basis. Unfortunately, since the  
19 Company's spot purchases are a function of the weather, it would be impossible to predict  
20 the actual purchases required. That is, without the ability to determine the day and volume  
21 of a purchase, the Company could be over hedged or under hedged on any given day,  
22 which would be considered speculative hedging and would result in significant risk to the

1 Company and its customers. As a result, the Company is not proposing any hedging  
2 program for spot purchases.

3

4 **Q. Mr. DaFonte, do you see the Company's modified hedging proposal as a long-term**  
5 **solution to price volatility in the New England market?**

6 A. No. Since the volatility in the basis differentials in New England is a direct result of the  
7 lack of pipeline infrastructure available to access the abundant shale supplies in the  
8 Marcellus and Utica shale plays, the most logical way to address the market area volatility  
9 is to develop more pipeline infrastructure that accesses these shale supplies. Fortunately,  
10 there are two new proposed pipeline projects that would tap into the shale production and  
11 bring more natural gas supplies into the New England market. These new projects will  
12 help to mitigate much of the volatility in the New England basis differential.  
13 Unfortunately, these projects aren't slated to go into service until 2018 or later. However,  
14 the Company's proposed hedging program is very flexible and can be modified to account  
15 for the timing of these projects as it only contemplates hedging volumes for one year  
16 increments each summer period.

17 **Q. Mr. DaFonte, is the Company proposing to terminate its FPO program?**

18 A. No. The FPO program will continue. However, the Company is proposing to only make  
19 the program available to residential customers as they do not have the ability to choose a  
20 third party supplier since there is no retail competition available to these customers. All  
21 Commercial & Industrial customers do have the ability to choose a third party supplier so  
22 they can sign up with a competitive supplier if they would like a fixed price offering or

1 some other creative supply service that meets their business needs.

2

3 **Q. Mr. DaFonte, how do you propose to establish an FPO rate under the Company's**  
4 **proposed hedging program?**

5 A. The FPO price has historically been based on the filed peak period Cost of Gas rate plus a  
6 premium to recover program costs and to account for the volatility of the unhedged  
7 supply used to serve the FPO customers. The Company proposes to continue to calculate  
8 the FPO rate in this same fashion by first establishing the COG rate for the peak winter  
9 period and then adding a premium to the rate for anyone wishing to sign up for the FPO  
10 program.

11

12 **Q. Mr. DaFonte, would the Company use the same premium to establish the final FPO**  
13 **rate as it has done most recently?**

14 A. No. The Company is proposing an FPO premium that is higher than it has been  
15 historically in order to appropriately reflect the increased volatility in the market area  
16 supply prices. Although the Company's proposed hedging program will help to minimize  
17 the market area basis, as explained earlier, it cannot hedge the daily spot gas purchases  
18 required to meet the demand of its customers due to temperature swings. As was evident  
19 this past winter, the daily spot prices can be extremely volatile and that volatility needs to  
20 be considered in any premium that is established. The Company will propose an  
21 appropriate premium when it files its FPO rate with its peak period COG filing.

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

2 A. Yes, it does.