STATE OF NEW HAMPSHIRE
BEFORE THE
PUBLIC UTILITIES COMMISSION

Docket No. DG 14-180

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities
Distribution Service Rate Case

JOINT DIRECT TESTIMONY

OF

STEPHEN R. HALL

AND

JAMES D. SIMPSON

August 1, 2014

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I. INTRODUCTION AND BACKGROUND

Q. Mr. Hall, please state your name, occupation and business address.

A. My name is Stephen R. Hall and I am employed by Liberty Energy Utilities (New Hampshire) Corp. as Director, Regulatory and Government. My business address is 15 Buttrick Road, Londonderry NH 03053. I am responsible for rates and regulatory affairs for Liberty Utilities (EnergyNorth Natural Gas) Corp. ("EnergyNorth") and Liberty Utilities (Granite State Electric) Corp. and I have supervisory responsibility for government affairs at the companies.

Q. Mr. Hall, have you previously testified before the New Hampshire Public Utilities Commission (the "Commission")?

A. Yes, I have testified extensively before the Commission during my 34-year career at Public Service of New Hampshire and more recently on behalf of Liberty Utilities. My testimony has covered a wide range of regulatory, ratemaking and pricing issues, including testimony in support of many special contracts.

Q. Mr. Simpson, please state your name, address and position.

A. My name is James D. Simpson. I am a Senior Vice President with Concentric Energy Advisors, 293 Boston Post Road West, Suite 500, Marlborough, Massachusetts 01752. My professional qualifications and experience have been provided in Attachment RATES-11.

Q. Mr. Simpson, have you testified previously before the Commission?

A. Yes, I testified on behalf of Northern Utilities ("Northern") in Northern's 2013 rate case in support of a proposed alternative rate plan; recently, I also testified on behalf of Northern in several Cost of Gas proceedings.[1] In addition, while I was employed by Bay State Gas Company, I testified before the Commission on behalf of Northern Utilities in many proceedings on a variety of issues related to rates, growth-related projects and other economic and regulatory matters.

Q. What is the purpose of this testimony?

A. The purpose of this testimony is to (a) explain the development of weather normalized calendar year billing determinants and base revenues for rate design and (b) present and support the calculations and analysis related to the Company's proposed rates, including typical bill impact analyses.

II. TEST YEAR SALES REVENUE PROOF

Q. Please explain the purpose of the test year sales revenue proof.

A. The purpose of the test year sales revenue proof is to verify that the actual customer counts and delivery volumes recorded in the Company's records are accurate and suitable for use in developing the weather normalized calendar year billing

[1] (a) 2009 Summer Cost of Gas ("COG") proceeding, Docket No. DG 09-052; (b) 2009 / 2010 Winter COG proceeding, Docket No. DG 09-167; (c) 2010 Summer Cost of Gas proceeding, Docket No. DG 10-050, (d) 2010 / 2011 Winter Cost of Gas proceeding, Docket No. DG 10-250; and (e) 2011 Summer Cost of Gas ("COG") proceeding, Docket No. DG 11-045.

determinants used to determine proposed rates and revenues in this proceeding.

Q. Attachment RATES-1, page 2, indicates that the actual booked margin for the test year is $54,984,777. Have you proven that the actual bills and volumes from Attachment RATES-1, page 1, applied to the currently approved base rates will produce this margin?

A. Yes. Attachments RATES-1 and RATES-2 contain a summary of the revenue proof calculation that compares the base revenues on the Company's books with the base revenues derived by applying the approved base rates against the actual bills and volumes for the test year. The results of that calculation are summarized on Attachment RATES-1, pages 2-3. As shown on page 3, the calculated base revenue differs from the booked base revenue by only $20,672, which is less than 0.1 percent.

III. WEATHER NORMALIZATION ADJUSTMENT

Q. Please explain the rationale for the weather normalization adjustment.

A. Based on prior Commission decisions and consistent with the practice in many other jurisdictions, the Company's rates are established using weather normalized billing determinants, not actual test year volumes. This is because gas utility net revenues are extremely sensitive to weather conditions, and therefore revenue requirement and rate design activities are typically structured to allow a reasonable expectation of earnings under the presumption of normal weather conditions. As a

result, in order to establish the Company's proposed rates, it is first necessary to adjust the actual test year sales volumes and base revenues to generate billing determinants and calculate base revenues that could reasonably be expected to have occurred under normal weather conditions.

Q. Was the weather warmer or colder than normal during the test year?

A. Using the average of the last thirty years of degree day data as measured at the Manchester, New Hampshire weather station as the standard for normal, the test year was 410 degree days or 6.5% percent colder than normal in the Company's service territory.

Q. Describe the proposed adjustment to sales and revenues to account for the colder than normal weather experienced during the test year?

A. Calculations indicate that test year deliveries were roughly 7.97 million therms greater than they would have been if the weather had been normal during the test year, as shown on Attachment RATES-2, page 4. As shown on Attachment RATES-3, page 2, if one assumes decreased deliveries in this amount, the Company's base revenues would have been $1,645,434 lower in a normal year compared to actual revenues.

Q. Have you prepared schedules to support your weather normalization adjustment?

A. Yes, the weather normalization calculation is summarized on Attachment RATES-2 and RATES-3.

Q. Please summarize the methodology that the Company uses to weather normalize sales and revenue data.

A. The normalization technique is the same as that used in the Company's revenue neutral rate case (Docket No. DG 00-063) and the Company's last two rate cases (Dockets Nos. DG 08-009 and DG 10-017). The Company determined the weather normalization adjustments to calendar month sales for each rate class by identifying the temperature-sensitive portion of sales for each class and calculating how much more or less the monthly sales would have been to that class if weather had been normal. The weather normalizing adjustments to revenues are determined by identifying the average incremental base rate charged to each rate class in each month. This rate is based on the rate block where the class's average use per meter ends, for the base rate schedule applicable to the rate class. The price of the block in which the average use falls is used as the incremental rate. The product of the incremental rate and the weather normalizing adjustment to sales for each rate class equals the monthly revenue adjustment for the class.

Q. How did you determine sales and revenues on a calendar month basis to begin the weather normalization calculation?

A. We followed the method approved in the Company's last fully litigated rate case, Docket No. DR 91-212, which was the same methodology used in the settlements approved in Dockets Nos. DG 08-009 and DG 10-017. Each month, the calculation starts with system sendout data and subtracts all company use and unaccounted for gas to determine total calendar month firm deliveries. The Company determines the unaccounted for gas by applying the average annual unaccounted for percentage to the total monthly firm sendout. The calendar month firm deliveries are then allocated to each individual firm rate class based on a rolling two-month average of class sales to total deliveries. The amount of gas that has been delivered but not yet recorded for billing purposes, known as unbilled volume, is calculated simply as the estimated calendar month deliveries less the actual billed deliveries.

Q. Why didn't you do your weather normalization based on billing month data?

A. The decision to use calendar month data was based on three factors. First, calendar month data is used because it allows for a matching of the costs incurred and associated revenues for a given month in accordance with generally accepted accounting principles, which permits a more appropriate comparison between delivery and sendout data. Second, the Company currently bills on a service rendered basis where price changes occur at the start of a calendar month; thus, calendar month data permits easier and simpler calculation of revenues. Third, the

calendar month method was used in the Company's last three base rate cases, as approved by the Commission.

IV. PRO FORMA BASE REVENUE ADJUSTMENT

Q. Why has the Company proposed a pro forma base rate revenue adjustment?

A. On July 1, 2014, the Company implemented new base rates for the recovery of approved costs under the Company's Cast Iron/Bare Steel Program in accordance with Order 25,684 issued in Docket No. DG 14-041. Since the test year books reflect these costs while the test year revenues do not, it is necessary to include a pro forma adjustment to reflect the revenue difference between current rates and test year rates. This adjustment will increase test year revenue to the level in effect on July 1, 2014.

Q. Please describe how the Company calculated pro forma base rate revenue adjustment.

A. The Company calculated the revenue adjustment, an increase of $383,320, by calculating the difference between the calendar month weather normalized test year base revenue with the revenue that would have been generated based on the rates approved in DG 14-041. Please see Attachment RATES-3, page 3, for a summary of this adjustment.

Q. What is the Company's final test year calendar month weather normalized base revenues including the pro forma base rate revenue adjustment?

A. The Company's final test year calendar month weather normalized base revenues including the pro forma base rate revenue adjustment is $54,048,363, which shown on Attachment RATES-3, page 4, line 15.

V. LOW-INCOME DISCOUNT AT CURRENT RATES

Q. Why has the Company calculated the low-income discount at current rates shown on Attachment RATES-3, page 4?

A. The discount for Low-Income Residential Heating Rate R-4 customers is the difference between revenues that would have been produced at Residential Heating Rate R-3 rates and that produced by Residential Heating Rate R-4. Calculating the calendar month weather normalized discount is required for rate design purposes because Rate R-4 prices are derived from the otherwise applicable Rate R-3 prices. The calculation of the calendar month weather normalized discount at current rates is shown on Attachment RATES-3, page 4.

VI. RATE DESIGN INTRODUCTION

Q. Please describe the principles that were followed in designing the Company's proposed rates.

A. The proposed rates represent a balancing of the principles of appropriate rate design, which include, efficiency, simplicity, continuity of rates, fairness between

rate classes and corporate earnings stability.

Q. Please explain your understanding of these principles.

A. An efficient rate structure promotes economically justified use of the Company's sales and distribution services, and discourages wasteful use. As explained in Section VII of this testimony, the results of the Marginal Cost Study (Attachments JDS/MCS-10 and JDS/MCS-11) were used to develop the rate design. Rate design simplicity is achieved if the customers understand what they are being charged - the level of rates and the rate structure. Rate continuity requires that changes to the rate structure should not be abrupt and unexpected; gradual changes to the rate structure should allow customers to modify their usage patterns. A rate design is fair if no customer class pays more than the costs to serve that class. A rate design provides for earnings stability if the Company has a reasonable opportunity to earn its allowed rate of return during the time that the rates are in effect.

VII. CLASS REVENUE REQUIREMENT

Q. What is the revenue requirement that was used to design the Company's proposed base rates to recover?

A. Base rates were designed to recover $69,670,794, which is the sum of (a) the Delivery revenue requirement as supported by the Functional Cost of Service Study ("FCOS") and testified to by Mr. Heintz and (b) the step adjustment of $2,649,554 as supported in the testimony and attachments of Mr. Mullen and Mr. Gorman. As

Mr. Heintz explains in his testimony, the FCOS separates EnergyNorth's revenue requirement into four functions: delivery, direct gas cost, propane and LNG costs, and miscellaneous indirect costs. The proposed base distribution rates were designed to recover the delivery service revenue requirement, as determined by Mr. Heintz, plus the step adjustment.

Q. How did you assign the total Base Revenue Requirement to each of the Company's rate classes?

A. Class revenue targets were based on the results of the marginal cost of service study ("MCS") making adjustments using the Equi-Proportional Method ("EPM") to recover the allowed revenue requirements. As shown in Attachment JDS/MCS-10, the total delivery service marginal cost is $65,050,323. Because the total delivery service marginal cost does not equal the delivery functional costs, the delivery service marginal cost for each rate class was adjusted on a pro-rata basis using the EPM. Because the EPM method adjusts all marginal costs by a uniform percentage, the marginal cost based price signals are preserved. In this context, the marginal cost price signals that include both the overall level of the revenue target for each rate class, and the specific customer charges and variable ("per therm") rates charged to the customers in each rate class. As explained in the following section, the equiproportionally-adjusted delivery service marginal costs, by rate class, were further adjusted to reflect rate design considerations of continuity of rates, and fairness between rate classes.

Q. Have you prepared a schedule that shows how you determined the base revenue target and the proposed rates for each class?

A. Yes. Attachment RATES-5 shows how the class base revenue targets were determined, and the process that was used to determine the final proposed base rates. Attachment RATES-5 consists of the following sections that were included to assist in the rate design process.

- Section A shows proforma test year normalized calendar month revenue detail.
- Section B shows Billing Determinant detail.
- Section C shows the development of class revenue targets.
- Section D shows the development of the proposed rates.

Columns A through L show the data and analysis by rate class and total Company. A detailed line-by-line explanation of the calculations is provided in Column M.

Q. Please explain how you determined class revenue targets.

A. The following process was used to determine class revenue targets:

a. "Current" total class revenues were calculated;

b. "Proposed" total class fully allocated cost revenues were calculated;

c. Class impacts were tested by comparing Current revenues to Proposed revenues; and a rate continuity cap was established to limit the amount of the increase assigned to any one class;

d. Revenue shortfalls that result from the class impact cap were assigned to all other classes; and

e. The final base revenue targets, by class, including equiproportionately-adjusted class marginal costs, class impact caps, and assignments of revenue shortfalls were determined.

Q. Please explain Steps (a) and (b) in the class base-revenue target process.

A. Attachment RATES-5, Section C, shows total proforma revenues by rate class at current rates. To properly calculate proposed discounted rates to the Rate R-4 Residential Heating Low Income rate class, we calculated the revenues that would result if the current Residential Heating R-3 rates had been applied to the Residential Low Income Heating proforma test year billing determinants by adding the calendar month weather normalized discount at current rates as provided in on Attachment RATES-3, page 4 to the Rate R-4 Residential Heating Low Income test year calendar month weather normalized base revenues.

Lastly, Section 3 of Attachment RATES-5 also shows the calculation of total class revenues by applying an Equiproportional Adjustment Factor (Attachment RATES-5, Line 42) to the Total Class Delivery Service Marginal Costs (Attachment RATES-5, Line 32).

Q. Please explain Step (c) in the class base revenue target process, which you have described as testing class impacts by comparing current revenues to proposed revenues.

A. First, we calculated the difference by class between the proforma base revenues and the proposed revenues resulting from steps (a) and (b); this difference is the "Total Potential increase in Base Revenues" that is shown on Line 66 of Attachment RATES-5. We then calculated the percent change, by class, that the Total Potential Increase represents, relative to the current total class revenues that were calculated in Step (a). To maintain rate continuity, the percent increase in base revenues was limited to 120 percent of the total Company increase, 26.20 percent, which is shown in Column L, Line 65 Attachment RATES-5. We determined that 120 percent was a reasonable cap that would promote efficiency by ensuring that the final rates to most classes would represent the cost to serve that class, and that the limited level cost subsidization created by the cap would not unduly distort rate efficiencies.

Q. Please explain Step (d) in the class base revenue target process.

A. The first revenue deficiency dollars were allocated to eliminate potential rate decreases to any classes with a potential decrease. Once we (a) eliminated rate class revenue decreases and (b) increased class revenue requirements to the levels of the equiproportionately-adjusted marginal costs, subject to the constraint that no class could receive an increase that exceeded 120% of the overall Company

increase, the sum of the class revenue targets was less than the delivery service revenue requirement by $$4,383,496 (Attachment RATES-5, Line 75). This revenue shortfall was allocated to all classes that were below the cap by apportioning the shortfall to each of these classes in proportion to their relative contribution to total company test year revenues.

Q. Please explain Step (e) in the class base revenue target process.

A. As the final step, the final base revenue targets for each class were determined by summing the class revenue requirements plus adjustments calculated in steps (a) through (d).

VIII. RATE DESIGN

Q. Please explain how you designed the Company's proposed base rates.

A. The following process was used to design the Company's proposed base rates:

a. The appropriate level of customer charges was determined by
   - Calculating Customer Charge revenues
   - Subtracting Customer Charge revenues from total class revenue target to determine the Quantity-based revenue requirements

b. We determined (a) Winter and Summer variable (per therm) rates and (b) Head Block and Tail Block rates based on rate continuity and marginal cost considerations.

c. Final rates were calculated

d. The revenue shortfall that is associated with the Low Income discount was calculated.

Q. Please explain Step (a) in the rate design process, determining the appropriate level of customer charges.

A. To determine the appropriate level of customer charges for each class, we considered: (1) the marginal customer costs resulting from the marginal cost study; (2) rate continuity; and (3) customer impacts. Based on these considerations we:

- Increased the customer charges for G-41, G-42, G-51, G-52 and G-54 by 10%;
- Set the customer charge for G-53 equal to the proposed G-43 customer charge level; and,
- Increased the residential R-1, R-3 and R-4 customer charges by the overall proposed percent increase in R-1 and R-3 revenues.

Residential customer charges were increased by the overall percent increase in rate class revenues to bring the residential customer charges more in line with the unit marginal costs to the residential classes. Attachment RATES-5 Line 97 demonstrates that the proposed residential customer charges are still significantly less than the unit marginal customer costs. Although Attachment RATES-5 Line 97 also indicates that the proposed C&I rate class customer charges exceed the marginal unit customer costs, the customer charges of the C&I rate classes were

increased by 10 percent, based on rate continuity considerations. Specifically, if we had not increased the C&I rate class customer charges, large gas users in in each of these classes would experience disproportionately large increases, relative to smaller gas users in each of these rate classes.

We then calculated class customer charge revenues by multiplying the proposed customer charges times the test year class customer counts. To determine the therm-based revenue target (the remaining class revenue target to be recovered from delivery variable rates), the class customer charge revenues were subtracted from the class revenue target. (Attachment RATES-5, (Line 90 – Line 101).

Q. Please explain Step (b) in the rate design process, which you described as setting the Summer and Winter rates and Head Block and Tail Block rates.

A. Some of the Company's rate classes have volumetric rates that differ by season and/or by rate block. On a case-by-case basis, we set the rates by season, as appropriate, and/or the rates by block based primarily on rate continuity and rate impact considerations, so that bill impacts at low and high levels of annual use were relatively consistent.

Q. Please explain Step (c) in the rate design process, which you described as calculating final rates.

A. Step (c) is simply the consolidation of the rate design calculations that were made

in Attachment RATES-5, Lines 91 through 117; the final rates are shown in Attachment RATES-5, Lines 118 through 125.

Q. Please explain Step (d) in the rate design process, which you described as calculating the revenue shortfall resulting from the low-income discount.

A. The rate design calculations described to this point are predicated on R-4 Low Income Residential Heat being charged the R-3 rates without discount. To properly demonstrate the proposed rates that will be charged to each rate class, we (a) calculated the revenue shortfall that the discounted low-income rates would produce[2] and (b) calculated the RLIAP component of the LDAC[3] that would be charged to all rate classes, based on test year proforma therms. These calculations are shown in Attachment RATES-5, Lines 126 to 141.

IX. REVENUE PROOF FOR PROPOSED RATES

Q. Has the Company prepared a proof of the revenues that the proposed rates produce?

A. Yes, we have calculated the revenues that the proposed rates would produce, on Test Year proforma Billing Determinants. The calculations, which are presented in Attachment RATES-5, Lines 142 to 153, show that the proposed base rates,

[2] The R-4 revenue shortfall was calculated by multiplying the R-4 billing determinants times the R-3 proposed base rates then multiplying this amount by 60%.

[3] The RLIAP component of the LDAC, $0.0098 per therm, was calculated by dividing the total R-4 revenue shortfall, $1,524,015, by test year total delivery quantity billing determinants.

including Low Income RLIAP revenues produce the base revenue requirement of $69,670,794. This revenue proof includes the RLIAP Revenues (Attachment RATES-5, Line 140) to recover the revenue shortfall associated with the Discounted R-4 rates.

X. INDIRECT GAS COSTS

Q. Has the Company prepared a proof of the revenues that the proposed Indirect Gas Cost rates produce?

A. Yes, we have. As set forth in the Company's Cost of Gas Clause ("COG Clause"), the indirect gas costs, which are determined in Mr. Heintz' FCOS will be recovered from the Company's firm sales customers in the Company's COG rates. As specified in the COG Clause, LNG and LP-related costs are recovered in the Winter COG rate; gas cost-related bad debt expense; gas cost-related working capital expense and other A&G and miscellaneous expense are recovered at an annual rate per therm. We have prepared Attachment RATES-6 to demonstrate the revenues that are associated with these indirect gas costs.

XI. BILL IMPACT ANALYSIS

Q. Have you prepared Bill Impact analyses?

A. Yes, we have prepared Attachment RATES-7 to show monthly bill impact analyses by class and by season for an appropriate range of monthly usage levels. These analyses demonstrate the combined impact of the changed that are being proposed

in this proceeding to (a) base rates; (b) Cost of Gas rates; and (c) the RLIAP component of the LDAC.

Q. Please explain the bill impact calculations in more detail.

A. For each rate class, we calculated monthly bills by season at "Current" rates and at proposed rates. To calculate monthly bills at current rates, we used: (a) the currently effective base rates, (b) the current LDAC, and (c) the current COG rate. To calculate monthly bills at proposed rates, we used (a) the proposed base rates, (b) the current LDAC, adjusted to reflect the effect of the R-4 discounted rates, and (c) the current COG rate, adjusted to reflect the effect of the updated indirect gas costs.

XII. TARIFF CHANGES

Q. Are you proposing any changes to EnergyNorth's tariff?

A. Yes, we are. Tariff NHPUC No. 8 included in this filing contains several proposed modifications. First, we propose closing the Outdoor Gas Lighting rate to new customers. Currently, there is only one customer taking service under this rate. That customer will be grandfathered and the rate will remain available to that one customer, but will be closed to any new customers.

Second, we propose eliminating the Standby Service, 280 Day Sales Service, 280 Day Transportation Service, and Interruptible Transportation Service rate

schedules, since there are no customers taking service under any of these rates, nor have there been for several years.

Third, we are eliminating the Environmental Surcharge – Relief Holder and Gas Restructuring Expense Calculation provisions from the LDAC, since these charges have been fully recovered and therefore are no longer necessary.

Finally, we are adding the Revenue Decoupling Adjustment Clause to the tariff as part of the LDAC. This mechanism is described in separate testimony of James Simpson included in this filing. The RDM revenue per customer targets that are derived from the Company's proposed rates are presented in Attachment RATES-10.

Q. Does this conclude your testimony?

A. Yes, it does.