

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

Docket No. DG 17-048

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

DIRECT TESTIMONY

OF

DAVID B. SIMEK

April 28, 2017

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ATTACHMENTS

Attachment	Title
Attachment DBS-1	Lead-Lag Study Calculations

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1 **I. INTRODUCTION AND QUALIFICATIONS**

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

3 A. My name is David B. Simek. My business address is 15 Buttrick Road, Londonderry,
4 New Hampshire 03053.

5 **Q. Please state by whom you are employed and your position?**

6 A. I am a Lead Utility Analyst for Liberty Utilities Service Corp. (“Liberty”) which provides
7 service to Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities
8 (“EnergyNorth” or “the Company”). I am responsible for providing rate-related services
9 for the Company.

10 **Q. Have you submitted other testimony in this proceeding?**

11 A. Yes. My educational background and qualifications are set forth in the prefiled joint
12 testimony filed with Daniel S. Dane in support of EnergyNorth’s request for a permanent
13 increase on distribution rates.

14 **II. PURPOSE AND OVERVIEW OF TESTIMONY**

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

16 A. The purpose of my testimony is to explain the Company’s lead-lag study, which is used
17 to determine the cash working capital (CWC) requirement. My analysis is supported by
18 the data presented in Attachment DBS-1.

1 **Q. Please define the term “cash working capital” as a rate base component.**

2 A. The term “cash working capital” refers to the net funds required by the Company to pay
3 for goods and services between the time of the cash outlay by the Company for such
4 goods and services and the time revenues are recovered from customers. For the
5 Company, the cost of goods and services includes operations and maintenance (“O&M”)
6 expenses, including labor expenses and non-labor expenses, federal taxes, local taxes,
7 and payroll-related taxes.

8 **Q. How did you derive the cash working capital requirement?**

9 A. The CWC requirement was determined using the results of a lead-lag study, which
10 compares the net difference between the revenue lag and the expense lag. The revenue
11 lag represents the number of days between the time customers receive their service and
12 the time customer payments are made available to the Company. The longer the revenue
13 lag, the more cash the Company needs to fund its day-to-day operations. The expense lag
14 represents the number of days between the time the Company receives goods and
15 services used to provide service, and the time payments are made for those goods and
16 services. The longer the expense lag, the less cash the Company needs to fund its day-to-
17 day operations. Together, the revenue lag and expense lag are used to measure the net
18 lead/lag to determine the CWC requirement, which becomes a component of the
19 Company’s rate base.

1 **Q. Are the results of your lead-lag study an accurate calculation of the Company's CWC**
2 **requirement?**

3 A. Yes. The study provides an accurate assessment of the Company's actual CWC needs
4 during the rate case test year.

5 **III. LEAD-LAG STUDY APPROACH**

6 **Q. Please summarize the results and the approach of the lead-lag study you conducted.**

7 A. The lead-lag study shows a net lag of 26.53 days for the rate case test year January 1,
8 2016, through December 31, 2016. The CWC calculation is based on the result of the
9 lead-lag study, which is then applied to the rate case test year amounts for O&M
10 expenses and taxes.

11 **Q. How did you develop the net lead/lag days in your study?**

12 A. The revenue lag is measured from the time service is provided to customers until the time
13 payment is received from customers. Expense lags are measured from the time a service
14 is provided to the Company until payment is made by the Company for that service.
15 These lags are measured in days, converted to dollar-days, and summarized for each
16 element in the lead-lag study. The difference between the revenue lag and the expense
17 lag determines if there is a net revenue lag (revenue lag days are greater than the expense
18 lag days for a component) or a net expense lead (revenue lag days are less than the
19 expense lag days for a component).

1 **Q. Please describe the results of your lead-lag study.**

2 A. The results show the total number of revenue lag days and expense lag days for the
3 Company during the CWC test year. The net difference between the computed revenue
4 lag days and expense lag days was then multiplied by the average daily revenue
5 requirements of the system to produce the net cash working capital required by the
6 Company.

7 **IV. REVENUE LAG**

8 **Q. Please describe the components of the revenue lag.**

9 A. Revenue lag consists of three components: (1) the service lag; (2) the billing lag; and (3)
10 the collection lag. The total number of days produced by the three components
11 represents the amount of time between providing utility service to customers and the
12 receipt of the related revenues for such service. Together, these revenue lag components
13 comprise the total revenue lag days.

14 **Q. What is the service lag?**

15 A. The service lag represents the midpoint of the service period, *i.e.*, the time between the
16 start of the billing month and the end of the billing month. My approach is to rely on the
17 midpoint of the service period, which assumes that service will be provided evenly over
18 the service period.

1 **Q. What is the billing lag?**

2 A. The billing lag is the time between the cycle bill read date and the date bills are sent to
3 customers. The billing lag begins the day the bill is read and ends with the recording and
4 mailing of the customer bill. This lag includes the process for review and validation of
5 usage and billing.

6 **Q. What is the collection lag?**

7 A. Collection lag reflects the time between recording and bill mailing for the services
8 rendered and the receipt of payment from customers for the revenues billed. The
9 collection lag was determined by the accounts receivable turnover ratio method. This is
10 calculated by taking the average accounts receivable balance divided by the average daily
11 revenues for the test year.

12 **Q. What is the total revenue lag component for the lead-lag calculation?**

13 A. Each of these revenue lag components was totaled to arrive at the total revenue lag of
14 56.08 days, as shown on Attachment DBS-1, Page 2.

15 **V. EXPENSE LAG**

16 **A. Operation and Maintenance Expenses**

17 **Q. How did you determine the expense lag days for O&M expenses?**

18 A. I separated total system expenses into three groups: (1) regular payroll costs; (2) annual
19 incentive payroll costs; and (3) third-party O&M expenses. I measured the expense lag

1 days for each of these groups independently. A summary of the O&M expense lag is
2 shown on Attachment DBS-1, Page 5.

3 **Q. How were the lag days for the payroll expenses determined?**

4 A. I based the expense lag days for payroll on the Company's wage payment process, which
5 pays employees on a bi-weekly or weekly basis. I calculated the expense lag days for
6 payroll costs by determining the average days of service being paid and adding the
7 midpoint of the service period to the number of days between the end of each service
8 period and the date of payment to employees. This calculation produced the number of
9 total days between the middle of the period for which employees' wages are recorded and
10 the date on which payments are disbursed. These calculations were based on actual
11 historical Company data for the CWC test year. Holidays are also based on actual
12 historical data for the CWC test year.

13 **Q. Did you make any adjustment to the payroll lag days in your lead-lag study?**

14 A. Yes. I made an adjustment for vacation pay, which recognizes that vacation pay is
15 earned before it is actually taken. The vacation pay adjustment is calculated based on the
16 average payroll lag days and the midpoint of the days in the year.

17 **Q. How were the lag days for the annual performance incentive determined?**

18 A. The Company's annual incentive pay is paid in the second quarter for the preceding
19 calendar year. The lag days were determined based on the midpoint of the performance
20 period and the date the incentives were paid.

1 **Q. How were the lag days determined for third-party O&M expenses?**

2 A. I based the measure of expense lag days for the expenses in this group on a sampling of
3 these expenses for the test year. I then identified the sample invoices that were larger
4 than \$50,000 and reviewed the invoice to see if a service period could be identified. If
5 the service period was identified then the mid-point of the service period and the payment
6 date were used to calculate the expense lag for third-party O&M expenses. If no service
7 period was identified I then used the invoice date and the payment date to calculate the
8 expense lag for third-party O&M expenses. The invoice date was also used for all
9 invoices that were not included in the sample. Since the sample included only invoices
10 larger than \$50,000, and since in many cases the service period can be expected to
11 precede the invoice date, the results of my third-party O&M expense lag can be
12 considered conservative.

13 **B. Federal Income Tax Expense**

14 **Q. What are the lag days determined for federal income taxes?**

15 A. The lag days for federal income taxes are typically calculated using the calendar year as
16 the service period because the income would be earned throughout the year. The
17 midpoint of the service period would be July 2. Payment of estimated tax for the year is
18 made quarterly on April 15, June 15, September 15, and December 15. Since the
19 Company had a net operating loss during the test year there were no current taxes paid
20 and no corresponding lag was calculated.

1 **C. Taxes Other than Income Taxes**

2 **Q. What taxes are included in the taxes other than income taxes?**

3 A. This group of taxes consists of: (1) payroll-related taxes (FICA, federal unemployment,
4 and state unemployment); and (2) property taxes.

5 **Q. How were the lag days calculated for each of those taxes?**

6 A. The payment lags for FICA taxes were calculated from the pay period end date to the
7 respective payment dates of the taxes. Federal unemployment taxes are paid after the end
8 of each quarter based on that quarter's wages up to the annual limit. State unemployment
9 taxes were calculated from the pay period end date to the respective payment dates of the
10 taxes. The payment lag for property taxes was calculated from the midpoint of the period
11 for which the tax was assessed to the payment date.

12 **D. Non-Cash Items**

13 **Q. Please explain why you excluded non-cash items from your lead-lag study.**

14 A. This study uses the cash method and therefore excludes non-cash items. As such, non-
15 cash items, including depreciation, amortization, deferred income taxes, and return
16 (including return on equity, and interest on long-term debt), have not been included in my
17 lead-lag study.

1 **VI. CONCLUSION**

2 **Q. What were the results of the lead-lag study?**

3 A. The CWC requirement for the Company is based on a net lag of 26.53 days for the rate
4 case test year January 1, 2016, through December 31, 2016.

5 **Q. Are the results of this lead-lag study reasonable?**

6 A. Yes, the results of the lead-lag study reflect the Company's practices, and are fair and
7 reasonable. In addition, the methods used in the study are consistent with studies
8 performed in other jurisdictions. The resulting CWC requirement should properly be
9 included in the Company's rate base.

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

11 A. Yes, it does.

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