



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

Docket No. DG 19-161

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

**DIRECT TESTIMONY**

**OF**

**DAVID B. SIMEK**

**AND**

**ADAM M. HALL**

November 27, 2019

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## ATTACHMENTS

<b>Attachment</b>	<b>Title</b>
DBS/AMH-1	Lead-Lag Study Calculations

1 **I. INTRODUCTION AND BACKGROUND**

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

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

5 (AH) My name is Adam M. Hall. My business address is 15 Buttrick Road,  
6 Londonderry, New Hampshire.

7 **Q. Please state by whom you are employed.**

8 A. We are employed by Liberty Utilities Service Corp. (“Liberty”), which provides service  
9 to Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities  
10 (“EnergyNorth” or “the Company”).

11 **Q. Please describe your educational and professional background.**

12 A. (DS) I graduated from Ferris State University in 1993 with a Bachelor of Science in  
13 Finance. I received a Master’s of Science in Finance from Walsh College in 2000. I also  
14 received a Master’s of Business Administration from Walsh College in 2001. In 2006,  
15 earned a Graduate Certificate in Power Systems Management from Worcester  
16 Polytechnic Institute. In August 2013, I joined Liberty as a Utility Analyst and I was  
17 promoted to Manager, Rates and Regulatory Affairs in August 2017. Prior to my  
18 employment at Liberty, I was employed by NSTAR Electric & Gas (“NSTAR”) as a  
19 Senior Analyst in Energy Supply from 2008 to 2012. Prior to my position in Energy  
20 Supply at NSTAR, I was a Senior Financial Analyst with the NSTAR Investment  
21 Planning group from 2004 to 2008.

1 (AH) I graduated from Siena College in 2014 with a Bachelor of Science in Finance. I  
2 also received a Master's of Business Administration from Franklin Pierce University in  
3 2016. I joined Liberty Utilities as an Analyst, Rates and Regulatory Affairs in January  
4 2019. Prior to this, I was employed by Southern New Hampshire University.

5 **Q. Have you previously testified in regulatory proceedings before the New Hampshire**  
6 **Public Utilities Commission (the "Commission")?**

7 A. (DS) Yes, I have testified on numerous occasions before the Commission.

8 (AH) No, I have not.

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

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

11 A. The purpose of our testimony is to explain the Company's lead-lag study, which is used  
12 to determine the cash working capital (CWC) requirement. Our analysis is supported by  
13 the data presented in Attachment DBS/AMH-1.

14 **Q. Please define the term "cash working capital" as a rate base component.**

15 A. The term "cash working capital" refers to the net funds required by the Company to pay  
16 for goods and services between the time of the cash outlay by the Company for such  
17 goods and services and the time revenues are recovered from customers. For the  
18 Company, the cost of "goods and services" includes operations and maintenance  
19 ("O&M") expenses, including labor expenses and non-labor expenses, federal taxes,  
20 local taxes, and payroll-related taxes.

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

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

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

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

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

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

19 A. The lead-lag study shows a net lag of 26.10 days for the rate case test year July 1, 2018,  
20 through June 30, 2019. The CWC calculation is based on the result of the lead-lag study,  
21 which is then applied to the rate case test year amounts for O&M expenses and taxes.

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

2 A. As stated above, the revenue lag is measured from the time service is provided to  
3 customers until the time payment is received from customers, and expense lags are  
4 measured from the time a service is provided to the Company until payment is made by  
5 the Company for that service. These lags are measured in days, converted to dollar-days,  
6 and summarized for each element in the lead-lag study. The difference between the  
7 revenue lag and the expense lag determines if there is a net revenue lag (revenue lag days  
8 are greater than the expense lag days for a component) or a net expense lead (revenue lag  
9 days are less than the expense lag days for a component).

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

11 A. The results of our lead-lag study show that the total number of revenue lag days is greater  
12 than the number of expense lag days for the Company during the CWC test year. We  
13 then multiplied this net difference by the average daily revenue requirements of the  
14 system to produce the net cash working capital required by the Company.

15 **IV. REVENUE LAG**

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

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

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

2 A. The service lag represents the midpoint of the service period, *i.e.*, the time between the  
3 start of the billing month and the end of the billing month. Our approach is to rely on the  
4 midpoint of the service period, which assumes that service will be provided evenly over  
5 the service period.

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

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

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

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

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

18 A. Each of these revenue lag components was totaled to arrive at the total revenue lag of  
19 52.68 days, as shown on Attachment DBS/AMH-1, Page 2.

1 **V. EXPENSE LAG**

2 **A. Operation and Maintenance Expenses**

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

4 A. We separated total system expenses into three groups: (1) regular payroll costs; (2)  
5 annual incentive payroll costs; and (3) third-party O&M expenses. We measured the  
6 expense lag days for each of these groups independently. A summary of the O&M  
7 expense lag is shown on Attachment DBS/AMH-1, Page 5.

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

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

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

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

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

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

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

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

17 **B. Income Tax Expense**

18 **Q. How are the lag days determined for income taxes?**

19 A. The lag days for federal and state income taxes are typically calculated using the calendar  
20 year as the service period because the income would be earned throughout the year. The  
21 midpoint of the service period would be December 30, 2018. Payment of estimated tax

1 for the year is made quarterly on April 15, June 15, September 15, and December 15.  
2 Since the Company had a net operating loss during the test year there were no current  
3 taxes paid and no corresponding lag was calculated.

4 **C. Taxes Other than Income Taxes**

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

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

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

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

15 **D. Non-Cash Items**

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

17 A. This study uses the cash method and therefore excludes non-cash items. As such, non-  
18 cash items, including depreciation, amortization, deferred income taxes, and return  
19 (including return on equity, and interest on long-term debt), have not been included in  
20 our 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 26.10 days for the rate  
4 case test year July 1, 2018, through June 30, 2019.

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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