STATE OF NEW HAMPSHIRE
BEFORE THE
PUBLIC UTILITIES COMMISSION

Docket No. DG 23-067

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

DIRECT TESTIMONY

OF

DR. ALBERT W. BREMSER

Black and Veatch Management Consulting, LLC

July 27, 2023

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I. INTRODUCTION

Q. Please state your full name, business address, and position.

A. My name is Albert W. Bremser. My business address is 11401 Lamar Ave., Overland Park, Kansas, 66221. I am employed by Black and Veatch Management Consulting, LLC as a Principal Consultant.

Q. Please describe your business and educational background.

A. I am a financial economist with more than twenty years of experience involving energy and non-energy projects, which includes rate-making and regulatory issues subject to state and federal energy regulatory authority such as the Federal Energy Regulatory Commission ("FERC"). My business background includes four years at FERC as an Energy Industry Analyst in the Office of Administrative Litigation as part of FERC Trial Staff where I was an expert witness. I hold a Bachelor of Science in Commerce from the University of Virginia, a Master of Business Administration from the University of Pittsburgh, and a Ph.D. in Finance from Virginia Tech. A copy of my curriculum vitae is included as Attachment AWB-1.

Q. Please describe any professional designations you have.

A. I am a Chartered Financial Analyst ("CFA").

Q. What are your responsibilities in your current position?

A. As a member of Black and Veatch Management Consulting, LLC's Global Advisory practice, my responsibilities include providing advisory services that address strategic, financial, and regulatory advisory needs of energy and utility clients.

Q. On whose behalf are you testifying?

A. I am testifying on behalf of Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty ("Liberty EnergyNorth" or "Company").

Q. Have you testified before the New Hampshire Public Utilities Commission ("Commission")?

A. No, I have not.

II. PURPOSE AND OVERVIEW OF TESTIMONY

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to explain the lead-lag study conducted in preparation for this filing. The lead-lag study is used to determine the cash working capital ("CWC") requirement in the Company's revenue requirement sponsored by Company witness C. Drew Cayton. My lead-lag recommendation is supported by Attachment AWB-2.

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

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

Q. How did you derive the lead-lag days used to determine the cash working capital requirement?

A. The lead-lag study measures the net difference between the average number of days before revenues are received by the Company from customers (revenue *lag*) and the average number of days before the Company pays expenses (expense *lead*). For example, if a firm pays its expense on average in thirty days (expense *lead*) and collects revenues on average from customer in fifty days (revenue *lag*), then net lead-lag is twenty days. There is a twenty-day lag between when expenses are paid and when the revenue is received. The revenue lag represents the number of days between when customers receive their service from the Company and when the customer pays the Company for the service received. A longer revenue lag means the Company needs more cash to fund its day-to-day operations. The expense lead represents the number of days between when the Company incurs expenses to provide service and when the Company makes payments for those expenses. A longer expense lead means the Company needs less cash to fund its day-to-day operations. Together, the revenue lag and expense lead measure the net lead-lag days, which is used to determine the CWC requirement. The CWC requirement is a component of the Company's rate base.

Q. Please describe the use of terms revenue lag and expense lag as compared to expense lead.

A. The revenue lag is stated as a positive number such as fifty-five days. The expense lead is stated as a negative number such as days, which is expressed as expense lag (thirty)

days (i.e., "(Lead)/Lag Days"). Thus, a revenue lag of fifty-five days and an expense lag of (thirty) days is a net lead-lag of twenty-five days.

Q. Are you sponsoring any schedules as a part of your direct testimony?

A. Yes. In addition to my curriculum vitae, I am sponsoring Attachment AWB-2, which is the lead-lag study.

Q. Please summarize your testimony in this proceeding.

A. The results of the lead-lag study are that the net lag is 24.86 days for the rate case test year of January 1, 2022, to December 31, 2022. I recommend that Company witness Cayton use a net lag of 24.86 days for the cash working capital calculation that he is performing as part of his revenue requirement testimony.

Q. Please summarize the lead-lag study from the prior rate case.

A. In the prior rate case (Docket No. DG 20-105), the net lag was 25.72 days as sponsored by Company witnesses Simek and McNamara.[1] My understanding of the Commission Staff testimony in that proceeding is that the number of days sponsored by the Company witnesses in that rate case was accepted and not adjusted by the Commission Staff witness.[2]

[1] Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty, Distribution Service Rate Case, Docket No. DG 20-105, Direct Testimony of David B. Simek and Catherine A. McNamara, July 31, 2020, page 4 at lines 6–8 and page 15 at lines 15–18. Also, see Attachment DBS/CAM-1 at page 1 on line 13 at the column heading "Net (Lead)/Lag Days."

[2] Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty, Distribution Service Rate Case, Docket No. DG 20-105, Direct Testimony of Donna H. Mullinex, Consultant to Staff, March 18, 2021, page 12 at lines 1 to 9.

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III. LEAD-LAG STUDY APPROACH

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

A. The lead-lag study shows a net lag of 28.43 days for the rate case test year January 1, 2022, through December 31, 2022. I calculated the overall result of the lead-lag study by applying the specific expense category days to the test year amounts for O&M expenses and taxes. I relied upon information provided from the Company to perform the lead-lag study.

Q. How did you develop the net lead-lag days in your study?

A. I measured the revenue lag from the time the Company provides service to customers until the time the Company receives payment. The expense lag measures the time from when the Company incurs an expense to when the Company makes a payment for that expense. I first calculated the lags (i.e., time intervals) in days. Then, I weighted the days using the individual expense items using the expense dollar amount (i.e., dollar-days). Finally, I summarized each expense element in the lead-lag study.

IV. REVENUE LAG

Q. Please describe the components of the revenue lag.

A. Revenue lag consists of three components: (1) the service lag; (2) the billing lag; and (3) the collection lag. The total number of days produced by the three components represents the amount of time between providing utility service to customers and the

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Also, see Attachment DHM-2 at page 10, which use a "Lead/Lag Days Ratio" of 7.05% at Line 16 in both the "Company Proposed" and "Adjusted Amount" column. 25.72 days divided by 365 equals 0.0705 or 7.05%.

receipt of the related revenues for such service. Together, these revenue lag components comprise the total revenue lag days.

Q. What is the service lag?

A. The service lag represents the midpoint of the service period, i.e., the time between the start of the billing month and the end of the billing month. This approach relies on the midpoint of the service period, which assumes that service will be provided at the same level during the service period.

Q. What is the billing lag?

A. The billing lag is the time between the cycle bill read date and the date bills are sent to customers. The billing lag begins the day the customer meter is read and ends with invoicing the customer with a bill.

Q. What is the collection lag?

A. Collection lag reflects the time between invoicing the customer with a bill for the services rendered and the receipt of payment from customers for the revenues billed. I determined the collection lag using the accounts receivable turnover ratio method. I calculated the average end of month accounts receivable balance divided by the average daily revenues for the test year.

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

A. I totaled each of these revenue lag components to arrive at the total revenue lag of 55.54 days, as shown on Attachment AWB-2, Page 1.

V. EXPENSE LAG

A. Operation and Maintenance Expenses

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

A. I separated total system expenses into three groups: (1) regular payroll costs; (2) annual incentive payroll costs; and (3) third-party O&M expenses. I measured the expense lag days for each of these groups independently. A summary of the O&M expense lag is shown on Attachment AWB-2, Page 11.

Q. How did you determine the lag days for the payroll expenses?

A. I determined the expense lag days for payroll using the Company's wage payment schedule, which pays employees on a bi-weekly or weekly basis. I determined the expense lag days for payroll costs using the average service days being paid and adding the service period midpoint to the number of days between the service period end date and the payment date to employees. This calculation produces the total days between the middle of the service period for employee wages and the date payments are disbursed by the Company.

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

A. Yes. I made an adjustment for vacation pay, which recognizes that an employee earns vacation pay prior to taking the vacation time. I calculated the vacation pay adjustment using the average payroll lag days and the midpoint of the days in the year.

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

A. The Company's payment to an employee for the annual incentive pay based on the prior calendar occurs in the second quarter of the year. I determined the lag days using the midpoint of the annual incentive performance period and the payment for the annual incentive pay.

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

A. I measure the lag days for this expense category using a stratified sample of these expenses for the test year. The third-party O&M invoice transactions were sorted from the highest amount to the lowest amount. Then, three stratified samples were selected. The first group consists of transactions of more than $12,300, which is about twenty-seven percent of the total third-party O&M expenses. From this group, I selected the first transaction and then I selected every other transaction (i.e., items one, three, five, etc..), which results in a sample of thirty-three for that group. The second stratified sample group consists of transactions of less than $12,300 and more than $1,849, which is about forty-two percent of the total third-party O&M expenses. From this group, I selected every twenty-fifth transaction, which results in a sample of thirty-three. The third stratified sample set contains transactions of less than $1,849, which is about thirty-one percent of the total third-party O&M expenses. From this group, I selected every 206th transaction, which results in a sample of thirty-four. Table 1 below summarizes the selection of information. The total sample represents about sixteen percent of the total third-party O&M expenses.

Table 1. Summary of Stratified Sample Selection

Stratified Sample	Highest Amount	Lowest Amount	Percentage of Total 3rd party O&M expense	Population Accounting Entries	Selection Interval	Stratified Sample Size
1	Maximum in data set	$12,300	27%	66	Every other	33
2	$12,300	$1,849	42%	825	Every 25th	33
3	$1,849	Minimum in data set	31%	7,022	Every 206th	34

I reviewed the invoices associated with the sample accounting entries to determine if a service period could be identified. If the service period was identified, then I used the mid-point of the service period and the payment date to determine the expense lag for third-party O&M expenses. If no service period was identified, I used the invoice date and the payment date to calculate the expense lag for third-party O&M expenses. There were three invoices for expenses that were pre-payments for services at least one year after the payment date, which I removed from the analysis. Removing those three invoices from the analysis results in an expense lag of (44.90), which is comparable to the same figure of (42.02) from the prior rate case.[3]

[3] Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty, Distribution Service Rate Case, Docket No. DG 20-105, Direct Testimony of David B. Simek and Catherine A. McNamara, July 31, 2020, Attachment DBS/CAM-1 at page 1 on line 3 at the column heading "Expense Lag."

B. Income Tax Expense

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

A. The lag days for federal and state income taxes are typically calculated using the calendar year as the service period because the income would be earned throughout the year. The midpoint of the service period would be June 30, 2022. Payment of estimated tax for the year is made quarterly on April 15, June 15, September 15, and December 15. The Company had a taxable loss for federal income tax purposes during the test year so there were no federal taxes paid in 2022. The Company did make state income taxes payments to the State of New Hampshire, so I use this information to determine the income tax lag.

C. Taxes Other than Income Taxes

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

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

Q. How did you calculate the lag days for each tax category?

A. For the FICA taxes, I determined the payment lag by using the pay period end date to the respective tax payment dates. The Company pays federal unemployment taxes after the end of each quarter based on that quarter's wages up to the annual limit. For the state unemployment taxes, I determined the payment lag by using the pay period end date to the respective tax payment dates. For property taxes, I determined the payment lag by using the time period midpoint for the tax assessment relative to the property tax payment date.

D. Non-Cash Operating Expense Items

Q. Please explain why you do not include non-cash operating expenses items in the lead-lag study.

A. This study uses the cash method, which excludes non-cash operating expenses items such as depreciation and amortization. Non-cash operating expense items do not require the use of cash working capital by the Company.

VI. CONCLUSION

Q. What are the lead-lag study results?

A. The lead-lag study shows a net lag of 24.86 days for the rate case test year January 1, 2022, through December 31, 2022. I recommend that Company witness Cayton use a net lag of 24.86 days for the cash working capital calculation that he is performing as part of his revenue requirement calculations and testimony.

Q. Does this conclude your testimony?

A. Yes, it does.

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