NORTHERN UTILITIES, INC.

DIRECT TESTIMONY

OF

DANIEL J. HURSTAK

EXHIBIT DJH-1

New Hampshire Public Utilities Commission

Docket No. DG 21-104

TABLE OF CONTENTS

Exhibits

Exhibit DJH-2	**Pro Forma Lead-Lag Summary**
Exhibit DJH-3	**Supporting Workpapers**

1 **I.   INTRODUCTION**

2 **Q.   State your name and business address.**

3 A.   My name is Daniel J. Hurstak and my business address is 6 Liberty Lane West,

4   Hampton, New Hampshire 03842.

5 **Q.   What is your position and what are your responsibilities?**

6 A.   I am the Chief Accounting Officer and Controller for Unitil Corporation and the

7   Controller for Northern Utilities, Inc. ("Northern" or the "Company"). I am also

8   the Controller for Unitil Service Corp. ("Unitil Service"), a subsidiary of Unitil

9   Corporation that provides managerial, financial, regulatory, and engineering

10   services to Unitil's utility subsidiaries including Northern. I am responsible for

11   the accounting and financial reporting activities for Unitil and its subsidiaries.

12 **Q.   Describe your business and educational background.**

13 A.   Prior to joining Unitil Service in March 2020, I was Vice President, Corporate

14   Accounting, at Fidelity Investments (a multinational financial services

15   corporation headquartered in Boston, Massachusetts), from June 2016 until

16   February 2020. Prior to Fidelity, I was a senior manager at

17   PricewaterhouseCoopers LLP ("PwC") (a multinational professional services

18   network of firms operating as partnerships under the PwC brand) from September

19   2009 until May 2016, and I began my career at PwC in September 2001. I have a

20   Bachelor of Science degree in Accounting from Bentley College, Waltham,

1   Massachusetts, and I am a Certified Public Accountant in the Commonwealth of

2   Massachusetts.

3   **Q.**   **Have you previously testified before the New Hampshire Public Utilities**

4   **Commission ("NHPUC") or other regulatory agencies?**

5   A.   Yes, I previously provided testimony before the New Hampshire Public Utilities

6   Commission on behalf of Unitil Energy Systems, Inc. in connection with Docket

7   DE 21-030.

8   **II.**   **PURPOSE OF TESTIMONY**

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

10   A.   The purpose of my testimony is to present the cash working capital requirements

11   of Northern for its delivery and purchased gas services. Northern has identified

12   its revenue requirements on a pro forma basis and computed cash working capital

13   for the test year ending December 31, 2020.

14   **III.**   **CASH WORKING CAPITAL**

15   **Q.**   **Define the term "cash working capital" as used in utility ratemaking.**

16   A.   Cash working capital is the amount of investor-supplied capital required by the

17   Company to fund operations in the time period between when expenditures are

18   incurred to provide service to customers and when payment is actually received

19   from customers. Cash working capital represents dollar amounts funded by

20   investors to provide safe and reliable gas distribution services prior to receipt of

1   payment for those services from customers. As such, cash working capital is an

2   appropriate addition to the Company's rate base.

3   Q.   **Did you perform analyses to estimate the cash working capital of Northern**

4   **for the adjusted test year?**

5   A.   Yes. Exhibit DJH-2 summarizes the results of the Northern lead-lag study using

6   the pro forma revenue requirements for the test year ending December 31, 2020.

7   As shown on page 1 of Exhibit DJH-2, the rate base addition for the delivery cash

8   working capital is $2,008,385, reflecting a net lag of 36.49 days.

9   In addition, as shown on page 4 of Exhibit DJH-2, I have also calculated 9.30 net

10   lag days for purchased gas. The results of this study will be used to calculate the

11   purchased gas working capital costs to be recovered through the Cost of Gas

12   Adjustment. This change would become effective on the same date as the base

13   rate change in this proceeding.

14   Q.   **What is a lead-lag study?**

15   A.   A lead-lag study is an analysis designed to determine the permanent working

16   capital required to operate a company on a day-to-day basis. A lead-lag study

17   compares (1) the timing difference between the receipt of service by customers

18   and their subsequent payment for these same services and (2) the timing

19   difference between the incurrence of costs by the Company and its subsequent

20   payment of those costs.

1   A lead-lag study therefore must compute a revenue lag or (lead), and an expense

2   lag or (lead). Cash working capital was developed using systematic reviews of

3   cash flows for the Company's revenues and operating expenses. The lead-lag

4   study measures the base revenue requirement cash working capital needed for the

5   Company's day-to-day gas operations for the 12-month pro forma period ending

6   December 31, 2020. Exhibit DJH-2, page 1 of 4, summarizes the lead-lag study

7   results.

8   **Q.**   **Define the terms "lag days" and "lead days" as used in your testimony.**

9   A.   Revenue lag is the number of days between delivery of service to the Company's

10   customers and subsequent receipt by the Company of payment for the service.

11   Expense lag is the number of days between the receipt of goods or services

12   provided to the Company by vendors and payment for such goods or services by

13   the Company. Because the Company's gas customers receive service prior to

14   paying for it, the Company experiences a revenue lag in its daily operations. The

15   Company typically pays expenses after vendors have provided their goods or

16   services, which results in an expense lag. The Company will occasionally pay for

17   goods or services before they are provided, which results in an expense lead. As

18   shown on Exhibit DJH-2, page 1 of 4, line 32, column 5, the Company's net lag

19   days are 36.49 days.

20   **Q.**   **Describe the approach you used in preparing your lead-lag study.**

21   A.   The lead-lag study starts with the identification of revenues and expenses

22   recorded in the Company's books ("per-books") for the 12-month period ended

1 December 31, 2020 as the basis for the analysis. First, the lag days for the

2 recovery of revenue were calculated. Next, for operating and maintenance

3 ("O&M") expenses, lag or lead days for each of several types of expenses,

4 including labor, employee benefits, insurance (general, fiduciary, property),

5 regulatory commission expenses, vehicle leases, other O&M expenses, and

6 service company charges were calculated. In addition, lag or lead days for

7 property taxes, other taxes, and income taxes were calculated. Once the net lag

8 days for the test year are established on a per-books basis, they are applied to the

9 test year pro forma revenue requirements. The lead or lag days for each of the

10 items described in this testimony are then multiplied by the test year pro forma

11 amounts to determine the dollar-days of cash working capital. The net dollar-

12 days of revenue less expenses and taxes are then divided by 366 days to obtain the

13 average daily cash working capital.

14 **Q.** **Describe your calculation of revenue lag.**

15 A. The calculation of the revenue lag is summarized on page 2 of Exhibit DJH-2. As

16 previously described, "revenue lag" is the length of time that occurs between the

17 Company's provision of service to its customers and the subsequent receipt of

18 payment for those services. The existence of a revenue lag makes it necessary for

19 investors to provide funding for the Company to pay its operating costs during the

20 lag period.

21 The measurement of revenue lag consists of four components: (1) service lag, (2)

22 billing lag, (3) collection lag, and (4) collection to receipt of available funds

1   ("revenue float"). Since the time periods for these four components are mutually

2   exclusive, revenue lag is computed by adding the total number of days associated

3   with each of the four revenue lag components. This total number of lag days

4   represents the amount of time between the recorded delivery of service to

5   customers and the receipt of the related revenues from customers.

6   **Q.   Describe how you calculate service lag.**

7   A.   The service lag is the average time span between the mid-point of the customer's

8   consumption interval, also known as the usage period, and the time that such

9   usage is recorded by the Company for billing purposes. This usage period

10   determines the average length of time over which the billed services are provided

11   and establishes a common point in time from which to measure (1) the time of

12   reimbursement for the billed services, and (2) the time at which the accrued costs

13   for the usage period are actually paid. For the Company, the service lag is one-

14   half of an average month for the year ended December 31, 2020 or 15.25 days

15   (366/12/2). Refer to Exhibit DJH-2, page 2 for the service lag analysis.

16   **Q.   Describe the calculation of billing lag.**

17   A.   The billing lag is the time required to process and send out customer bills. The

18   billing lag begins at the end of the service period when customer consumption is

19   metered, and it ends when the bills are rendered and billings are posted to

20   accounts receivable. The billing lag may be influenced by factors such as whether

21   automated or manual meter reading systems are employed, the generation of

22   invoices from this metering data and other processes affecting the time to post

1   billings to accounts receivable. The Company posts meter readings daily for

2   billing the next day, and the meter reading is recorded into accounts receivable on

3   the same day. The Northern billing lag was approximately 1.02 days after

4   considering the delay for weekends and holidays. Refer to Exhibit DJH-2, page 2

5   for the billing lag analysis.

6 **Q.**   **Describe the calculation of collection lag.**

7 A.   The collection lag identifies the time between the posting of customer bills to

8   accounts receivable and the receipt of these billed revenues. Collection lag,

9   which begins with the posting of bills and ends with the receipt of payment, may

10   be influenced by payment arrangements, contract terms, postal delivery delays,

11   customer inquiries, delinquent accounts, service termination practices, and other

12   factors. The Company has employed the accounts receivable turnover ratio

13   method to determine the collection lag. Using this approach, the average monthly

14   accounts receivable balances (as measured by the average of the month-end

15   balances for the 12 months from January 2020 to December 2020) were divided

16   by the average daily revenues for the 12 months ended December 31, 2020.

17   Using the accounts receivable turnover method, a collection lag of 33.33 days was

18   computed. Refer to Exhibit DJH-2, page 2 for the collection lag analysis.

19 **Q.**   **Describe the final component of revenue lag, revenue float.**

20 A.   Revenue float is the time between when funds are received from customers until

21   customer payments clear the banks and are available to the Company. Certain

22   funds are available the day payment is received while other funds are generally

1   available within one or two days of receipt by the bank. The following day's

2   bank statement reflects the prior day's bank availability of funds. Refer to Exhibit

3   DJH-2, page 2 for the revenue float analysis.

4   **Q.   Are there other components of revenue lag for Northern?**

5   A.   Yes, refer to page 2 of Exhibit DJH-2. This page includes other components such

6   as late payment charges, disconnect / reconnect fees, rentals, and other

7   miscellaneous revenues.

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

9   A.   The revenue lag components were combined to arrive at the total revenue lag of

10   51.32 days, as shown on Exhibit DJH-2, page 2.

11   **Q.   How is the lag for labor expense determined?**

12   A.   The Company's employees are paid either weekly or monthly. Using sample

13   data, the Company measured the lag between the mid-point of the pay period and

14   the pay date. However, not all labor costs earned by employees in the pay period

15   are paid out as salary, the difference being payroll withholdings. In order to make

16   an accurate calculation of total labor costs, all labor-related costs were identified,

17   including the dates when the Company actually expended the cash for these labor

18   costs. These labor-related costs reflect all salary components including incentive

19   compensation, payroll taxes including withholding taxes, and a wide range of

20   benefits. Regular payroll (weekly and monthly) costs are the largest component

21   of labor costs and have the shortest payment lag. However, other components of

1   labor costs have longer expense lags. For example, incentive compensation pay

2   was earned from January 2020 to December 2020 and was paid in February 2021,

3   resulting in a much longer expense lag. In addition to direct labor expense, the

4   Company examined other labor-related costs, including payroll taxes.

5   **Q.   Describe how the lag is calculated for employee benefits.**

6   A.   The method for calculating expense lags for employee benefits uses a benefit

7   payments approach. For each benefit payment, the service period and its mid-

8   point were determined. The payment date was then established. The lag was then

9   computed as the difference between the payment date and the mid-point of the

10   service period. A weighted average of each benefit payment was then computed

11   to determine the overall average for this category.

12 **Q.   Were other categories of O&M expense analyzed separately and included in**

13   **the expense lag?**

14 A.   Yes, insurance (general, fiduciary, property) expenses, regulatory commission

15   expenses and vehicle leases were analyzed separately and included in the

16   calculation of the expense lag. The lag for these expense items was also

17   computed as the difference between the payment date and the mid-point of the

18   service period.

1   **Q.**   **How was the expense lag calculated for expenses allocated from Unitil**

2   **Service?**

3   A.   The expenses allocated from Unitil Service consist of Labor and Other O&M

4   expenses that are charged to O&M accounts. The expense lag of 39.60 days

5   assigned to these expenses was computed as the difference between the payment

6   date for Unitil Service charges, and the mid-point of the service period, which is

7   the mid-point of the calendar month being billed.

8   **Q.**   **Are Other O&M expenses included in the calculation of expense lag?**

9   A.   Yes, there are additional O&M expenses (referred to as "Other O&M" expenses)

10   paid directly by the Company. Because these expenses are made up of thousands

11   of vouchers processed throughout the course of the test year, a sample was used to

12   estimate the Other O&M expense lags for the Company. The sample produced a

13   lag of 31.70 days for these Other O&M direct expenses.

14   The sampling method used was a random sequential sample of the population

15   using three strata. The population was sorted by dollar amounts, and the

16   following strata were used to generate the sample:

17   Stratum 1: All vouchers greater than $10,000;

18   Stratum 2: Every 10th voucher less than $10,000 and more than $1,000;

19   Stratum 3: Every 100th voucher under $1,000.

20   The resulting sample, which accounted for 22.98% of the dollars in the

21   population, indicated a lag of 31.70 days.

1   Q.   **Did you exclude any voucher selections from the calculation of lag days?**

2   A.   Yes. Two invoices greater than $10,000 were determined to be outliers and not

3   representative of the Other O&M expense population. These invoices were for

4   IRP related work that was performed in June and July 2019 but not paid until

5   March 2020.

6   Q.   **Did you include any other expenses besides O&M expenses in the calculation**

7   **of expense lag?**

8   A.   Yes. Since Property Taxes, Other Taxes, and Federal and State Income Taxes

9   represent cash outlays, they were included in the calculation. All property tax

10   payments made during 2020 were analyzed, and the expense lags computed.

11   Other Taxes consist mostly of Payroll Taxes and Unemployment Taxes. Each

12   type of tax was analyzed separately and assigned a lag based on the service

13   periods and payment dates. Federal and State Income Taxes were assigned lags

14   based on the statutory required fiscal tax year tax payments.

15   Q.   **Did the COVID-19 pandemic have an impact on the calculation of lag days**

16   **for any expense category?**

17   A.   The CARES Act enacted the Employment Retention Credit ("ERC") to encourage

18   companies to retain employees during the pandemic. The ERC is a 50% credit on

19   employee wages for employees that are retained and cannot perform their job

20   duties at 100% capacity as a result of pandemic restrictions. The ERC is applied

21   as a credit to employment taxes on the Company's Form 941. In the third quarter

1   of 2020, Northern recorded an ERC of approximately $87,364.16 as a reduction

2   to employment tax expense. This amount has been reflected as a pro forma

3   adjustment to employment tax expense in this lead-lag analysis.

4   The Families First Coronavirus Response Act ("FFCRA") provided paid sick

5   leave for employees who had to quarantine, care for a quarantined individual, or

6   care for a child whose school or child care provider was closed or unavailable for

7   reasons related to COVID-19. The FFCRA is applied as a credit to employment

8   taxes on the Company's Form 941. In the fourth quarter of 2020, Northern

9   recorded a FFCRA of approximately $20,000 as a reduction to employment tax

10   expense. This amount has been reflected as a pro forma adjustment to

11   employment tax expense in this lead-lag analysis.

12   **Q.   Did you compute the cash working capital requirements on any expenses not**

13   **recovered in base rates?**

14   A.   Yes, I did. The cash working capital requirement was calculated for purchased gas

15   expenses. The purchased gas expenses were analyzed for 2020 for each supplier.

16   The expense lags for each supplier payment were computed as the difference

17   between the payment date and the mid-point of the service period. This analysis

18   resulted in a purchase gas expense lag of 42.09 days, as shown on page 4 of

1   Exhibit DJH-2. This page also computes the revenue lag of 51.39 days. The

2   resulting net lag is 9.30 days.

3   **Q.**   **Where have you presented the results of the cash working capital**

4   **calculations for the pro forma test year?**

5   A.   The results of the lead-lag study are summarized on page 1 of Exhibit DJH-2.

6   This page summarizes the revenue lags from page 2 and the expense lags from

7   page 3, and presents the Company's cash working capital for the test year on a pro

8   forma basis. As mentioned earlier, this study also includes the lag for purchased

9   gas services, which is presented on page 4 of Exhibit DJH-2.

10   **Q.**   **Have you identified the net lag days between revenue and expense for**

11   **Northern for the twelve months ended December 31, 2020 on a pro forma**

12   **basis?**

13   A.   Yes. As indicated by the data on page 1 of Exhibit DJH-2, the net lag for cash

14   working capital is 36.49 days (line 32, column 5) which is slightly different than

15   the number included in line 24, column 4 due to rounding. The positive lag

16   indicates that cash working capital is required to compensate for the fact that the

17   lag in the recovery of revenues is greater than the lag in the payment of expenses.

18   On a pro forma basis, Northern's cash working capital requirement for December

19   31, 2020 test year is $2,008,385, or 9.97%, as shown on page 1, lines 30 and 34,

20   of the above noted schedule. This cash working capital requirement represents

21   the capital that must be provided and included as an addition to rate base.

1   **IV.   CONCLUSION**

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

3   A.   Yes, it does.