

Northern Utilities - New Hampshire Division
Cash Working Capital Requirements
12 Months Ended Dec 31, 2016
Lead Lag Summary

5/18/2017
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Line No		<u>Annual Expense</u> (1)	<u>Revenue (Lead) Lag Days</u> (2)	<u>Expense (Lead) Lag Days</u> (3)	<u>Net (Lead) Lag Days</u> (4)	<u>Day Weighted Amount</u> (5)	<u>Source</u> (6)
1	Total Revenue Lag		46.31				
2							
3	Total Expense Lag						
4	Operation & Maintenance Expense						
5	Labor - Direct	\$2,129,461	46.31	18.30	28.01	\$59,651,373	Page 3 of 4 - Line 2
6	Labor - Incentive	\$9,073	46.31	220.50	-174.19	-\$1,580,469	Page 3 of 4 - Line 3
7	Employee Pensions & Benefits	\$1,951,180	46.31	33.83	12.47	\$24,338,979	Page 3 of 4 - Line 4 to 12
8	General Liability & Fiduciary	\$277,377	46.31	-126.73	173.04	\$47,998,256	Page 3 of 4 - Line 13 & 14
9	Regulatory Commission Expense	\$310,650	46.31	21.91	24.39	\$7,578,120	Page 3 of 4 - Line 18 & 19
10	Vehicle Leases	\$138,987	46.31	1.41	44.89	\$6,239,710	Page 3 of 4 - Line 20
11	Customer Credit Card Fees	\$95,537	46.31	17.35	28.96	\$2,766,700	Page 3 of 4 - Line 21
12	IRP Expenses	\$61,850	46.31	-157.05	203.36	\$12,577,834	Page 3 of 4 - Line 22
13	Other O&M Expenses	\$2,027,446	46.31	39.57	6.74	\$13,672,193	Page 3 of 4 - Line 23 & 28
14	Other O&M Exp - Service Company Charges	\$5,459,700	46.31	40.46	5.85	\$31,957,853	Page 3 of 4 - Line 24 to 27
15							
16	Other Taxes						
17	Other Taxes Excluding Property Taxes	\$288,421	46.31	10.93	35.38	\$10,203,324	Page 3 of 4 - Line 34
18	Property Taxes	\$4,179,034	46.31	-6.36	52.67	\$220,093,005	Page 3 of 4 - Line 35
19							
20	Income Taxes						
21	Federal Income Taxes	\$4,259,509	46.31	29.25	17.06	\$72,661,368	Page 3 of 4 - Line 39
22	State Income Taxes	\$2,052	46.31	29.25	17.06	\$34,996	Page 3 of 4 - Line 40
23							
24							
25							
26	Net of Revenue less Expense Lag	\$21,190,277	46.31	22.33	23.98	\$508,193,240	Sum of Lines 5 to 22
27	Days					366	
28							
29	Avg Daily Cash Working Capital Requirements					\$1,387,963	Line 36 * Line 26 Col 1
30							
31							
32	Cash Working Capital Requirements					\$1,387,963	Line 29
33							
34	Base Revenue Net Lag Days					23.97	(Line 32 / Line 26, Col 1) * 366
35							
36	Base Revenues Working Capital Percentage					6.55%	(Line 26, Col 5 / Line 26, Col 1)/366
37							
38							
39							
40							

Northern Utilities - New Hampshire Division
Cash Working Capital Requirements
12 Months Ended Dec 31, 2016
Revenues Lag Summary

5/18/2017
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Line No	<u>Revenue Lag</u>	Revenues <u>Billed</u>	(Lead) Lag <u>Days</u>	<u>Source</u>	Wtg Delivery <u>Dollar Days</u>
1	Service Lag		15.25	See Note 1	
2					
3	Billing Lag				
4	Cycle Read Customers		1.04	W/P Supporting Page 1, Line 3	
5					
6	Collection Lag		30.07	W/P Supporting Page 1, Line 4	
7					
8	Total Sales Revenues	<u>\$38,808,159</u>	<u>46.36</u>		<u>\$1,799,146,249</u>
9					
10	Late Payment Charge Revenue	\$104,863	35.47	See Note 2	\$3,719,499
11					
12	Reconnect Fees	\$107,048	46.36	Line 8	\$4,962,722
13					
14	Pool Administration	\$1,132	46.36	Line 8	\$52,461
15					
16	3rd Party Billing	\$14,369	46.36	Line 8	\$666,128
17					
18	Customer Telemetering	\$6,497	46.36	Line 8	\$301,218
19					
20	Water Heaters & Conversion Burners	\$592,398	46.36	Line 8	\$27,463,592
21					
22	UNH Revenue	\$0	46.36	Line 8	\$0
23					
24	Rental Revenue	\$3,648	40.46	See Note 3	\$147,582
25					
26	Rental Revenue Intercompany	\$149,124	40.46	See Note 3	\$6,032,906
27					
28					
29	Total Revenue Lag	<u><u>\$39,787,238</u></u>	<u><u>46.31</u></u>		<u><u>\$1,842,492,358</u></u>

Notes:

1. Computed as 366/12/2
 2. Fees are assessed on the next billing. Lag is computed as the collection lag on Line 6 plus the average of 5.4 days from due date.
 3. Represents Rental Income from Granite and USC. Cash settlement is made at the same time as the service company charges in the following month.
- Service Company Charges lag is used.

Northern Utilities - New Hampshire Division
Cash Working Capital Requirements
12 Months Ended Dec 31, 2016
Cost of Service Lead Lag Summary

5/18/2017
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Line No	Revenue Req Amount	(Lead) Lag Days	Source	Weighted Amount	
1	Operation & Maintenance Expense				
2	Labor - Direct - Pro Forma	\$2,129,461	18.30	W/P Supporting Page 9	\$38,961,034
3	Labor - Incentive - Pro Forma	\$9,073	220.50	W/P Supporting Page 9	\$2,000,635
4	Employee Pensions & Benefits	\$538,165	71.13	W/P Supporting Page 45	\$38,278,218
5	Medical & Dental Insurance - Pro Forma Adj	-\$11,878	84.33	W/P Supporting Page 45	-\$1,001,695
6	Pensions	\$601,607	7.93	W/P Supporting Page 68	\$4,768,522
7	Pension - Pro Forma Adj	\$37,510	7.93	W/P Supporting Page 68	\$297,315
8	PBOP	\$353,120	22.00	W/P Supporting Page 45	\$7,768,676
9	PBOP - USC	\$260,818	40.44	W/P Supporting Page 45	\$10,548,061
10	PBOP - Pro Forma Adj	\$50,514	22.00	W/P Supporting Page 45	\$1,111,309
11	PBOP - USC Pro Forma Adj	\$99,703	40.44	W/P Supporting Page 45	\$4,032,226
12	401K - Pro Forma Adj	\$21,621	9.94	W/P Supporting Page 45	\$214,870
13	Acct 925 - General Liability & Fiduciary	\$228,942	-126.73	W/P Supporting Page 69	-\$29,014,893
14	Property & Liability Insurances - Pro Forma Adj	\$48,435	-126.73	W/P Supporting Page 69	-\$6,138,409
15	Uncollectible Accounts - Acct 904 Base	\$152,630		Non Cash Item	
16	Distribution Bad Debt - Pro Forma Adj	\$89,445		Non Cash Item	
17	Non-Distribution Bad Debt - Pro Forma Adj	\$2,498		Non Cash Item	
18	Regulatory Commission Expense	\$91,075	21.91	W/P Supporting Page 75	\$1,995,838
19	NH PUC Assessment - Pro Forma Adj	\$219,575	21.91	W/P Supporting Page 75	\$4,811,816
20	Vehicle Leases	\$138,987	1.41	W/P Supporting Page 76	\$196,582
21	Customer Credit Card Fees	\$95,537	17.35	W/P Supporting Page 89	\$1,657,495
22	IRP Expenses	\$61,850	-157.05	W/P Supporting Page 90	-\$9,713,633
23	Other O&M Expenses - Direct	\$1,890,581	39.57	W/P Supporting Page 91	\$74,800,979
24	Other O&M Exp - Service Company Charges	\$5,148,166	40.46	W/P Supporting Page 94	\$208,272,351
25	SERP - Service Company Charges	\$141,672	40.44	W/P Supporting Page 94	\$5,729,542
26	SERP - Pro Forma Adj	\$28,544	40.44	W/P Supporting Page 94	\$1,154,372
27	Labor - USC Pro Forma Adj	\$141,317	40.46	W/P Supporting Page 94	\$5,717,077
28	Inflation Pro Forma Adj	\$136,865	39.57	W/P Supporting Page 91	\$5,415,065
29	Total Operating & Maintenance Expenses	\$12,705,834			
30					
31	Depreciation & Amortization Expense	\$7,420,524		Non Cash Item	
32					
33	Other Taxes				
34	Other Taxes Excluding Property Taxes	\$288,421	10.93	W/P Supporting Page 107	\$3,153,073
35	Property Taxes	\$4,179,034	-6.36	W/P Supporting Page 108	-\$26,567,656
36	Total Other Taxes	\$4,467,456			
37					
38	Income Taxes				
39	Federal Income Taxes	\$4,259,509	29.25	W/P Supporting Page 121	\$124,590,625
40	State Income Taxes	\$2,052	29.25	W/P Supporting Page 122	\$60,007
41	Total Income Taxes	\$4,261,560			
42					
43	Provision for Deferred Income Taxes	\$4,699		Non Cash Item	
44					
45	Interest on Customer Deposits	\$13,346		See Note 1	\$0
46					
47	Return	\$10,913,819			
48					
49	Total Requirements	\$39,787,238			
50					
51	Notes:				
52	1. Customer Deposits is included as a deduction from Rate Base and therefore excluded from the lead lag study.				

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Northern Utilities - New Hampshire Division
Purchased Gas Net Lag
12 Months Ended Dec 31, 2016

5/18/2017
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Line No		<u>Annual Expense</u> (1)	<u>Revenue (Lead) Lag Days</u> (2)	<u>Expense (Lead) Lag Days</u> (3)	<u>Net (Lead) Lag Days</u> (4)	<u>Net Day Weighted Amount</u> (5)	<u>Source</u> (6)
1	Total Revenue Lag		46.36				Page 2 of 4 - Line 8
2							
3	Total Expense Lag						
4	Purchased Gas Acct 804	<u>\$29,182,381</u>	46.36	36.34	10.02	<u>\$292,333,801</u>	W/P Supporting Page 123
5	Total Purchased Gas Expenses for CWC	<u>\$29,182,381</u>				<u>\$292,333,801</u>	
6							
7							
8	Net of Revenue less Expense Lag	\$29,182,381	46.36	36.34	10.02	\$292,333,801	
9	Days					366	
10							
11							
12	Working Capital Percent					<u><u>2.7370%</u></u>	Line 8 Col 4/ Line 9
13							
14							
15							
16							
17							
18							
19							
20							

Northern Utilities, Inc. – New Hampshire
Number of Days Delay Between Receipt of Revenue and
Distribution Services to Gas Customers
Based on 2016 Data

Line No.	Description	Customers Number of Days Delay
1	Revenue Lag:	
2	Receipt of Gas Service to Meter Reading	15.25 days
3	Meter Reading to Recording of Accounts Receivable	1.04 days
4	Billing to Collection	30.07 days
5	Subtotal Revenue Lag Days	46.36 days

**Receipt of Gas Service to Meter Reading
Average Days Delay**

January 1, 2016 to December 31, 2016 Number of Days

December	
January	31
February	29
March	32
April	30
May	31
June	30
July	31
August	31
September	30
October	31
November	30
December	31

1 29 Day Month	1*29	29
4 30 Day Months	4*30	120
7 31 Day Months	7*31	<u>217</u>
	Total	366 days

$$366 \text{ Days} / 12 \text{ Months} / 2 = \underline{\underline{15.25 \text{ days}}}$$

Northern Utilities, Inc. – New Hampshire
Meter Reading to Recording of
Accounts Receivable

Month	Average Days
January 2016	1.05
February 2016	1.02
March 2016	1.02
April 2016	1.01
May 2016	1.02
June 2016	1.04
July 2016	1.02
August 2016	1.02
September 2016	1.08
October 2016	1.08
November 2016	1.03
December 2016	1.04
Average	1.04

**Northern Utilities, Inc. – New Hampshire
Meter Reading to Recording of
Accounts Receivable
Monthly Detail**

January 2016

Days Lag	Number of Meters	Percent of Meters	Days Lag Multiplier	Weighted Days Lag
1	30,986	98.73%	1	0.99
2	202	0.64%	2	0.01
3	32	0.10%	3	0.00
4	10	0.03%	4	0.00
5	24	0.08%	5	0.00
6	14	0.04%	6	0.00
7	3	0.01%	7	0.00
8-14	112	0.36%	11	0.04
Over 14	3	0.01%	14	0.00
Total	31,386	100.00%		<u>1.05</u>

February 2016

Days Lag	Number of Meters	Percent of Meters	Days Lag Multiplier	Weighted Days Lag
1	31,185	99.28%	1	0.99
2	112	0.36%	2	0.01
3	27	0.09%	3	0.00
4	30	0.10%	4	0.00
5	17	0.05%	5	0.00
6	11	0.04%	6	0.00
7	10	0.03%	7	0.00
8 to 14	15	0.05%	11	0.01
Over 14	4	0.01%	14	0.00
Total	31,411	100.00%		<u>1.02</u>

March 2016

Days Lag	Number of Meters	Percent of Meters	Days Lag Multiplier	Wtd Days Lag
1	31,203	99.21%	1	0.99
2	150	0.48%	2	0.01
3	44	0.14%	3	0.00
4	26	0.08%	4	0.00
5	11	0.03%	5	0.00
6	5	0.02%	6	0.00
7	6	0.02%	7	0.00
8 to 14	4	0.01%	11	0.00
Over 14	4	0.01%	14	0.00
Total	31,453	100.00%		<u>1.02</u>

**Northern Utilities, Inc. – New Hampshire
Meter Reading to Recording of
Accounts Receivable
Monthly Detail**

April 2016

Days Lag	Number of Meters	Percent of Meters	Days Lag Multiplier	Wtd Days Lag
1	31,232	99.62%	1	1.00
2	41	0.13%	2	0.00
3	26	0.08%	3	0.00
4	15	0.05%	4	0.00
5	14	0.04%	5	0.00
6	8	0.03%	6	0.00
7	4	0.01%	7	0.00
8 to 14	11	0.04%	11	0.00
Over 14	-	0.00%	14	0.00
Total	31,351	100.00%		<u>1.01</u>

May 2016

Days Lag	Number of Meters	Percent of Meters	Days Lag Multiplier	Wtd Days Lag
1	30,972	99.21%	1	0.99
2	125	0.40%	2	0.01
3	20	0.06%	3	0.00
4	33	0.11%	4	0.00
5	14	0.04%	5	0.00
6	21	0.07%	6	0.00
7	13	0.04%	7	0.00
8 to 14	13	0.04%	11	0.00
Over 14	7	0.02%	14	0.00
Total	31,218	100.00%		<u>1.02</u>

June 2016

Days Lag	Number of Meters	Percent of Meters	Days Lag Multiplier	Wtd Days Lag
1	30,141	97.32%	1	0.97
2	711	2.30%	2	0.05
3	30	0.10%	3	0.00
4	49	0.16%	4	0.01
5	18	0.06%	5	0.00
6	6	0.02%	6	0.00
7	2	0.01%	7	0.00
8 to 14	14	0.05%	11	0.00
Over 14	1	0.00%	14	0.00
Total	30,972	100.00%		<u>1.04</u>

**Northern Utilities, Inc. – New Hampshire
Meter Reading to Recording of
Accounts Receivable
Monthly Detail**

July 2016

Days Lag	Number of Meters	Percent of Meters	Days Lag Multiplier	Wtd Days Lag
1	30,806	99.05%	1	0.99
2	177	0.57%	2	0.01
3	65	0.21%	3	0.01
4	15	0.05%	4	0.00
5	12	0.04%	5	0.00
6	4	0.01%	6	0.00
7	6	0.02%	7	0.00
8 to 14	17	0.05%	11	0.01
Over 14	1	0.00%	14	0.00
Total	31,103	100.00%		1.02

August 2016

Days Lag	Number of Meters	Percent of Meters	Days Lag Multiplier	Wtd Days Lag
1	30,545	99.29%	1	0.99
2	104	0.34%	2	0.01
3	42	0.14%	3	0.00
4	21	0.07%	4	0.00
5	27	0.09%	5	0.00
6	2	0.01%	6	0.00
7	7	0.02%	7	0.00
8 to 14	12	0.04%	11	0.00
Over 14	3	0.01%	14	0.00
Total	30,763	100.00%		1.02

September 2016

Days Lag	Number of Meters	Percent of Meters	Days Lag Multiplier	Wtd Days Lag
1	29,084	94.04%	1	0.94
2	1,613	5.22%	2	0.10
3	140	0.45%	3	0.01
4	27	0.09%	4	0.00
5	8	0.03%	5	0.00
6	11	0.04%	6	0.00
7	9	0.03%	7	0.00
8 to 14	34	0.11%	11	0.01
Over 14	2	0.01%	14	0.00
Total	30,928	100.00%		1.08

**Northern Utilities, Inc. – New Hampshire
Meter Reading to Recording of
Accounts Receivable
Monthly Detail**

October 2016

Days Lag	Number of Meters	Percent of Meters	Days Lag Multiplier	Wtd Days Lag
1	28,609	92.23%	1	0.92
2	2,367	7.63%	2	0.15
3	20	0.06%	3	0.00
4	7	0.02%	4	0.00
5	5	0.02%	5	0.00
6	6	0.02%	6	0.00
7	-	0.00%	7	0.00
8 to 14	3	0.01%	11	0.00
Over 14	2	0.01%	14	0.00
Total	31,019	100.00%		1.08

November 2016

Days Lag	Number of Meters	Percent of Meters	Days Lag Multiplier	Wtd Days Lag
1	30,987	98.08%	1	0.98
2	473	1.50%	2	0.03
3	45	0.14%	3	0.00
4	36	0.11%	4	0.00
5	23	0.07%	5	0.00
6	12	0.04%	6	0.00
7	9	0.03%	7	0.00
8 to 14	7	0.02%	11	0.00
Over 14	2	0.01%	14	0.00
Total	31,594	100.00%		1.03

December 2016

Days Lag	Number of Meters	Percent of Meters	Days Lag Multiplier	Wtd Days Lag
1	31,227	98.30%	1	0.98
2	425	1.34%	2	0.03
3	23	0.07%	3	0.00
4	11	0.03%	4	0.00
5	20	0.06%	5	0.00
6	11	0.03%	6	0.00
7	5	0.02%	7	0.00
8 to 14	42	0.13%	11	0.01
Over 14	2	0.01%	14	0.00
Total	31,766	100.00%		1.04

Northern Utilities, Inc. – New Hampshire Number Of Days Lag In Billing To Collection Twelve Months Average 12/15 - 12/16				
Month	Days in Month	Gas Sales Revenues	Daily Average (1/Days)	Accounts Receivable Gas Sales
		(1)	(2)	(3)
2016				
				4,603,006
January	31	7,574,507	244,339	6,585,713
February	29	8,435,545	290,881	7,521,833
March	32	7,389,048	230,908	6,959,969
April	30	5,927,027	197,568	6,096,861
May	31	3,615,679	116,635	3,964,253
June	30	2,246,669	74,889	2,717,042
July	31	1,973,492	63,661	2,354,251
August	31	2,073,402	66,884	2,140,731
September	30	2,036,937	67,898	2,121,748
October	31	2,469,790	79,671	2,273,513
November	30	2,097,353	69,912	3,603,314
December	31	7,459,955	240,644	5,875,288
Total		\$ 53,299,405	\$ 1,743,888	\$ 56,817,519
Average		\$ 4,441,617	\$ 145,324	\$ 4,370,578
Payment Lag Days (3/2)				30.07

Note: Accounts Receivable balances exclude write-offs and include protected receivables.

Revenues and accounts receivable balances are per the CIS Billing system.

Northern Utilities, Inc. - New Hampshire Division
Calculation of Payroll Lag Days
12 Months Ended Dec 31, 2016
Summary Total Payroll Lead Lag Summary - ADP and Non ADP

5/18/2017
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Line No	Gross Payroll Items	Amount	(Lead) Lag Days	Weighted Dollar Days
1				
2	<u>Regular Payroll</u>			
3	Total ADP Weekly & Semi Monthly	\$876,586	5.44	\$4,769,086
4				
5	Total Non ADP Weekly & Semi Monthly	\$197,138	49.52	\$9,762,662
6				
7	Total Weekly & Semi Monthly Payroll	<u>\$1,073,724</u>	13.53	<u>\$14,531,748</u>
8				
9				
10				
11	<u>Incentive Payroll</u>			
12	Total ADP Weekly & Semi Monthly	\$72,980	220.50	\$16,092,002
13				
14	Total Non ADP Weekly & Semi Monthly	\$581	220.50	\$128,199
15				
16	Total Weekly & Semi Monthly Payroll	<u>\$73,561</u>	220.50	<u>\$16,220,201</u>
17				
18	Total Gross Payroll	<u>\$1,147,285</u>		
19				
20				
21	<u>Test Year Payroll O&M Expense</u>	<u>O&M Payroll</u>	<u>Percent</u>	
22	Non Union Payroll	\$458,675	0	13.53
23	Union Payroll	\$1,541,082	1	13.53
24	Incentive Payroll O&M	\$9,073		220.50
25	Vacation Payroll O&M	\$129,704		91.72
26	Total O&M Payroll	<u>\$2,138,534</u>	100.00%	<u>19.15</u>
27				
28	Total Direct Labor O&M	\$2,129,461		18.30
29	Incentive Payroll O&M	\$9,073		220.50
30	Total O&M Payroll	<u>\$2,138,534</u>		<u>19.15</u>
31				
32				

Northern Utilities, Inc. - New Hampshire Division
Calculation of Payroll Lag Days
12 Months Ended Dec 31, 2016
Non ADP Payroll Deductions Lead Lag Summary

5/18/2017
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Line No	Gross Payroll Items	Amount	(Lead) Lag Days	Weighted Dollar Days
1				
2	<u>Weekly</u>			
3	401K Loan	\$24,278	8.28	\$200,906
4	401K Tax Deferred	\$65,858	8.27	\$544,333
5	Health Insurance Premium	\$34,091	84.33	\$2,874,975
6	Health Savings Account	\$1,530	7.21	\$11,030
7	Dental Premium	\$2,490	84.33	\$209,973
8	Vision Premium	\$555	38.71	\$21,490
9	Supplemental Life Premium	\$5,277	2.18	\$11,493
10	Supplemental AD&D Premium	\$381	2.41	\$920
11	Bonds	\$0	0.00	\$0
12	Stock Purchase	\$1,050	64.93	\$68,175
13	Charity	\$56	16.07	\$900
14	PC Purchase Loan	\$945	-334.58	-\$316,027
15	Activity Prizes	\$944	0.00	\$0
16	Award	\$0	0.00	\$0
17	Miscellaneous	-\$804	7.00	-\$5,628
18	Union Dues	\$9,183	7.93	\$72,808
19	Medical Care Account	\$1,000	7.10	\$7,100
20	Dependent Care	\$0	0.00	\$0
21	Auto Adjustment	\$5,187	229.51	\$1,190,444
22	Edadn	\$0	0.00	\$0
23				
24	Total Weekly Payroll	<u>\$152,020</u>	32.19	<u>\$4,892,890</u>
25				
26				
27	<u>Semi Monthly</u>			
28	401K Loan	\$2,235	13.33	\$29,804
29	401K Tax Deferred	\$23,436	13.33	\$312,479
30	Health Insurance Premium	\$933	84.33	\$78,697
31	Health Savings Account	\$1,350	12.50	\$16,875
32	Dental Premium	\$485	84.33	\$40,895
33	Vision Premium	\$59	30.33	\$1,798
34	Supplemental Life Premium	\$85	0.00	\$0
35	Supplemental AD&D Premium	\$45	0.00	\$0
36	Bonds	\$0	0.00	\$0
37	Stock Purchase	\$150	64.67	\$9,700
38	Charity	\$336	13.33	\$4,480
39	PC Purchase Loan	\$93	-334.58	-\$30,956
40	Activity Prizes	\$0	0.00	\$0
41	Award	\$0	0.00	\$0
42	Miscellaneous	\$0	0.00	\$0
43	Union Dues	\$0	0.00	\$0
44	Medical Care Account	\$638	12.50	\$7,969
45	Dependent Care	\$0	0.00	\$0
46	Auto Adjustment	\$15,273	287.97	\$4,398,031
47	Edadn	\$0	0.00	\$0
48				
49	Total Semi Monthly Payroll	<u>\$45,117</u>	107.94	<u>\$4,869,772</u>
50				
51				
52	Total Weekly & Semi Monthly	<u>\$197,138</u>	49.52	<u>\$9,762,662</u>
53				
54				
55	<u>Incentive Pay</u>			
56	401K Tax Deferred	\$581	220.50	\$128,199
57				
58	Total Incentive Payroll	<u>\$581</u>	220.50	<u>\$128,199</u>
59				

Northern Utilities, Inc. - New Hampshire Division
Calculation of Payroll Lag Days
12 Months Ended Dec 31, 2016
Total Payroll Service

5/18/2017
11:48:26 AM

Line No	Payroll Description	Gross Pay Amount	Total ADP Payroll Deductions	Total Non ADP Payroll Deductions	Difference
1	<u>Weekly</u>				
2					
3	10/1/2016	\$60,358	\$49,777	\$10,581	\$0
4	10/8/2016	\$62,692	\$52,439	\$10,253	\$0
5	10/15/2016	\$64,115	\$53,332	\$10,783	\$0
6	10/22/2016	\$62,526	\$52,816	\$9,710	\$0
7	10/29/2016	\$62,667	\$52,232	\$10,435	\$0
8	11/5/2016	\$63,892	\$53,322	\$10,570	\$0
9	11/12/2016	\$62,523	\$51,807	\$10,716	\$0
10	11/19/2016	\$59,308	\$49,259	\$10,049	\$0
11	11/26/2016	\$56,245	\$46,085	\$10,160	\$0
12	12/3/2016	\$61,756	\$51,302	\$10,454	\$0
13	12/10/2016	\$61,831	\$48,887	\$12,944	\$0
14	12/17/2016	\$68,401	\$54,382	\$14,019	\$0
15	12/24/2016	\$60,814	\$50,411	\$10,402	\$0
16	12/31/2016	\$77,912	\$66,968	\$10,944	\$0
17					
18		<u>\$885,039</u>	<u>\$733,019</u>	<u>\$152,020</u>	\$0
19					
20					
21	<u>Semi Monthly</u>				
22					
23	10/15/2016	\$29,782	\$24,808	\$4,974	\$0
24	10/31/2016	\$27,782	\$22,808	\$4,974	\$0
25	11/15/2016	\$29,782	\$24,808	\$4,974	\$0
26	11/30/2016	\$36,830	\$22,808	\$14,023	\$0
27	12/15/2016	\$36,406	\$25,208	\$11,198	\$0
28	12/31/2016	\$28,103	\$23,128	\$4,974	\$0
29					
30		<u>\$188,684</u>	<u>\$143,567</u>	<u>\$45,117</u>	\$0
31					
32					
33	<u>Incentive Pay</u>				
34	February 2017				
35	Incentive Pay-Weekly	\$9,633	\$9,052	\$581	\$0
35	Incentive Pay-Salary	\$63,928	\$63,928	\$0	\$0
37		<u>\$73,561</u>	<u>\$72,980</u>	<u>\$581</u>	
38					
39					
40	Total	<u>\$1,147,285</u>	<u>\$949,566</u>	<u>\$197,719</u>	\$0
41					

Northern Utilities, Inc. - New Hampshire Division
Calculation of Payroll Lag Days
12 Months Ended Dec 31, 2016
401K Loan

5/18/2017
11:48:26 AM

Line No	Payroll Description	Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Payment Date	(Lead) Lag Days	Weighted Dollar Days
			<u>Start</u>	<u>End</u>				<u>Days</u>	
1	<u>Weekly</u>								
2									
3	10/1/2016	\$1,734	9/25/16 12:00 AM	10/2/16 12:00 AM	7	9/28/16 12:00 PM	10/6/16 12:00 PM	8.00	\$13,876
4	10/8/2016	\$1,638	10/2/16 12:00 AM	10/9/16 12:00 AM	7	10/5/16 12:00 PM	10/13/16 12:00 PM	8.00	\$13,104
5	10/15/2016	\$1,790	10/9/16 12:00 AM	10/16/16 12:00 AM	7	10/12/16 12:00 PM	10/20/16 12:00 PM	8.00	\$14,316
6	10/22/2016	\$1,714	10/16/16 12:00 AM	10/23/16 12:00 AM	7	10/19/16 12:00 PM	10/27/16 12:00 PM	8.00	\$13,710
7	10/29/2016	\$1,714	10/23/16 12:00 AM	10/30/16 12:00 AM	7	10/26/16 12:00 PM	11/3/16 12:00 PM	8.00	\$13,710
8	11/5/2016	\$1,714	10/30/16 12:00 AM	11/6/16 12:00 AM	7	11/2/16 12:00 PM	11/10/16 12:00 PM	8.00	\$13,710
9	11/12/2016	\$1,714	11/6/16 12:00 AM	11/13/16 12:00 AM	7	11/9/16 12:00 PM	11/17/16 12:00 PM	8.00	\$13,710
10	11/19/2016	\$1,671	11/13/16 12:00 AM	11/20/16 12:00 AM	7	11/16/16 12:00 PM	11/28/16 12:00 PM	12.00	\$20,053
11	11/26/2016	\$1,695	11/20/16 12:00 AM	11/27/16 12:00 AM	7	11/23/16 12:00 PM	12/1/16 12:00 PM	8.00	\$13,558
12	12/3/2016	\$1,695	11/27/16 12:00 AM	12/4/16 12:00 AM	7	11/30/16 12:00 PM	12/8/16 12:00 PM	8.00	\$13,558
13	12/10/2016	\$1,823	12/4/16 12:00 AM	12/11/16 12:00 AM	7	12/7/16 12:00 PM	12/15/16 12:00 PM	8.00	\$14,581
14	12/17/2016	\$1,823	12/11/16 12:00 AM	12/18/16 12:00 AM	7	12/14/16 12:00 PM	12/22/16 12:00 PM	8.00	\$14,581
15	12/24/2016	\$1,732	12/18/16 12:00 AM	12/25/16 12:00 AM	7	12/21/16 12:00 PM	12/29/16 12:00 PM	8.00	\$13,855
16	12/31/2016	\$1,823	12/25/16 12:00 AM	1/1/17 12:00 AM	7	12/28/16 12:00 PM	1/5/17 12:00 PM	8.00	\$14,583
17									
18		<u>\$24,278</u>						8.28	<u>\$200,906</u>
19									
20									
21	<u>Semi Monthly</u>								
22									
23	10/15/2016	\$373	10/1/16 12:00 AM	10/16/16 12:00 AM	15	10/8/16 12:00 PM	10/20/16 12:00 PM	12.00	\$4,471
24	10/31/2016	\$373	10/16/16 12:00 AM	11/1/16 12:00 AM	16	10/24/16 12:00 AM	11/10/16 12:00 PM	17.50	\$6,520
25	11/15/2016	\$373	11/1/16 12:00 AM	11/16/16 12:00 AM	15	11/8/16 12:00 PM	11/17/16 12:00 PM	9.00	\$3,353
26	11/30/2016	\$373	11/16/16 12:00 AM	12/1/16 12:00 AM	15	11/23/16 12:00 PM	12/8/16 12:00 PM	15.00	\$5,588
27	12/15/2016	\$373	12/1/16 12:00 AM	12/16/16 12:00 AM	15	12/8/16 12:00 PM	12/22/16 12:00 PM	14.00	\$5,216
28	12/31/2016	\$373	12/16/16 12:00 AM	1/1/17 12:00 AM	16	12/24/16 12:00 AM	1/5/17 12:00 PM	12.50	\$4,657
29									
30		<u>\$2,235</u>						13.33	<u>\$29,804</u>
31									
32									
33									
34									
35	Total	<u>\$26,513</u>							
36									
37									
38									
39	Payment date indicates the wire release date in Dataview.								
40									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Payroll Lag Days
12 Months Ended Dec 31, 2016
401K Tax Deferred

5/18/2017
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Line No	Payroll Description	Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Payment Date	(Lead) Lag Days	Weighted Dollar Days
			<u>Start</u>	<u>End</u>					
1	<u>Weekly</u>								
2									
3	10/1/2016	\$4,874	9/25/16 12:00 AM	10/2/16 12:00 AM	7	9/28/16 12:00 PM	10/6/16 12:00 PM	8.00	\$38,996
4	10/8/2016	\$4,713	10/2/16 12:00 AM	10/9/16 12:00 AM	7	10/5/16 12:00 PM	10/13/16 12:00 PM	8.00	\$37,702
5	10/15/2016	\$4,875	10/9/16 12:00 AM	10/16/16 12:00 AM	7	10/12/16 12:00 PM	10/20/16 12:00 PM	8.00	\$38,999
6	10/22/2016	\$4,752	10/16/16 12:00 AM	10/23/16 12:00 AM	7	10/19/16 12:00 PM	10/27/16 12:00 PM	8.00	\$38,012
7	10/29/2016	\$4,675	10/23/16 12:00 AM	10/30/16 12:00 AM	7	10/26/16 12:00 PM	11/3/16 12:00 PM	8.00	\$37,398
8	11/5/2016	\$4,846	10/30/16 12:00 AM	11/6/16 12:00 AM	7	11/2/16 12:00 PM	11/10/16 12:00 PM	8.00	\$38,767
9	11/12/2016	\$4,992	11/6/16 12:00 AM	11/13/16 12:00 AM	7	11/9/16 12:00 PM	11/17/16 12:00 PM	8.00	\$39,937
10	11/19/2016	\$4,368	11/13/16 12:00 AM	11/20/16 12:00 AM	7	11/16/16 12:00 PM	11/28/16 12:00 PM	12.00	\$52,410
11	11/26/2016	\$4,455	11/20/16 12:00 AM	11/27/16 12:00 AM	7	11/23/16 12:00 PM	12/1/16 12:00 PM	8.00	\$35,639
12	12/3/2016	\$4,749	11/27/16 12:00 AM	12/4/16 12:00 AM	7	11/30/16 12:00 PM	12/8/16 12:00 PM	8.00	\$37,992
13	12/10/2016	\$4,522	12/4/16 12:00 AM	12/11/16 12:00 AM	7	12/7/16 12:00 PM	12/15/16 12:00 PM	8.00	\$36,178
14	12/17/2016	\$4,642	12/11/16 12:00 AM	12/18/16 12:00 AM	7	12/14/16 12:00 PM	12/22/16 12:00 PM	8.00	\$37,136
15	12/24/2016	\$4,679	12/18/16 12:00 AM	12/25/16 12:00 AM	7	12/21/16 12:00 PM	12/29/16 12:00 PM	8.00	\$37,430
16	12/31/2016	\$4,717	12/25/16 12:00 AM	1/1/17 12:00 AM	7	12/28/16 12:00 PM	1/5/17 12:00 PM	8.00	\$37,737
17									
18		<u>\$65,858</u>						8.27	<u>\$544,333</u>
19									
20									
21	<u>Semi Monthly</u>								
22									
23	10/15/2016	\$3,906	10/1/16 12:00 AM	10/16/16 12:00 AM	15	10/8/16 12:00 PM	10/20/16 12:00 PM	12.00	\$46,872
24	10/31/2016	\$3,906	10/16/16 12:00 AM	11/1/16 12:00 AM	16	10/24/16 12:00 AM	11/10/16 12:00 PM	17.50	\$68,355
25	11/15/2016	\$3,906	11/1/16 12:00 AM	11/16/16 12:00 AM	15	11/8/16 12:00 PM	11/17/16 12:00 PM	9.00	\$35,154
26	11/30/2016	\$3,906	11/16/16 12:00 AM	12/1/16 12:00 AM	15	11/23/16 12:00 PM	12/8/16 12:00 PM	15.00	\$58,590
27	12/15/2016	\$3,906	12/1/16 12:00 AM	12/16/16 12:00 AM	15	12/8/16 12:00 PM	12/22/16 12:00 PM	14.00	\$54,684
28	12/31/2016	\$3,906	12/16/16 12:00 AM	1/1/17 12:00 AM	16	12/24/16 12:00 AM	1/5/17 12:00 PM	12.50	\$48,825
29									
30		<u>\$23,436</u>						13.33	<u>\$312,479</u>
31									
32									
33	<u>Incentive Pay</u>								
34	February 2017								
35	Incentive Pay-Weekly	\$581	1/1/16 12:00 AM	1/1/17 12:00 AM	366	7/2/16 12:00 AM	2/7/17 12:00 PM	220.50	\$128,199
36	Incentive Pay-Salary	\$0	1/1/16 12:00 AM	1/1/17 12:00 AM	366	7/2/16 12:00 AM			\$0
37		<u>\$581</u>						220.50	<u>\$128,199</u>
38									
39	Annualized Lag	<u>\$357,756</u>						9.94	<u>\$3,555,446</u>
40									
41	Payment date indicates the check date in Dataview.								

Northern Utilities, Inc. - New Hampshire Division
Calculation of Payroll Lag Days
12 Months Ended Dec 31, 2016
Health Insurance Premium

5/18/2017
11:48:26 AM

Line No	Payroll Description	Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Payment Date	(Lead) Lag Days	Weighted Dollar Days
			Start	End					
1	<u>Weekly</u>								
2									
3	10/1/2016	\$2,369	9/25/16 12:00 AM	10/2/16 12:00 AM	7	9/28/16 12:00 PM		84.33	\$199,769
4	10/8/2016	\$2,327	10/2/16 12:00 AM	10/9/16 12:00 AM	7	10/5/16 12:00 PM		84.33	\$196,235
5	10/15/2016	\$2,483	10/9/16 12:00 AM	10/16/16 12:00 AM	7	10/12/16 12:00 PM		84.33	\$209,384
6	10/22/2016	\$2,441	10/16/16 12:00 AM	10/23/16 12:00 AM	7	10/19/16 12:00 PM		84.33	\$205,851
7	10/29/2016	\$2,441	10/23/16 12:00 AM	10/30/16 12:00 AM	7	10/26/16 12:00 PM		84.33	\$205,851
8	11/5/2016	\$2,405	10/30/16 12:00 AM	11/6/16 12:00 AM	7	11/2/16 12:00 PM		84.33	\$202,810
9	11/12/2016	\$2,405	11/6/16 12:00 AM	11/13/16 12:00 AM	7	11/9/16 12:00 PM		84.33	\$202,810
10	11/19/2016	\$2,405	11/13/16 12:00 AM	11/20/16 12:00 AM	7	11/16/16 12:00 PM		84.33	\$202,810
11	11/26/2016	\$2,405	11/20/16 12:00 AM	11/27/16 12:00 AM	7	11/23/16 12:00 PM		84.33	\$202,810
12	12/3/2016	\$2,405	11/27/16 12:00 AM	12/4/16 12:00 AM	7	11/30/16 12:00 PM		84.33	\$202,810
13	12/10/2016	\$2,405	12/4/16 12:00 AM	12/11/16 12:00 AM	7	12/7/16 12:00 PM		84.33	\$202,810
14	12/17/2016	\$2,405	12/11/16 12:00 AM	12/18/16 12:00 AM	7	12/14/16 12:00 PM		84.33	\$202,810
15	12/24/2016	\$2,405	12/18/16 12:00 AM	12/25/16 12:00 AM	7	12/21/16 12:00 PM		84.33	\$202,810
16	12/31/2016	\$2,791	12/25/16 12:00 AM	1/1/17 12:00 AM	7	12/28/16 12:00 PM		84.33	\$235,409
17									
18		<u>\$34,091</u>						84.33	<u>\$2,874,975</u>
19									
20									
21	<u>Semi Monthly</u>								
22									
23	10/15/2016	\$156	10/1/16 12:00 AM	10/16/16 12:00 AM	15	10/8/16 12:00 PM		84.33	\$13,116
24	10/31/2016	\$156	10/16/16 12:00 AM	11/1/16 12:00 AM	16	10/24/16 12:00 AM		84.33	\$13,116
25	11/15/2016	\$156	11/1/16 12:00 AM	11/16/16 12:00 AM	15	11/8/16 12:00 PM		84.33	\$13,116
26	11/30/2016	\$156	11/16/16 12:00 AM	12/1/16 12:00 AM	15	11/23/16 12:00 PM		84.33	\$13,116
27	12/15/2016	\$156	12/1/16 12:00 AM	12/16/16 12:00 AM	15	12/8/16 12:00 PM		84.33	\$13,116
28	12/31/2016	\$156	12/16/16 12:00 AM	1/1/17 12:00 AM	16	12/24/16 12:00 AM		84.33	\$13,116
29									
30		<u>\$933</u>						84.33	<u>\$78,697</u>
31									
32									
33									
34									
35	Total	<u>\$35,024</u>						84.33	<u>\$2,953,672</u>
36									
37									
38									
39	The employee 20 % contribution toward health insurance is an offset to the expense.								
40	NU is self insured.								
41									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Payroll Lag Days
12 Months Ended Dec 31, 2016
Health Savings Account

5/18/2017
11:48:26 AM

Line No	Payroll Description	Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Payment Date	(Lead) Lag Days	Weighted Dollar Days
			<u>Start</u>	<u>End</u>					
1	<u>Weekly</u>								
2									
3	10/1/2016	\$110	9/25/16 12:00 AM	10/2/16 12:00 AM	7	9/28/16 12:00 PM	10/8/16 12:00 PM	10.00	\$1,100
4	10/8/2016	\$110	10/2/16 12:00 AM	10/9/16 12:00 AM	7	10/5/16 12:00 PM	10/12/16 12:00 PM	7.00	\$770
5	10/15/2016	\$110	10/9/16 12:00 AM	10/16/16 12:00 AM	7	10/12/16 12:00 PM	10/19/16 12:00 PM	7.00	\$770
6	10/22/2016	\$110	10/16/16 12:00 AM	10/23/16 12:00 AM	7	10/19/16 12:00 PM	10/26/16 12:00 PM	7.00	\$770
7	10/29/2016	\$110	10/23/16 12:00 AM	10/30/16 12:00 AM	7	10/26/16 12:00 PM	11/2/16 12:00 PM	7.00	\$770
8	11/5/2016	\$110	10/30/16 12:00 AM	11/6/16 12:00 AM	7	11/2/16 12:00 PM	11/9/16 12:00 PM	7.00	\$770
9	11/12/2016	\$110	11/6/16 12:00 AM	11/13/16 12:00 AM	7	11/9/16 12:00 PM	11/16/16 12:00 PM	7.00	\$770
10	11/19/2016	\$110	11/13/16 12:00 AM	11/20/16 12:00 AM	7	11/16/16 12:00 PM	11/23/16 12:00 PM	7.00	\$770
11	11/26/2016	\$110	11/20/16 12:00 AM	11/27/16 12:00 AM	7	11/23/16 12:00 PM	11/30/16 12:00 PM	7.00	\$770
12	12/3/2016	\$110	11/27/16 12:00 AM	12/4/16 12:00 AM	7	11/30/16 12:00 PM	12/7/16 12:00 PM	7.00	\$770
13	12/10/2016	\$110	12/4/16 12:00 AM	12/11/16 12:00 AM	7	12/7/16 12:00 PM	12/12/16 12:00 PM	5.00	\$550
14	12/17/2016	\$110	12/11/16 12:00 AM	12/18/16 12:00 AM	7	12/14/16 12:00 PM	12/21/16 12:00 PM	7.00	\$770
15	12/24/2016	\$110	12/18/16 12:00 AM	12/25/16 12:00 AM	7	12/21/16 12:00 PM	12/29/16 12:00 PM	8.00	\$880
16	12/31/2016	\$100	12/25/16 12:00 AM	1/1/17 12:00 AM	7	12/28/16 12:00 PM	1/5/17 12:00 PM	8.00	\$800
17									
18		<u>\$1,530</u>						7.21	<u>\$11,030</u>
19									
20									
21	<u>Semi Monthly</u>								
22									
23	10/15/2016	\$225	10/1/16 12:00 AM	10/16/16 12:00 AM	15	10/8/16 12:00 PM	10/19/16 12:00 PM	11.00	\$2,475
24	10/31/2016	\$225	10/16/16 12:00 AM	11/1/16 12:00 AM	16	10/24/16 12:00 AM	11/9/16 12:00 PM	16.50	\$3,713
25	11/15/2016	\$225	11/1/16 12:00 AM	11/16/16 12:00 AM	15	11/8/16 12:00 PM	11/16/16 12:00 PM	8.00	\$1,800
26	11/30/2016	\$225	11/16/16 12:00 AM	12/1/16 12:00 AM	15	11/23/16 12:00 PM	12/7/16 12:00 PM	14.00	\$3,150
27	12/15/2016	\$225	12/1/16 12:00 AM	12/16/16 12:00 AM	15	12/8/16 12:00 PM	12/21/16 12:00 PM	13.00	\$2,925
28	12/31/2016	\$225	12/16/16 12:00 AM	1/1/17 12:00 AM	16	12/24/16 12:00 AM	1/5/17 12:00 PM	12.50	\$2,813
29									
30		<u>\$1,350</u>						12.50	<u>\$16,875</u>
31									
32									
33									
34									
35	Total	<u>\$2,880</u>							
36									
37									
38									
39	Payment date indicates the check date in Dataview. Bancorp Bank.								
40									
41									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Payroll Lag Days
12 Months Ended Dec 31, 2016
Dental Premium

5/18/2017
11:48:26 AM

Line No	Payroll Description	Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	(Lead) Lag Days	Weighted Dollar Days
			Start	End				
1	<u>Weekly</u>							
2								
3	10/1/2016	\$175	9/25/16 12:00 AM	10/2/16 12:00 AM	7	9/28/16 12:00 PM	84.33	\$14,797
4	10/8/2016	\$173	10/2/16 12:00 AM	10/9/16 12:00 AM	7	10/5/16 12:00 PM	84.33	\$14,610
5	10/15/2016	\$182	10/9/16 12:00 AM	10/16/16 12:00 AM	7	10/12/16 12:00 PM	84.33	\$15,308
6	10/22/2016	\$179	10/16/16 12:00 AM	10/23/16 12:00 AM	7	10/19/16 12:00 PM	84.33	\$15,121
7	10/29/2016	\$177	10/23/16 12:00 AM	10/30/16 12:00 AM	7	10/26/16 12:00 PM	84.33	\$14,959
8	11/5/2016	\$177	10/30/16 12:00 AM	11/6/16 12:00 AM	7	11/2/16 12:00 PM	84.33	\$14,959
9	11/12/2016	\$177	11/6/16 12:00 AM	11/13/16 12:00 AM	7	11/9/16 12:00 PM	84.33	\$14,959
10	11/19/2016	\$177	11/13/16 12:00 AM	11/20/16 12:00 AM	7	11/16/16 12:00 PM	84.33	\$14,959
11	11/26/2016	\$177	11/20/16 12:00 AM	11/27/16 12:00 AM	7	11/23/16 12:00 PM	84.33	\$14,959
12	12/3/2016	\$177	11/27/16 12:00 AM	12/4/16 12:00 AM	7	11/30/16 12:00 PM	84.33	\$14,959
13	12/10/2016	\$177	12/4/16 12:00 AM	12/11/16 12:00 AM	7	12/7/16 12:00 PM	84.33	\$14,959
14	12/17/2016	\$177	12/11/16 12:00 AM	12/18/16 12:00 AM	7	12/14/16 12:00 PM	84.33	\$14,959
15	12/24/2016	\$177	12/18/16 12:00 AM	12/25/16 12:00 AM	7	12/21/16 12:00 PM	84.33	\$14,959
16	12/31/2016	\$184	12/25/16 12:00 AM	1/1/17 12:00 AM	7	12/28/16 12:00 PM	84.33	\$15,507
17								
18		<u>\$2,490</u>					84.33	<u>\$209,973</u>
19								
20								
21	<u>Semi Monthly</u>							
22								
23	10/15/2016	\$81	10/1/16 12:00 AM	10/16/16 12:00 AM	15	10/8/16 12:00 PM	84.33	\$6,816
24	10/31/2016	\$81	10/16/16 12:00 AM	11/1/16 12:00 AM	16	10/24/16 12:00 AM	84.33	\$6,816
25	11/15/2016	\$81	11/1/16 12:00 AM	11/16/16 12:00 AM	15	11/8/16 12:00 PM	84.33	\$6,816
26	11/30/2016	\$81	11/16/16 12:00 AM	12/1/16 12:00 AM	15	11/23/16 12:00 PM	84.33	\$6,816
27	12/15/2016	\$81	12/1/16 12:00 AM	12/16/16 12:00 AM	15	12/8/16 12:00 PM	84.33	\$6,816
28	12/31/2016	\$81	12/16/16 12:00 AM	1/1/17 12:00 AM	16	12/24/16 12:00 AM	84.33	\$6,816
29								
30		<u>\$485</u>					84.33	<u>\$40,895</u>
31								
32								
33								
34								
35	Total	<u>\$2,975</u>					84.33	<u>\$250,867</u>
36								
37								
38								

The employee 20% contribution toward dental insurance is an offset to the expense.
NU is self insured.

Lag days based on Health Insurance Premium lag

Northern Utilities, Inc. - New Hampshire Division
Calculation of Payroll Lag Days
12 Months Ended Dec 31, 2016
Vision Premium

5/18/2017
11:48:26 AM

Line No	Payroll Description	Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Payment Date	(Lead) Lag Days	Weighted Dollar Days
			<u>Start</u>	<u>End</u>					
1	<u>Weekly</u>								
2									
3	10/1/2016	\$39	9/25/16 12:00 AM	10/2/16 12:00 AM	7	9/28/16 12:00 PM	11/6/16 12:00 PM	39.00	\$1,526
4	10/8/2016	\$39	10/2/16 12:00 AM	10/9/16 12:00 AM	7	10/5/16 12:00 PM	11/13/16 12:00 PM	39.00	\$1,526
5	10/15/2016	\$40	10/9/16 12:00 AM	10/16/16 12:00 AM	7	10/12/16 12:00 PM	11/20/16 12:00 PM	39.00	\$1,567
6	10/22/2016	\$40	10/16/16 12:00 AM	10/23/16 12:00 AM	7	10/19/16 12:00 PM	11/27/16 12:00 PM	39.00	\$1,567
7	10/29/2016	\$40	10/23/16 12:00 AM	10/30/16 12:00 AM	7	10/26/16 12:00 PM	12/4/16 12:00 PM	39.00	\$1,546
8	11/5/2016	\$40	10/30/16 12:00 AM	11/6/16 12:00 AM	7	11/2/16 12:00 PM	12/10/16 12:00 PM	38.00	\$1,507
9	11/12/2016	\$40	11/6/16 12:00 AM	11/13/16 12:00 AM	7	11/9/16 12:00 PM	12/18/16 12:00 PM	39.00	\$1,546
10	11/19/2016	\$40	11/13/16 12:00 AM	11/20/16 12:00 AM	7	11/16/16 12:00 PM	12/23/16 12:00 PM	37.00	\$1,467
11	11/26/2016	\$40	11/20/16 12:00 AM	11/27/16 12:00 AM	7	11/23/16 12:00 PM	1/1/17 12:00 PM	39.00	\$1,546
12	12/3/2016	\$40	11/27/16 12:00 AM	12/4/16 12:00 AM	7	11/30/16 12:00 PM	1/8/17 12:00 PM	39.00	\$1,546
13	12/10/2016	\$40	12/4/16 12:00 AM	12/11/16 12:00 AM	7	12/7/16 12:00 PM	1/15/17 12:00 PM	39.00	\$1,546
14	12/17/2016	\$40	12/11/16 12:00 AM	12/18/16 12:00 AM	7	12/14/16 12:00 PM	1/21/17 12:00 PM	38.00	\$1,507
15	12/24/2016	\$40	12/18/16 12:00 AM	12/25/16 12:00 AM	7	12/21/16 12:00 PM	1/29/17 12:00 PM	39.00	\$1,546
16	12/31/2016	\$40	12/25/16 12:00 AM	1/1/17 12:00 AM	7	12/28/16 12:00 PM	2/5/17 12:00 PM	39.00	\$1,546
17									
18		<u>\$555</u>						38.71	<u>\$21,490</u>
19									
20									
21	<u>Semi Monthly</u>								
22									
23	10/15/2016	\$10	10/1/16 12:00 AM	10/16/16 12:00 AM	15	10/8/16 12:00 PM	11/6/16 12:00 PM	29.00	\$287
24	10/31/2016	\$10	10/16/16 12:00 AM	11/1/16 12:00 AM	16	10/24/16 12:00 AM	11/24/16 12:00 PM	31.50	\$311
25	11/15/2016	\$10	11/1/16 12:00 AM	11/16/16 12:00 AM	15	11/8/16 12:00 PM	12/10/16 12:00 PM	32.00	\$316
26	11/30/2016	\$10	11/16/16 12:00 AM	12/1/16 12:00 AM	15	11/23/16 12:00 PM	12/23/16 12:00 PM	30.00	\$296
27	12/15/2016	\$10	12/1/16 12:00 AM	12/16/16 12:00 AM	15	12/8/16 12:00 PM	1/8/17 12:00 PM	31.00	\$306
28	12/31/2016	\$10	12/16/16 12:00 AM	1/1/17 12:00 AM	16	12/24/16 12:00 AM	1/21/17 12:00 PM	28.50	\$282
29									
30		<u>\$59</u>						30.33	<u>\$1,798</u>
31									
32									
33									
34									
35	Total	<u>\$614</u>						37.91	<u>\$23,288</u>
36									
37									

NU is self insured for Vision.

The employee contribution toward vision insurance is an offset to the expense.

The lag until payment is made to the provider is estimated to be 30 days after the payroll deduction.

Northern Utilities, Inc. - New Hampshire Division
Calculation of Payroll Lag Days
12 Months Ended Dec 31, 2016
Supplemental Life Premium

5/18/2017
11:48:26 AM

Line No	Payroll Description	Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Payment Date	(Lead) Lag Days	Weighted Dollar Days
			<u>Start</u>	<u>End</u>					
1	<u>Weekly</u>								
2									
3	10/1/2016	\$371	9/25/16 12:00 AM	10/2/16 12:00 AM	7	9/28/16 12:00 PM	10/12/16 12:00 PM	14.00	\$5,198
4	10/8/2016	\$368	10/2/16 12:00 AM	10/9/16 12:00 AM	7	10/5/16 12:00 PM	10/12/16 12:00 PM	7.00	\$2,575
5	10/15/2016	\$375	10/9/16 12:00 AM	10/16/16 12:00 AM	7	10/12/16 12:00 PM	10/12/16 12:00 PM	0.00	\$0
6	10/22/2016	\$371	10/16/16 12:00 AM	10/23/16 12:00 AM	7	10/19/16 12:00 PM	10/12/16 12:00 PM	-7.00	-\$2,599
7	10/29/2016	\$371	10/23/16 12:00 AM	10/30/16 12:00 AM	7	10/26/16 12:00 PM	10/12/16 12:00 PM	-14.00	-\$5,198
8	11/5/2016	\$371	10/30/16 12:00 AM	11/6/16 12:00 AM	7	11/2/16 12:00 PM	11/21/16 12:00 PM	19.00	\$7,055
9	11/12/2016	\$371	11/6/16 12:00 AM	11/13/16 12:00 AM	7	11/9/16 12:00 PM	11/21/16 12:00 PM	12.00	\$4,456
10	11/19/2016	\$371	11/13/16 12:00 AM	11/20/16 12:00 AM	7	11/16/16 12:00 PM	11/21/16 12:00 PM	5.00	\$1,857
11	11/26/2016	\$371	11/20/16 12:00 AM	11/27/16 12:00 AM	7	11/23/16 12:00 PM	11/21/16 12:00 PM	-2.00	-\$743
12	12/3/2016	\$371	11/27/16 12:00 AM	12/4/16 12:00 AM	7	11/30/16 12:00 PM	12/14/16 12:00 PM	14.00	\$5,198
13	12/10/2016	\$371	12/4/16 12:00 AM	12/11/16 12:00 AM	7	12/7/16 12:00 PM	12/14/16 12:00 PM	7.00	\$2,599
14	12/17/2016	\$371	12/11/16 12:00 AM	12/18/16 12:00 AM	7	12/14/16 12:00 PM	12/14/16 12:00 PM	0.00	\$0
15	12/24/2016	\$371	12/18/16 12:00 AM	12/25/16 12:00 AM	7	12/21/16 12:00 PM	12/14/16 12:00 PM	-7.00	-\$2,599
16	12/31/2016	\$450	12/25/16 12:00 AM	1/1/17 12:00 AM	7	12/28/16 12:00 PM	12/14/16 12:00 PM	-14.00	-\$6,306
17									
18		<u>\$5,277</u>						2.18	<u>\$11,493</u>
19									
20									
21	<u>Semi Monthly</u>								
22									
23	10/15/2016	\$14	10/1/16 12:00 AM	10/16/16 12:00 AM	15	10/8/16 12:00 PM	10/12/16 12:00 PM	4.00	\$57
24	10/31/2016	\$14	10/16/16 12:00 AM	11/1/16 12:00 AM	16	10/24/16 12:00 AM	10/12/16 12:00 PM	-11.50	-\$163
25	11/15/2016	\$14	11/1/16 12:00 AM	11/16/16 12:00 AM	15	11/8/16 12:00 PM	11/21/16 12:00 PM	13.00	\$184
26	11/30/2016	\$14	11/16/16 12:00 AM	12/1/16 12:00 AM	15	11/23/16 12:00 PM	11/21/16 12:00 PM	-2.00	-\$28
27	12/15/2016	\$14	12/1/16 12:00 AM	12/16/16 12:00 AM	15	12/8/16 12:00 PM	12/14/16 12:00 PM	6.00	\$85
28	12/31/2016	\$14	12/16/16 12:00 AM	1/1/17 12:00 AM	16	12/24/16 12:00 AM	12/14/16 12:00 PM	-9.50	-\$134
29									
30		<u>\$85</u>						0.00	<u>\$0</u>
31									
32									
33									
34								2.14	<u>\$11,493</u>
35	Total Weighted Lag	<u>\$5,362</u>							
36									
37									
38									
39	Payment date indicates the check date in Dataview.								
40									
41									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Payroll Lag Days
12 Months Ended Dec 31, 2016
Supplemental AD&D Premium

5/18/2017
11:48:26 AM

Line No	Payroll Description	Net Payroll Amount	Service Period Start	End	Total Days	Midpoint Service Period	Payment Date	(Lead) Lag Days	Weighted Dollar Days
1	<u>Weekly</u>								
2									
3	10/1/2016	\$27	9/25/16 12:00 AM	10/2/16 12:00 AM	7	9/28/16 12:00 PM	10/12/16 12:00 PM	14.00	\$381
4	10/8/2016	\$26	10/2/16 12:00 AM	10/9/16 12:00 AM	7	10/5/16 12:00 PM	10/12/16 12:00 PM	7.00	\$185
5	10/15/2016	\$28	10/9/16 12:00 AM	10/16/16 12:00 AM	7	10/12/16 12:00 PM	10/12/16 12:00 PM	0.00	\$0
6	10/22/2016	\$27	10/16/16 12:00 AM	10/23/16 12:00 AM	7	10/19/16 12:00 PM	10/12/16 12:00 PM	-7.00	-\$191
7	10/29/2016	\$27	10/23/16 12:00 AM	10/30/16 12:00 AM	7	10/26/16 12:00 PM	10/12/16 12:00 PM	-14.00	-\$381
8	11/5/2016	\$27	10/30/16 12:00 AM	11/6/16 12:00 AM	7	11/2/16 12:00 PM	11/21/16 12:00 PM	19.00	\$517
9	11/12/2016	\$27	11/6/16 12:00 AM	11/13/16 12:00 AM	7	11/9/16 12:00 PM	11/21/16 12:00 PM	12.00	\$327
10	11/19/2016	\$27	11/13/16 12:00 AM	11/20/16 12:00 AM	7	11/16/16 12:00 PM	11/21/16 12:00 PM	5.00	\$136
11	11/26/2016	\$27	11/20/16 12:00 AM	11/27/16 12:00 AM	7	11/23/16 12:00 PM	11/21/16 12:00 PM	-2.00	-\$54
12	12/3/2016	\$27	11/27/16 12:00 AM	12/4/16 12:00 AM	7	11/30/16 12:00 PM	12/14/16 12:00 PM	14.00	\$381
13	12/10/2016	\$27	12/4/16 12:00 AM	12/11/16 12:00 AM	7	12/7/16 12:00 PM	12/14/16 12:00 PM	7.00	\$191
14	12/17/2016	\$27	12/11/16 12:00 AM	12/18/16 12:00 AM	7	12/14/16 12:00 PM	12/14/16 12:00 PM	0.00	\$0
15	12/24/2016	\$27	12/18/16 12:00 AM	12/25/16 12:00 AM	7	12/21/16 12:00 PM	12/14/16 12:00 PM	-7.00	-\$191
16	12/31/2016	\$27	12/25/16 12:00 AM	1/1/17 12:00 AM	7	12/28/16 12:00 PM	12/14/16 12:00 PM	-14.00	-\$381
17									
18		<u>\$381</u>						2.41	<u>\$920</u>
19									
20									
21	<u>Semi Monthly</u>								
22									
23	10/15/2016	\$8	10/1/16 12:00 AM	10/16/16 12:00 AM	15	10/8/16 12:00 PM	10/12/16 12:00 PM	4.00	\$30
24	10/31/2016	\$8	10/16/16 12:00 AM	11/1/16 12:00 AM	16	10/24/16 12:00 AM	10/12/16 12:00 PM	-11.50	-\$86
25	11/15/2016	\$8	11/1/16 12:00 AM	11/16/16 12:00 AM	15	11/8/16 12:00 PM	11/21/16 12:00 PM	13.00	\$98
26	11/30/2016	\$8	11/16/16 12:00 AM	12/1/16 12:00 AM	15	11/23/16 12:00 PM	11/21/16 12:00 PM	-2.00	-\$15
27	12/15/2016	\$8	12/1/16 12:00 AM	12/16/16 12:00 AM	15	12/8/16 12:00 PM	12/14/16 12:00 PM	6.00	\$45
28	12/31/2016	\$8	12/16/16 12:00 AM	1/1/17 12:00 AM	16	12/24/16 12:00 AM	12/14/16 12:00 PM	-9.50	-\$71
29									
30		<u>\$45</u>						0.00	<u>\$0</u>
31									
32									
33								2.16	<u>\$920</u>
34	Total Weighted Lag	<u>\$426</u>							

Payment date indicates the check date in Dataview.

Northern Utilities, Inc. - New Hampshire Division
Calculation of Payroll Lag Days
12 Months Ended Dec 31, 2016
Bonds

5/18/2017
11:48:26 AM

Line No	Payroll Description	Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Payment Date	(Lead) Lag Days	Weighted Dollar Days
			Start	End					
1	<u>Weekly</u>								
2									
3	10/1/2016	\$0	9/25/16 12:00 AM	10/2/16 12:00 AM	7	9/28/16 12:00 PM	1/0/00 12:00 AM		\$0
4	10/8/2016	\$0	10/2/16 12:00 AM	10/9/16 12:00 AM	7	10/5/16 12:00 PM	1/0/00 12:00 AM		\$0
5	10/15/2016	\$0	10/9/16 12:00 AM	10/16/16 12:00 AM	7	10/12/16 12:00 PM	1/0/00 12:00 AM		\$0
6	10/22/2016	\$0	10/16/16 12:00 AM	10/23/16 12:00 AM	7	10/19/16 12:00 PM	1/0/00 12:00 AM		\$0
7	10/29/2016	\$0	10/23/16 12:00 AM	10/30/16 12:00 AM	7	10/26/16 12:00 PM	1/0/00 12:00 AM		\$0
8	11/5/2016	\$0	10/30/16 12:00 AM	11/6/16 12:00 AM	7	11/2/16 12:00 PM	1/0/00 12:00 AM		\$0
9	11/12/2016	\$0	11/6/16 12:00 AM	11/13/16 12:00 AM	7	11/9/16 12:00 PM	1/0/00 12:00 AM		\$0
10	11/19/2016	\$0	11/13/16 12:00 AM	11/20/16 12:00 AM	7	11/16/16 12:00 PM	1/0/00 12:00 AM		\$0
11	11/26/2016	\$0	11/20/16 12:00 AM	11/27/16 12:00 AM	7	11/23/16 12:00 PM	1/0/00 12:00 AM		\$0
12	12/3/2016	\$0	11/27/16 12:00 AM	12/4/16 12:00 AM	7	11/30/16 12:00 PM	1/0/00 12:00 AM		\$0
13	12/10/2016	\$0	12/4/16 12:00 AM	12/11/16 12:00 AM	7	12/7/16 12:00 PM	1/0/00 12:00 AM		\$0
14	12/17/2016	\$0	12/11/16 12:00 AM	12/18/16 12:00 AM	7	12/14/16 12:00 PM	1/0/00 12:00 AM		\$0
15	12/24/2016	\$0	12/18/16 12:00 AM	12/25/16 12:00 AM	7	12/21/16 12:00 PM	1/0/00 12:00 AM		\$0
16	12/31/2016	\$0	12/25/16 12:00 AM	1/1/17 12:00 AM	7	12/28/16 12:00 PM	1/0/00 12:00 AM		\$0
17									
18		<u>\$0</u>						0.00	<u>\$0</u>
19									
20									
21	<u>Semi Monthly</u>								
22									
23	10/15/2016	\$0	10/1/16 12:00 AM	10/16/16 12:00 AM	15	10/8/16 12:00 PM	1/0/00 12:00 AM		\$0
24	10/31/2016	\$0	10/16/16 12:00 AM	11/1/16 12:00 AM	16	10/24/16 12:00 AM	1/0/00 12:00 AM		\$0
25	11/15/2016	\$0	11/1/16 12:00 AM	11/16/16 12:00 AM	15	11/8/16 12:00 PM	1/0/00 12:00 AM		\$0
26	11/30/2016	\$0	11/16/16 12:00 AM	12/1/16 12:00 AM	15	11/23/16 12:00 PM	1/0/00 12:00 AM		\$0
27	12/15/2016	\$0	12/1/16 12:00 AM	12/16/16 12:00 AM	15	12/8/16 12:00 PM	1/0/00 12:00 AM		\$0
28	12/31/2016	\$0	12/16/16 12:00 AM	1/1/17 12:00 AM	16	12/24/16 12:00 AM	1/0/00 12:00 AM		\$0
29									
30		<u>\$0</u>						0.00	<u>\$0</u>
31									
32									
33									
34									
35	Total	<u>\$0</u>							
36									
37									
38									
39									
40									
41									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Payroll Lag Days
12 Months Ended Dec 31, 2016
Stock Purchase

5/18/2017
11:48:26 AM

Line No	Payroll Description	Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Payment Date	(Lead) Lag Days	Weighted Dollar Days
			<u>Start</u>	<u>End</u>				<u>Days</u>	<u>Dollar Days</u>
1	<u>Weekly</u>								
2									
3	10/1/2016	\$75	9/25/16 12:00 AM	10/2/16 12:00 AM	7	9/28/16 12:00 PM	11/8/16 12:00 PM	41.00	\$3,075
4	10/8/2016	\$75	10/2/16 12:00 AM	10/9/16 12:00 AM	7	10/5/16 12:00 PM	11/8/16 12:00 PM	34.00	\$2,550
5	10/15/2016	\$75	10/9/16 12:00 AM	10/16/16 12:00 AM	7	10/12/16 12:00 PM	11/8/16 12:00 PM	27.00	\$2,025
6	10/22/2016	\$75	10/16/16 12:00 AM	10/23/16 12:00 AM	7	10/19/16 12:00 PM	11/8/16 12:00 PM	20.00	\$1,500
7	10/29/2016	\$75	10/23/16 12:00 AM	10/30/16 12:00 AM	7	10/26/16 12:00 PM	11/8/16 12:00 PM	13.00	\$975
8	11/5/2016	\$75	10/30/16 12:00 AM	11/6/16 12:00 AM	7	11/2/16 12:00 PM	2/24/17 12:00 PM	114.00	\$8,550
9	11/12/2016	\$75	11/6/16 12:00 AM	11/13/16 12:00 AM	7	11/9/16 12:00 PM	2/24/17 12:00 PM	107.00	\$8,025
10	11/19/2016	\$75	11/13/16 12:00 AM	11/20/16 12:00 AM	7	11/16/16 12:00 PM	2/24/17 12:00 PM	100.00	\$7,500
11	11/26/2016	\$75	11/20/16 12:00 AM	11/27/16 12:00 AM	7	11/23/16 12:00 PM	2/24/17 12:00 PM	93.00	\$6,975
12	12/3/2016	\$75	11/27/16 12:00 AM	12/4/16 12:00 AM	7	11/30/16 12:00 PM	2/24/17 12:00 PM	86.00	\$6,450
13	12/10/2016	\$75	12/4/16 12:00 AM	12/11/16 12:00 AM	7	12/7/16 12:00 PM	2/24/17 12:00 PM	79.00	\$5,925
14	12/17/2016	\$75	12/11/16 12:00 AM	12/18/16 12:00 AM	7	12/14/16 12:00 PM	2/24/17 12:00 PM	72.00	\$5,400
15	12/24/2016	\$75	12/18/16 12:00 AM	12/25/16 12:00 AM	7	12/21/16 12:00 PM	2/24/17 12:00 PM	65.00	\$4,875
16	12/31/2016	\$75	12/25/16 12:00 AM	1/1/17 12:00 AM	7	12/28/16 12:00 PM	2/24/17 12:00 PM	58.00	\$4,350
17									
18		<u>\$1,050</u>						64.93	<u>\$68,175</u>
19									
20									
21	<u>Semi Monthly</u>								
22									
23	10/15/2016	\$25	10/1/16 12:00 AM	10/16/16 12:00 AM	15	10/8/16 12:00 PM	11/8/16 12:00 PM	31.00	\$775
24	10/31/2016	\$25	10/16/16 12:00 AM	11/1/16 12:00 AM	16	10/24/16 12:00 AM	11/8/16 12:00 PM	15.50	\$388
25	11/15/2016	\$25	11/1/16 12:00 AM	11/16/16 12:00 AM	15	11/8/16 12:00 PM	2/24/17 12:00 PM	108.00	\$2,700
26	11/30/2016	\$25	11/16/16 12:00 AM	12/1/16 12:00 AM	15	11/23/16 12:00 PM	2/24/17 12:00 PM	93.00	\$2,325
27	12/15/2016	\$25	12/1/16 12:00 AM	12/16/16 12:00 AM	15	12/8/16 12:00 PM	2/24/17 12:00 PM	78.00	\$1,950
28	12/31/2016	\$25	12/16/16 12:00 AM	1/1/17 12:00 AM	16	12/24/16 12:00 AM	2/24/17 12:00 PM	62.50	\$1,563
29									
30		<u>\$150</u>						64.67	<u>\$9,700</u>
31									
32									
33									
34									
35	Total	<u>\$1,200</u>							
36									
37									
38									
39	Payment date indicates the check date in Dataview- Unitil Corporation - DRP purchases.								
40	Account Number - 30.00.00.00.232.18.00								
41									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Payroll Lag Days
12 Months Ended Dec 31, 2016
Charity

5/18/2017
11:48:26 AM

Line No	Payroll Description	Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Payment Date	(Lead) Lag Days	Weighted Dollar Days
			Start	End					
1	<u>Weekly</u>								
2									
3	10/1/2016	\$4	9/25/16 12:00 AM	10/2/16 12:00 AM	7	9/28/16 12:00 PM	10/22/16 12:00 PM	24.00	\$96
4	10/8/2016	\$4	10/2/16 12:00 AM	10/9/16 12:00 AM	7	10/5/16 12:00 PM	10/22/16 12:00 PM	17.00	\$68
5	10/15/2016	\$4	10/9/16 12:00 AM	10/16/16 12:00 AM	7	10/12/16 12:00 PM	10/22/16 12:00 PM	10.00	\$40
6	10/22/2016	\$4	10/16/16 12:00 AM	10/23/16 12:00 AM	7	10/19/16 12:00 PM	10/22/16 12:00 PM	3.00	\$12
7	10/29/2016	\$4	10/23/16 12:00 AM	10/30/16 12:00 AM	7	10/26/16 12:00 PM	10/22/16 12:00 PM	-4.00	-\$16
8	11/5/2016	\$4	10/30/16 12:00 AM	11/6/16 12:00 AM	7	11/2/16 12:00 PM	11/30/16 12:00 PM	28.00	\$112
9	11/12/2016	\$4	11/6/16 12:00 AM	11/13/16 12:00 AM	7	11/9/16 12:00 PM	11/30/16 12:00 PM	21.00	\$84
10	11/19/2016	\$4	11/13/16 12:00 AM	11/20/16 12:00 AM	7	11/16/16 12:00 PM	11/30/16 12:00 PM	14.00	\$56
11	11/26/2016	\$4	11/20/16 12:00 AM	11/27/16 12:00 AM	7	11/23/16 12:00 PM	11/30/16 12:00 PM	7.00	\$28
12	12/3/2016	\$4	11/27/16 12:00 AM	12/4/16 12:00 AM	7	11/30/16 12:00 PM	1/4/17 12:00 PM	35.00	\$140
13	12/10/2016	\$4	12/4/16 12:00 AM	12/11/16 12:00 AM	7	12/7/16 12:00 PM	1/4/17 12:00 PM	28.00	\$112
14	12/17/2016	\$4	12/11/16 12:00 AM	12/18/16 12:00 AM	7	12/14/16 12:00 PM	1/4/17 12:00 PM	21.00	\$84
15	12/24/2016	\$4	12/18/16 12:00 AM	12/25/16 12:00 AM	7	12/21/16 12:00 PM	1/4/17 12:00 PM	14.00	\$56
16	12/31/2016	\$4	12/25/16 12:00 AM	1/1/17 12:00 AM	7	12/28/16 12:00 PM	1/4/17 12:00 PM	7.00	\$28
17									
18		<u>\$56</u>						16.07	<u>\$900</u>
19									
20									
21	<u>Semi Monthly</u>								
22									
23	10/15/2016	\$56	10/1/16 12:00 AM	10/16/16 12:00 AM	15	10/8/16 12:00 PM	10/22/16 12:00 PM	14.00	\$784
24	10/31/2016	\$56	10/16/16 12:00 AM	11/1/16 12:00 AM	16	10/24/16 12:00 AM	10/22/16 12:00 PM	-1.50	-\$84
25	11/15/2016	\$56	11/1/16 12:00 AM	11/16/16 12:00 AM	15	11/8/16 12:00 PM	11/30/16 12:00 PM	22.00	\$1,232
26	11/30/2016	\$56	11/16/16 12:00 AM	12/1/16 12:00 AM	15	11/23/16 12:00 PM	11/30/16 12:00 PM	7.00	\$392
27	12/15/2016	\$56	12/1/16 12:00 AM	12/16/16 12:00 AM	15	12/8/16 12:00 PM	1/4/17 12:00 PM	27.00	\$1,512
28	12/31/2016	\$56	12/16/16 12:00 AM	1/1/17 12:00 AM	16	12/24/16 12:00 AM	1/4/17 12:00 PM	11.50	\$644
29									
30		<u>\$336</u>						13.33	<u>\$4,480</u>
31									
32									
33									
34									
35	Total	<u>\$392</u>							
36									
37									
38									
39									
40									
41									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Payroll Lag Days
12 Months Ended Dec 31, 2016
Auto Adjustment

5/18/2017
11:48:26 AM

Line No	Payroll Description	Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Payment Date	(Lead) Lag Days	Weighted Dollar Days
			Start	End					
1	<u>Weekly</u>								
2									
3	10/1/2016	\$0	9/25/16 12:00 AM	10/2/16 12:00 AM	7	9/28/16 12:00 PM			\$0
4	10/8/2016	\$0	10/2/16 12:00 AM	10/9/16 12:00 AM	7	10/5/16 12:00 PM			\$0
5	10/15/2016	\$0	10/9/16 12:00 AM	10/16/16 12:00 AM	7	10/12/16 12:00 PM			\$0
6	10/22/2016	\$0	10/16/16 12:00 AM	10/23/16 12:00 AM	7	10/19/16 12:00 PM			\$0
7	10/29/2016	\$0	10/23/16 12:00 AM	10/30/16 12:00 AM	7	10/26/16 12:00 PM			\$0
8	11/5/2016	\$0	10/30/16 12:00 AM	11/6/16 12:00 AM	7	11/2/16 12:00 PM			\$0
9	11/12/2016	\$0	11/6/16 12:00 AM	11/13/16 12:00 AM	7	11/9/16 12:00 PM			\$0
10	11/19/2016	\$0	11/13/16 12:00 AM	11/20/16 12:00 AM	7	11/16/16 12:00 PM			\$0
11	11/26/2016	\$0	11/20/16 12:00 AM	11/27/16 12:00 AM	7	11/23/16 12:00 PM			\$0
12	12/3/2016	\$0	11/27/16 12:00 AM	12/4/16 12:00 AM	7	11/30/16 12:00 PM			\$0
13	12/10/2016	\$2,589	11/1/15 12:00 AM	11/1/16 12:00 AM	366	5/2/16 12:00 AM	12/14/16 12:00 PM	226.50	\$586,409
14	12/17/2016	\$2,598	11/1/15 12:00 AM	11/1/16 12:00 AM	366	5/2/16 12:00 AM	12/20/16 12:00 PM	232.50	\$604,035
15	12/24/2016	\$0	12/18/16 12:00 AM	12/25/16 12:00 AM	7	12/21/16 12:00 PM			\$0
16	12/31/2016	\$0	12/25/16 12:00 AM	1/1/17 12:00 AM	7	12/28/16 12:00 PM			\$0
17									
18		<u>\$5,187</u>						229.51	<u>\$1,190,444</u>
19									
20									
21	<u>Semi Monthly</u>								
22									
23	10/15/2016	\$0	10/1/16 12:00 AM	10/16/16 12:00 AM	15	10/8/16 12:00 PM			\$0
24	10/31/2016	\$0	10/16/16 12:00 AM	11/1/16 12:00 AM	16	10/24/16 12:00 AM			\$0
25	11/15/2016	\$0	11/1/16 12:00 AM	11/16/16 12:00 AM	15	11/8/16 12:00 PM			\$0
26	11/30/2016	\$9,048	11/1/15 12:00 AM	11/1/16 12:00 AM	366	5/2/16 12:00 AM	11/21/16 12:00 PM	203.50	\$1,841,351
27	12/15/2016	\$6,224	11/1/15 12:00 AM	11/1/16 12:00 AM	366	5/2/16 12:00 AM	12/7/16 12:00 PM	219.50	\$1,366,236
28	12/31/2016	\$0	12/16/16 12:00 AM	1/1/17 12:00 AM	16	12/24/16 12:00 AM			\$0
29									
30		<u>\$15,273</u>						287.97	<u>\$4,398,031</u>
31									
32									
33									
34									
35	Total	<u>\$20,460</u>							
36									
37									

The Auto amount represents the imputed value for the personal use of a company care that is added to the employees gross wages on their W-2.
Employee is responsible for taxes. Earnings is grossed up.
Amount is added to earnings and deductions. Plan year is from November through October

Northern Utilities, Inc. - New Hampshire Division
Calculation of Payroll Lag Days
12 Months Ended Dec 31, 2016
PC Purchase Loan

5/18/2017
11:48:26 AM

Line No	Payroll Description	Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Payment Date	(Lead) Lag Days	Weighted Dollar Days
			Start	End					
1	<u>Weekly</u>								
2									
3	10/1/2016	\$70	9/25/16 12:00 AM	10/2/16 12:00 AM	7	9/28/16 12:00 PM		-334.58	-\$23,558
4	10/8/2016	\$70	10/2/16 12:00 AM	10/9/16 12:00 AM	7	10/5/16 12:00 PM		-334.58	-\$23,558
5	10/15/2016	\$70	10/9/16 12:00 AM	10/16/16 12:00 AM	7	10/12/16 12:00 PM		-334.58	-\$23,558
6	10/22/2016	\$70	10/16/16 12:00 AM	10/23/16 12:00 AM	7	10/19/16 12:00 PM		-334.58	-\$23,558
7	10/29/2016	\$70	10/23/16 12:00 AM	10/30/16 12:00 AM	7	10/26/16 12:00 PM		-334.58	-\$23,558
8	11/5/2016	\$70	10/30/16 12:00 AM	11/6/16 12:00 AM	7	11/2/16 12:00 PM		-334.58	-\$23,558
9	11/12/2016	\$70	11/6/16 12:00 AM	11/13/16 12:00 AM	7	11/9/16 12:00 PM		-334.58	-\$23,558
10	11/19/2016	\$70	11/13/16 12:00 AM	11/20/16 12:00 AM	7	11/16/16 12:00 PM		-334.58	-\$23,558
11	11/26/2016	\$70	11/20/16 12:00 AM	11/27/16 12:00 AM	7	11/23/16 12:00 PM		-334.58	-\$23,558
12	12/3/2016	\$70	11/27/16 12:00 AM	12/4/16 12:00 AM	7	11/30/16 12:00 PM		-334.58	-\$23,558
13	12/10/2016	\$70	12/4/16 12:00 AM	12/11/16 12:00 AM	7	12/7/16 12:00 PM		-334.58	-\$23,558
14	12/17/2016	\$70	12/11/16 12:00 AM	12/18/16 12:00 AM	7	12/14/16 12:00 PM		-334.58	-\$23,484
15	12/24/2016	\$50	12/18/16 12:00 AM	12/25/16 12:00 AM	7	12/21/16 12:00 PM		-334.58	-\$16,702
16	12/31/2016	\$50	12/25/16 12:00 AM	1/1/17 12:00 AM	7	12/28/16 12:00 PM		-334.58	-\$16,702
17									
18		<u>\$945</u>						-334.58	<u>-\$316,027</u>
19									
20									
21	<u>Semi Monthly</u>								
22									
23	10/15/2016	\$15	10/1/16 12:00 AM	10/16/16 12:00 AM	15	10/8/16 12:00 PM		-334.58	-\$5,159
24	10/31/2016	\$15	10/16/16 12:00 AM	11/1/16 12:00 AM	16	10/24/16 12:00 AM		-334.58	-\$5,159
25	11/15/2016	\$15	11/1/16 12:00 AM	11/16/16 12:00 AM	15	11/8/16 12:00 PM		-334.58	-\$5,159
26	11/30/2016	\$15	11/16/16 12:00 AM	12/1/16 12:00 AM	15	11/23/16 12:00 PM		-334.58	-\$5,159
27	12/15/2016	\$15	12/1/16 12:00 AM	12/16/16 12:00 AM	15	12/8/16 12:00 PM		-334.58	-\$5,159
28	12/31/2016	\$15	12/16/16 12:00 AM	1/1/17 12:00 AM	16	12/24/16 12:00 AM		-334.58	-\$5,159
29									
30		<u>\$93</u>						-334.58	<u>-\$30,956</u>
31									
32									
33									
34									
35	Total	<u>\$1,037</u>							
36									
37									
38	Average Length of Loan is 22.0 Months.								
39									
40									
41									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Payroll Lag Days
12 Months Ended Dec 31, 2016
Activity Prizes

5/18/2017
11:48:26 AM

Line No	Payroll Description	Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Payment Date	(Lead) Lag Days	Weighted Dollar Days
			Start	End					
1	<u>Weekly</u>								
2									
3	10/1/2016	\$0	9/25/16 12:00 AM	10/2/16 12:00 AM	7	9/28/16 12:00 PM			\$0
4	10/8/2016	\$0	10/2/16 12:00 AM	10/9/16 12:00 AM	7	10/5/16 12:00 PM			\$0
5	10/15/2016	\$0	10/9/16 12:00 AM	10/16/16 12:00 AM	7	10/12/16 12:00 PM			\$0
6	10/22/2016	\$0	10/16/16 12:00 AM	10/23/16 12:00 AM	7	10/19/16 12:00 PM			\$0
7	10/29/2016	\$0	10/23/16 12:00 AM	10/30/16 12:00 AM	7	10/26/16 12:00 PM			\$0
8	11/5/2016	\$0	10/30/16 12:00 AM	11/6/16 12:00 AM	7	11/2/16 12:00 PM			\$0
9	11/12/2016	\$0	11/6/16 12:00 AM	11/13/16 12:00 AM	7	11/9/16 12:00 PM			\$0
10	11/19/2016	\$0	11/13/16 12:00 AM	11/20/16 12:00 AM	7	11/16/16 12:00 PM			\$0
11	11/26/2016	\$0	11/20/16 12:00 AM	11/27/16 12:00 AM	7	11/23/16 12:00 PM			\$0
12	12/3/2016	\$0	11/27/16 12:00 AM	12/4/16 12:00 AM	7	11/30/16 12:00 PM			\$0
13	12/10/2016	\$0	12/4/16 12:00 AM	12/11/16 12:00 AM	7	12/7/16 12:00 PM			\$0
14	12/17/2016	\$944	12/11/16 12:00 AM	12/18/16 12:00 AM	7	12/14/16 12:00 PM	12/14/16 12:00 PM	0.00	\$0
15	12/24/2016	\$0	12/18/16 12:00 AM	12/25/16 12:00 AM	7	12/21/16 12:00 PM			\$0
16	12/31/2016	\$0	12/25/16 12:00 AM	1/1/17 12:00 AM	7	12/28/16 12:00 PM			\$0
17									
18		<u>\$944</u>						0.00	<u>\$0</u>
19									
20									
21	<u>Semi Monthly</u>								
22									
23	10/15/2016	\$0	10/1/16 12:00 AM	10/16/16 12:00 AM	15	10/8/16 12:00 PM			\$0
24	10/31/2016	\$0	10/16/16 12:00 AM	11/1/16 12:00 AM	16	10/24/16 12:00 AM			\$0
25	11/15/2016	\$0	11/1/16 12:00 AM	11/16/16 12:00 AM	15	11/8/16 12:00 PM			\$0
26	11/30/2016	\$0	11/16/16 12:00 AM	12/1/16 12:00 AM	15	11/23/16 12:00 PM			\$0
27	12/15/2016	\$0	12/1/16 12:00 AM	12/16/16 12:00 AM	15	12/8/16 12:00 PM			\$0
28	12/31/2016	\$0	12/16/16 12:00 AM	1/1/17 12:00 AM	16	12/24/16 12:00 AM			\$0
29									
30		<u>\$0</u>						0.00	<u>\$0</u>
31									
32									
33									
34									
35	Total	<u>\$944</u>							
36									
37	Gross pay and the deduction are grossed up for the amount of the prizes. Prizes given during Service period. Use midpoint of service period for payment date.								
38	Weekly:								
39									
40	Semi-Monthly:								
41	Holiday Prizes								

Northern Utilities, Inc. - New Hampshire Division
Calculation of Payroll Lag Days
12 Months Ended Dec 31, 2016
Award

5/18/2017
11:48:26 AM

Line No	Payroll Description	Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Payment Date	(Lead) Lag Days	Weighted Dollar Days
			Start	End					
1	<u>Weekly</u>								
2									
3	10/1/2016	\$0	9/25/16 12:00 AM	10/2/16 12:00 AM	7	9/28/16 12:00 PM	1/0/00 12:00 AM		\$0
4	10/8/2016	\$0	10/2/16 12:00 AM	10/9/16 12:00 AM	7	10/5/16 12:00 PM	1/0/00 12:00 AM		\$0
5	10/15/2016	\$0	10/9/16 12:00 AM	10/16/16 12:00 AM	7	10/12/16 12:00 PM	1/0/00 12:00 AM		\$0
6	10/22/2016	\$0	10/16/16 12:00 AM	10/23/16 12:00 AM	7	10/19/16 12:00 PM	1/0/00 12:00 AM		\$0
7	10/29/2016	\$0	10/23/16 12:00 AM	10/30/16 12:00 AM	7	10/26/16 12:00 PM	1/0/00 12:00 AM		\$0
8	11/5/2016	\$0	10/30/16 12:00 AM	11/6/16 12:00 AM	7	11/2/16 12:00 PM	1/0/00 12:00 AM		\$0
9	11/12/2016	\$0	11/6/16 12:00 AM	11/13/16 12:00 AM	7	11/9/16 12:00 PM	1/0/00 12:00 AM		\$0
10	11/19/2016	\$0	11/13/16 12:00 AM	11/20/16 12:00 AM	7	11/16/16 12:00 PM	1/0/00 12:00 AM		\$0
11	11/26/2016	\$0	11/20/16 12:00 AM	11/27/16 12:00 AM	7	11/23/16 12:00 PM	1/0/00 12:00 AM		\$0
12	12/3/2016	\$0	11/27/16 12:00 AM	12/4/16 12:00 AM	7	11/30/16 12:00 PM	1/0/00 12:00 AM		\$0
13	12/10/2016	\$0	12/4/16 12:00 AM	12/11/16 12:00 AM	7	12/7/16 12:00 PM	1/0/00 12:00 AM		\$0
14	12/17/2016	\$0	12/11/16 12:00 AM	12/18/16 12:00 AM	7	12/14/16 12:00 PM	1/0/00 12:00 AM		\$0
15	12/24/2016	\$0	12/18/16 12:00 AM	12/25/16 12:00 AM	7	12/21/16 12:00 PM	1/0/00 12:00 AM		\$0
16	12/31/2016	\$0	12/25/16 12:00 AM	1/1/17 12:00 AM	7	12/28/16 12:00 PM	1/0/00 12:00 AM		\$0
17									
18		<u>\$0</u>						0.00	<u>\$0</u>
19									
20									
21	<u>Semi Monthly</u>								
22									
23	10/15/2016	\$0	9/1/09 12:00 AM	9/1/10 12:00 AM	365	3/2/10 12:00 PM	1/0/00 12:00 AM		\$0
24	10/31/2016	\$0	10/16/16 12:00 AM	11/1/16 12:00 AM	16	10/24/16 12:00 AM	1/0/00 12:00 AM		\$0
25	11/15/2016	\$0	11/1/16 12:00 AM	11/16/16 12:00 AM	15	11/8/16 12:00 PM	1/0/00 12:00 AM		\$0
26	11/30/2016	\$0	11/16/16 12:00 AM	12/1/16 12:00 AM	15	11/23/16 12:00 PM	1/0/00 12:00 AM		\$0
27	12/15/2016	\$0	12/1/16 12:00 AM	12/16/16 12:00 AM	15	12/8/16 12:00 PM	1/0/00 12:00 AM		\$0
28	12/31/2016	\$0	12/16/16 12:00 AM	1/1/17 12:00 AM	16	12/24/16 12:00 AM	1/0/00 12:00 AM		\$0
29									
30		<u>\$0</u>						0.00	<u>\$0</u>
31									
32									
33									
34									
35	Total	<u>\$0</u>							

Five Year Service Awards. Lags are based on 5 year service period.

Exceptional EE Awards are given out Quarterly during the year. Added to payroll at the end of the year. Lag based on the midpoint of the quarter.

Northern Utilities, Inc. - New Hampshire Division
Calculation of Payroll Lag Days
12 Months Ended Dec 31, 2016
Miscellaneous

5/18/2017
11:48:26 AM

Line No	Payroll Description	Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Payment Date	(Lead) Lag Days	Weighted Dollar Days
			Start	End					
1	<u>Weekly</u>								
2									
3	10/1/2016	\$0	9/25/16 12:00 AM	10/2/16 12:00 AM	7	9/28/16 12:00 PM			\$0
4	10/8/2016	\$0	10/2/16 12:00 AM	10/9/16 12:00 AM	7	10/5/16 12:00 PM			\$0
5	10/15/2016	\$0	10/9/16 12:00 AM	10/16/16 12:00 AM	7	10/12/16 12:00 PM			\$0
6	10/22/2016	-\$804	10/16/16 12:00 AM	10/23/16 12:00 AM	7	10/19/16 12:00 PM	10/26/16 12:00 PM	7.00	-\$5,628
7	10/29/2016	\$0	10/23/16 12:00 AM	10/30/16 12:00 AM	7	10/26/16 12:00 PM			\$0
8	11/5/2016	\$0	10/30/16 12:00 AM	11/6/16 12:00 AM	7	11/2/16 12:00 PM			\$0
9	11/12/2016	\$0	11/6/16 12:00 AM	11/13/16 12:00 AM	7	11/9/16 12:00 PM			\$0
10	11/19/2016	\$0	11/13/16 12:00 AM	11/20/16 12:00 AM	7	11/16/16 12:00 PM			\$0
11	11/26/2016	\$0	11/20/16 12:00 AM	11/27/16 12:00 AM	7	11/23/16 12:00 PM			\$0
12	12/3/2016	\$0	11/27/16 12:00 AM	12/4/16 12:00 AM	7	11/30/16 12:00 PM			\$0
13	12/10/2016	\$0	12/4/16 12:00 AM	12/11/16 12:00 AM	7	12/7/16 12:00 PM			\$0
14	12/17/2016	\$0	12/11/16 12:00 AM	12/18/16 12:00 AM	7	12/14/16 12:00 PM			\$0
15	12/24/2016	\$0	12/18/16 12:00 AM	12/25/16 12:00 AM	7	12/21/16 12:00 PM			\$0
16	12/31/2016	\$0	12/25/16 12:00 AM	1/1/17 12:00 AM	7	12/28/16 12:00 PM			\$0
17									
18		<u>-\$804</u>						7.00	<u>-\$5,628</u>
19									
20									
21	<u>Semi Monthly</u>								
22									
23	10/15/2016	\$0	10/1/16 12:00 AM	10/16/16 12:00 AM	15	10/8/16 12:00 PM			\$0
24	10/31/2016	\$0	10/16/16 12:00 AM	11/1/16 12:00 AM	16	10/24/16 12:00 AM			\$0
25	11/15/2016	\$0	11/1/16 12:00 AM	11/16/16 12:00 AM	15	11/8/16 12:00 PM			\$0
26	11/30/2016	\$0	11/16/16 12:00 AM	12/1/16 12:00 AM	15	11/23/16 12:00 PM			\$0
27	12/15/2016	\$0	12/1/16 12:00 AM	12/16/16 12:00 AM	15	12/8/16 12:00 PM			\$0
28	12/31/2016	\$0	12/16/16 12:00 AM	1/1/17 12:00 AM	16	12/24/16 12:00 AM			\$0
29									
30		<u>\$0</u>						0.00	<u>\$0</u>
31									
32									
33									
34									
35	Total	<u>-\$804</u>							
36									
37									

This was a reissued net payroll check for a stop-payment - Misc category selected by HR.

Northern Utilities, Inc. - New Hampshire Division
Calculation of Payroll Lag Days
12 Months Ended Dec 31, 2016
Union Dues

5/18/2017
11:48:26 AM

Line No	Payroll Description	Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Payment Date	(Lead) Lag Days	Weighted Dollar Days
			Start	End					
1	<u>Weekly</u>								
2									
3	10/1/2016	\$655	9/25/16 12:00 AM	10/2/16 12:00 AM	7	9/28/16 12:00 PM	10/6/16 12:00 PM	8.00	\$5,244
4	10/8/2016	\$634	10/2/16 12:00 AM	10/9/16 12:00 AM	7	10/5/16 12:00 PM	10/13/16 12:00 PM	8.00	\$5,070
5	10/15/2016	\$677	10/9/16 12:00 AM	10/16/16 12:00 AM	7	10/12/16 12:00 PM	10/20/16 12:00 PM	8.00	\$5,418
6	10/22/2016	\$655	10/16/16 12:00 AM	10/23/16 12:00 AM	7	10/19/16 12:00 PM	10/27/16 12:00 PM	8.00	\$5,244
7	10/29/2016	\$655	10/23/16 12:00 AM	10/30/16 12:00 AM	7	10/26/16 12:00 PM	11/3/16 12:00 PM	8.00	\$5,244
8	11/5/2016	\$655	10/30/16 12:00 AM	11/6/16 12:00 AM	7	11/2/16 12:00 PM	11/10/16 12:00 PM	8.00	\$5,244
9	11/12/2016	\$655	11/6/16 12:00 AM	11/13/16 12:00 AM	7	11/9/16 12:00 PM	11/17/16 12:00 PM	8.00	\$5,244
10	11/19/2016	\$655	11/13/16 12:00 AM	11/20/16 12:00 AM	7	11/16/16 12:00 PM	11/23/16 12:00 PM	7.00	\$4,588
11	11/26/2016	\$655	11/20/16 12:00 AM	11/27/16 12:00 AM	7	11/23/16 12:00 PM	12/1/16 12:00 PM	8.00	\$5,244
12	12/3/2016	\$655	11/27/16 12:00 AM	12/4/16 12:00 AM	7	11/30/16 12:00 PM	12/8/16 12:00 PM	8.00	\$5,244
13	12/10/2016	\$655	12/4/16 12:00 AM	12/11/16 12:00 AM	7	12/7/16 12:00 PM	12/15/16 12:00 PM	8.00	\$5,244
14	12/17/2016	\$658	12/11/16 12:00 AM	12/18/16 12:00 AM	7	12/14/16 12:00 PM	12/22/16 12:00 PM	8.00	\$5,261
15	12/24/2016	\$658	12/18/16 12:00 AM	12/25/16 12:00 AM	7	12/21/16 12:00 PM	12/29/16 12:00 PM	8.00	\$5,261
16	12/31/2016	\$658	12/25/16 12:00 AM	1/1/17 12:00 AM	7	12/28/16 12:00 PM	1/5/17 12:00 PM	8.00	\$5,261
17									
18		<u>\$9,183</u>						7.93	<u>\$72,808</u>
19									
20									
21	<u>Semi Monthly</u>								
22									
23	10/15/2016	\$0	10/1/16 12:00 AM	10/16/16 12:00 AM	15	10/8/16 12:00 PM			\$0
24	10/31/2016	\$0	10/16/16 12:00 AM	11/1/16 12:00 AM	16	10/24/16 12:00 AM			\$0
25	11/15/2016	\$0	11/1/16 12:00 AM	11/16/16 12:00 AM	15	11/8/16 12:00 PM			\$0
26	11/30/2016	\$0	11/16/16 12:00 AM	12/1/16 12:00 AM	15	11/23/16 12:00 PM			\$0
27	12/15/2016	\$0	12/1/16 12:00 AM	12/16/16 12:00 AM	15	12/8/16 12:00 PM			\$0
28	12/31/2016	\$0	12/16/16 12:00 AM	1/1/17 12:00 AM	16	12/24/16 12:00 AM			\$0
29									
30		<u>\$0</u>						0.00	<u>\$0</u>
31									
32									
33									
34									
35	Total	<u>\$9,183</u>							
36									
37									
38									
39	Payment date indicates the check date in Dataview.								
40									
41									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Payroll Lag Days
12 Months Ended Dec 31, 2016
Medical Care Account

5/18/2017
11:48:26 AM

Line No	Payroll Description	Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Payment Date	(Lead) Lag Days	Weighted Dollar Days
			Start	End					
1	<u>Weekly</u>								
2									
3	10/1/2016	\$75	9/25/16 12:00 AM	10/2/16 12:00 AM	7	9/28/16 12:00 PM	10/5/16 12:00 PM	7.00	\$525
4	10/8/2016	\$75	10/2/16 12:00 AM	10/9/16 12:00 AM	7	10/5/16 12:00 PM	10/12/16 12:00 PM	7.00	\$525
5	10/15/2016	\$75	10/9/16 12:00 AM	10/16/16 12:00 AM	7	10/12/16 12:00 PM	10/19/16 12:00 PM	7.00	\$525
6	10/22/2016	\$75	10/16/16 12:00 AM	10/23/16 12:00 AM	7	10/19/16 12:00 PM	10/26/16 12:00 PM	7.00	\$525
7	10/29/2016	\$75	10/23/16 12:00 AM	10/30/16 12:00 AM	7	10/26/16 12:00 PM	11/2/16 12:00 PM	7.00	\$525
8	11/5/2016	\$75	10/30/16 12:00 AM	11/6/16 12:00 AM	7	11/2/16 12:00 PM	11/9/16 12:00 PM	7.00	\$525
9	11/12/2016	\$75	11/6/16 12:00 AM	11/13/16 12:00 AM	7	11/9/16 12:00 PM	11/16/16 12:00 PM	7.00	\$525
10	11/19/2016	\$75	11/13/16 12:00 AM	11/20/16 12:00 AM	7	11/16/16 12:00 PM	11/23/16 12:00 PM	7.00	\$525
11	11/26/2016	\$75	11/20/16 12:00 AM	11/27/16 12:00 AM	7	11/23/16 12:00 PM	11/30/16 12:00 PM	7.00	\$525
12	12/3/2016	\$75	11/27/16 12:00 AM	12/4/16 12:00 AM	7	11/30/16 12:00 PM	12/7/16 12:00 PM	7.00	\$525
13	12/10/2016	\$75	12/4/16 12:00 AM	12/11/16 12:00 AM	7	12/7/16 12:00 PM	12/14/16 12:00 PM	7.00	\$525
14	12/17/2016	\$75	12/11/16 12:00 AM	12/18/16 12:00 AM	7	12/14/16 12:00 PM	12/21/16 12:00 PM	7.00	\$525
15	12/24/2016	\$75	12/18/16 12:00 AM	12/25/16 12:00 AM	7	12/21/16 12:00 PM	12/29/16 12:00 PM	8.00	\$600
16	12/31/2016	\$25	12/25/16 12:00 AM	1/1/17 12:00 AM	7	12/28/16 12:00 PM	1/5/17 12:00 PM	8.00	\$200
17									
18		<u>\$1,000</u>						7.10	<u>\$7,100</u>
19									
20									
21	<u>Semi Monthly</u>								
22									
23	10/15/2016	\$106	10/1/16 12:00 AM	10/16/16 12:00 AM	15	10/8/16 12:00 PM	10/19/16 12:00 PM	11.00	\$1,169
24	10/31/2016	\$106	10/16/16 12:00 AM	11/1/16 12:00 AM	16	10/24/16 12:00 AM	11/9/16 12:00 PM	16.50	\$1,753
25	11/15/2016	\$106	11/1/16 12:00 AM	11/16/16 12:00 AM	15	11/8/16 12:00 PM	11/16/16 12:00 PM	8.00	\$850
26	11/30/2016	\$106	11/16/16 12:00 AM	12/1/16 12:00 AM	15	11/23/16 12:00 PM	12/7/16 12:00 PM	14.00	\$1,488
27	12/15/2016	\$106	12/1/16 12:00 AM	12/16/16 12:00 AM	15	12/8/16 12:00 PM	12/21/16 12:00 PM	13.00	\$1,381
28	12/31/2016	\$106	12/16/16 12:00 AM	1/1/17 12:00 AM	16	12/24/16 12:00 AM	1/5/17 12:00 PM	12.50	\$1,328
29									
30		<u>\$638</u>						12.50	<u>\$7,969</u>
31									
32									
33									
34									
35	Total	<u>\$1,638</u>							
36									
37									
38									
39	Payment date indicates the check date in Dataview								
40									
41									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Payroll Lag Days
12 Months Ended Dec 31, 2016
Dependent Care

5/18/2017
11:48:26 AM

Line No	Payroll Description	Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Payment Date	(Lead) Lag Days	Weighted Dollar Days
			Start	End					
1	<u>Weekly</u>								
2									
3	10/1/2016	\$0	9/25/16 12:00 AM	10/2/16 12:00 AM	7	9/28/16 12:00 PM	1/0/00 12:00 AM		\$0
4	10/8/2016	\$0	10/2/16 12:00 AM	10/9/16 12:00 AM	7	10/5/16 12:00 PM	1/0/00 12:00 AM		\$0
5	10/15/2016	\$0	10/9/16 12:00 AM	10/16/16 12:00 AM	7	10/12/16 12:00 PM	1/0/00 12:00 AM		\$0
6	10/22/2016	\$0	10/16/16 12:00 AM	10/23/16 12:00 AM	7	10/19/16 12:00 PM	1/0/00 12:00 AM		\$0
7	10/29/2016	\$0	10/23/16 12:00 AM	10/30/16 12:00 AM	7	10/26/16 12:00 PM	1/0/00 12:00 AM		\$0
8	11/5/2016	\$0	10/30/16 12:00 AM	11/6/16 12:00 AM	7	11/2/16 12:00 PM	1/0/00 12:00 AM		\$0
9	11/12/2016	\$0	11/6/16 12:00 AM	11/13/16 12:00 AM	7	11/9/16 12:00 PM	1/0/00 12:00 AM		\$0
10	11/19/2016	\$0	11/13/16 12:00 AM	11/20/16 12:00 AM	7	11/16/16 12:00 PM	1/0/00 12:00 AM		\$0
11	11/26/2016	\$0	11/20/16 12:00 AM	11/27/16 12:00 AM	7	11/23/16 12:00 PM	1/0/00 12:00 AM		\$0
12	12/3/2016	\$0	11/27/16 12:00 AM	12/4/16 12:00 AM	7	11/30/16 12:00 PM	1/0/00 12:00 AM		\$0
13	12/10/2016	\$0	12/4/16 12:00 AM	12/11/16 12:00 AM	7	12/7/16 12:00 PM	1/0/00 12:00 AM		\$0
14	12/17/2016	\$0	12/11/16 12:00 AM	12/18/16 12:00 AM	7	12/14/16 12:00 PM	1/0/00 12:00 AM		\$0
15	12/24/2016	\$0	12/18/16 12:00 AM	12/25/16 12:00 AM	7	12/21/16 12:00 PM	1/0/00 12:00 AM		\$0
16	12/31/2016	\$0	12/25/16 12:00 AM	1/1/17 12:00 AM	7	12/28/16 12:00 PM	1/0/00 12:00 AM		\$0
17									
18		<u>\$0</u>						0.00	<u>\$0</u>
19									
20									
21	<u>Semi Monthly</u>								
22									
23	10/15/2016	\$0	10/1/16 12:00 AM	10/16/16 12:00 AM	15	10/8/16 12:00 PM	1/0/00 12:00 AM		\$0
24	10/31/2016	\$0	10/16/16 12:00 AM	11/1/16 12:00 AM	16	10/24/16 12:00 AM	1/0/00 12:00 AM		\$0
25	11/15/2016	\$0	11/1/16 12:00 AM	11/16/16 12:00 AM	15	11/8/16 12:00 PM	1/0/00 12:00 AM		\$0
26	11/30/2016	\$0	11/16/16 12:00 AM	12/1/16 12:00 AM	15	11/23/16 12:00 PM	1/0/00 12:00 AM		\$0
27	12/15/2016	\$0	12/1/16 12:00 AM	12/16/16 12:00 AM	15	12/8/16 12:00 PM	1/0/00 12:00 AM		\$0
28	12/31/2016	\$0	12/16/16 12:00 AM	1/1/17 12:00 AM	16	12/24/16 12:00 AM	1/0/00 12:00 AM		\$0
29									
30		<u>\$0</u>						0.00	<u>\$0</u>
31									
32									
33									
34									
35	Total	<u>\$0</u>							
36									
37									
38									
39									
40									
41									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Payroll Lag Days
12 Months Ended Dec 31, 2016
Edadn

5/18/2017
11:48:26 AM

Line No	Payroll Description	Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Payment Date	(Lead) Lag Days	Weighted Dollar Days
			Start	End					
1	<u>Weekly</u>								
2									
3	10/1/2016	\$0	9/25/16 12:00 AM	10/2/16 12:00 AM	7	9/28/16 12:00 PM	1/0/00 12:00 AM		\$0
4	10/8/2016	\$0	10/2/16 12:00 AM	10/9/16 12:00 AM	7	10/5/16 12:00 PM	1/0/00 12:00 AM		\$0
5	10/15/2016	\$0	10/9/16 12:00 AM	10/16/16 12:00 AM	7	10/12/16 12:00 PM	1/0/00 12:00 AM		\$0
6	10/22/2016	\$0	10/16/16 12:00 AM	10/23/16 12:00 AM	7	10/19/16 12:00 PM	1/0/00 12:00 AM		\$0
7	10/29/2016	\$0	10/23/16 12:00 AM	10/30/16 12:00 AM	7	10/26/16 12:00 PM	1/0/00 12:00 AM		\$0
8	11/5/2016	\$0	10/30/16 12:00 AM	11/6/16 12:00 AM	7	11/2/16 12:00 PM	1/0/00 12:00 AM		\$0
9	11/12/2016	\$0	11/6/16 12:00 AM	11/13/16 12:00 AM	7	11/9/16 12:00 PM	1/0/00 12:00 AM		\$0
10	11/19/2016	\$0	11/13/16 12:00 AM	11/20/16 12:00 AM	7	11/16/16 12:00 PM	1/0/00 12:00 AM		\$0
11	11/26/2016	\$0	11/20/16 12:00 AM	11/27/16 12:00 AM	7	11/23/16 12:00 PM	1/0/00 12:00 AM		\$0
12	12/3/2016	\$0	11/27/16 12:00 AM	12/4/16 12:00 AM	7	11/30/16 12:00 PM	1/0/00 12:00 AM		\$0
13	12/10/2016	\$0	12/4/16 12:00 AM	12/11/16 12:00 AM	7	12/7/16 12:00 PM	1/0/00 12:00 AM		\$0
14	12/17/2016	\$0	12/11/16 12:00 AM	12/18/16 12:00 AM	7	12/14/16 12:00 PM	1/0/00 12:00 AM		\$0
15	12/24/2016	\$0	12/18/16 12:00 AM	12/25/16 12:00 AM	7	12/21/16 12:00 PM	1/0/00 12:00 AM		\$0
16	12/31/2016	\$0	12/25/16 12:00 AM	1/1/17 12:00 AM	7	12/28/16 12:00 PM	1/0/00 12:00 AM		\$0
17									
18		<u>\$0</u>						0.00	<u>\$0</u>
19									
20									
21	<u>Semi Monthly</u>								
22									
23	10/15/2016	\$0	10/1/16 12:00 AM	10/16/16 12:00 AM	15	10/8/16 12:00 PM	1/0/00 12:00 AM		\$0
24	10/31/2016	\$0	10/16/16 12:00 AM	11/1/16 12:00 AM	16	10/24/16 12:00 AM	1/0/00 12:00 AM		\$0
25	11/15/2016	\$0	11/1/16 12:00 AM	11/16/16 12:00 AM	15	11/8/16 12:00 PM	1/0/00 12:00 AM		\$0
26	11/30/2016	\$0	11/16/16 12:00 AM	12/1/16 12:00 AM	15	11/23/16 12:00 PM	1/0/00 12:00 AM		\$0
27	12/15/2016	\$0	12/1/16 12:00 AM	12/16/16 12:00 AM	15	12/8/16 12:00 PM	1/0/00 12:00 AM		\$0
28	12/31/2016	\$0	12/16/16 12:00 AM	1/1/17 12:00 AM	16	12/24/16 12:00 AM	1/0/00 12:00 AM		\$0
29									
30		<u>\$0</u>						0.00	<u>\$0</u>
31									
32									
33									
34									
35	Total	<u>\$0</u>							
36									
37									
38									
39									
40									
41									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Payroll Lag Days
12 Months Ended Dec 31, 2016
ADP Payroll Lead Lag Summary

5/18/2017
11:51:07 AM

Line No	Gross Payroll Items	Amount	(Lead) Lag Days	Weighted Dollar Days
1				
2	<u>Weekly</u>			
3	Net Payroll	\$539,864	6.86	\$3,702,948
4	Garnishment	\$0	0.00	\$0
5	FIT Withholding	\$123,587	6.86	\$847,348
6	EE Soc Sec	\$51,968	6.86	\$356,467
7	EE Medicare	\$12,299	6.86	\$84,315
8	ME State W/H	\$4,306	6.88	\$29,602
9	MA State W/H	\$996	6.84	\$6,813
10				
11	Total Weekly Payroll	<u>\$733,019</u>	6.86	<u>\$5,027,493</u>
12				
13				
14	<u>Semi Monthly</u>			
15	Net Payroll	\$104,734	-1.80	-\$188,979
16	Garnishment	\$0	0.00	\$0
17	FIT Withholding	\$22,074	-1.79	-\$39,483
18	EE Soc Sec	\$9,186	-1.78	-\$16,343
19	EE Medicare	\$2,711	-1.79	-\$4,847
20	ME State W/H	\$1,598	-1.80	-\$2,873
21	MA State W/H	\$3,264	-1.80	-\$5,883
22				
23	Total Bi Monthly Payroll	<u>\$143,567</u>	-1.80	<u>-\$258,407</u>
24				
25				
26	Total Weekly & Semi Monthly	<u>\$876,586</u>	5.44	<u>\$4,769,086</u>
27				
28				
29	<u>Incentive Pay</u>			
30	Net Payroll	\$46,660	220.50	\$10,288,475
31	Garnishment	\$0	0.00	\$0
32	FIT Withholding	\$18,245	220.50	\$4,023,000
33	EE Soc Sec	\$4,561	220.50	\$1,005,648
34	EE Medicare	\$1,067	220.50	\$235,192
35	ME State W/H	\$587	220.50	\$129,396
36	MA State W/H	\$1,861	220.50	\$410,291
37				
38	Total Incentive Payroll	<u>\$72,980</u>	220.50	<u>\$16,092,002</u>
39				
40		\$949,566		
41				
42		Annual		
43	<u>Employer Payroll Taxes</u>	<u>Expense</u>		
44	Social Security Employer Weekly	\$188,217	6.86	\$1,291,037
45	Social Security Employer Semi Monthly	\$41,799	-1.78	-\$74,368
46	Social Security Employer Incentive	\$4,561	220.50	\$1,005,654
47	Medicare Employer Weekly	\$44,181	6.86	\$302,888
48	Medicare Employer Semi Monthly	\$10,425	-1.79	-\$18,639
49	Medicare Employer Incentive	\$1,067	220.50	\$235,194
50	FUI Employer Weekly	\$1,627	6.86	\$11,157
51	FUI Employer Semi Monthly	\$294	-1.80	-\$529
52	FUI Employer Incentive	\$32	220.50	\$7,096
53	SUI Employer Weekly	\$1,966	6.86	\$13,485
54	SUI Employer Semi Monthly	\$477	-1.80	-\$858
55	SUI Employer incentive	<u>\$11</u>	220.50	<u>\$2,472</u>
56				
57	Total Employer Payroll Taxes	<u>\$294,656</u>	9.42	<u>\$2,774,589</u>
58				
59				
60	Total FICA Taxes	<u>\$290,249</u>	9.45	<u>\$2,741,766</u>
61				
62	Total Federal Unemployment Taxes	<u>\$1,953</u>	9.08	<u>\$17,723</u>
63				
64	Total State Unemployment Taxes	<u>\$2,454</u>	6.15	<u>\$15,099</u>
65				

Northern Utilities, Inc. - New Hampshire Division
Calculation of Payroll Lag Days
12 Months Ended Dec 31, 2016
Total Payroll Service

5/18/2017
11:51:07 AM

Line No	Payroll Description	Gross Pay Amount	Total ADP Payroll Items	Total Transfer to ADP	Difference	Total Payroll Deductions
1	<u>Weekly</u>					
2						
3	10/1/2016	\$60,358	\$54,198	\$54,198	\$0	\$49,777
4	10/8/2016	\$62,692	\$57,042	\$57,042	\$0	\$52,439
5	10/15/2016	\$64,115	\$58,031	\$58,031	\$0	\$53,332
6	10/22/2016	\$62,526	\$57,397	\$57,397	\$0	\$52,816
7	10/29/2016	\$62,667	\$56,824	\$56,824	\$0	\$52,232
8	11/5/2016	\$63,892	\$58,010	\$58,010	\$0	\$53,322
9	11/12/2016	\$62,523	\$56,391	\$56,391	\$0	\$51,807
10	11/19/2016	\$59,308	\$53,597	\$53,597	\$0	\$49,259
11	11/26/2016	\$56,245	\$50,188	\$50,188	\$0	\$46,085
12	12/3/2016	\$61,756	\$55,827	\$55,827	\$0	\$51,302
13	12/10/2016	\$61,831	\$53,332	\$53,332	\$0	\$48,887
14	12/17/2016	\$68,401	\$59,132	\$59,132	\$0	\$54,382
15	12/24/2016	\$60,814	\$54,614	\$54,614	\$0	\$50,411
16	12/31/2016	\$77,912	\$73,231	\$73,231	\$0	\$66,968
17						
18		<u>\$885,039</u>	<u>\$797,813</u>	<u>\$797,813</u>		<u>\$733,019</u>
19						
20						
21	<u>Semi Monthly</u>					
22						
23	10/15/2016	\$29,782	\$26,729	\$26,729	\$0	\$24,808
24	10/31/2016	\$27,782	\$24,576	\$24,576	\$0	\$22,808
25	11/15/2016	\$29,782	\$26,729	\$26,729	\$0	\$24,808
26	11/30/2016	\$36,830	\$25,096	\$25,096	\$0	\$22,808
27	12/15/2016	\$36,406	\$27,464	\$27,464	\$0	\$25,208
28	12/31/2016	\$28,103	\$24,869	\$24,869	\$0	\$23,128
29						
30		<u>\$188,684</u>	<u>\$155,464</u>	<u>\$155,464</u>		<u>\$143,567</u>
31						
32						
33	<u>Incentive Pay</u>					
34	February 2017					
35	Incentive Pay-Weekly	\$9,633	\$9,830	\$9,830	\$0	\$9,052
36	Incentive Pay-Salary	\$63,928	\$68,820	\$68,820	\$0	\$63,928
37						
38		<u>\$73,561</u>	<u>\$78,650</u>	<u>\$78,650</u>		<u>\$72,980</u>
39						
40						
41	Total	<u>\$1,147,285</u>	<u>\$1,031,927</u>	<u>\$1,031,927</u>		<u>\$949,566</u>
42						

\$1,031,927

Northern Utilities, Inc. - New Hampshire Division
Calculation of Payroll Lag Days
12 Months Ended Dec 31, 2016
Net Payroll

5/18/2017
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Line No	Payroll Description	Net Payroll Amount	Service Period Start	End	Total Days	Midpoint Service Period	Wire Transfer Date	(Lead) Lag Days	Weighted Dollar Days
1	<u>Weekly</u>								
2									
3	10/1/2016	\$36,724	9/25/16 12:00 AM	10/2/16 12:00 AM	7	9/28/16 12:00 PM	10/5/16 12:00 PM	7.00	\$257,065
4	10/8/2016	\$38,564	10/2/16 12:00 AM	10/9/16 12:00 AM	7	10/5/16 12:00 PM	10/12/16 12:00 PM	7.00	\$269,947
5	10/15/2016	\$39,345	10/9/16 12:00 AM	10/16/16 12:00 AM	7	10/12/16 12:00 PM	10/19/16 12:00 PM	7.00	\$275,414
6	10/22/2016	\$39,067	10/16/16 12:00 AM	10/23/16 12:00 AM	7	10/19/16 12:00 PM	10/26/16 12:00 PM	7.00	\$273,468
7	10/29/2016	\$38,606	10/23/16 12:00 AM	10/30/16 12:00 AM	7	10/26/16 12:00 PM	11/2/16 12:00 PM	7.00	\$270,243
8	11/5/2016	\$39,209	10/30/16 12:00 AM	11/6/16 12:00 AM	7	11/2/16 12:00 PM	11/9/16 12:00 PM	7.00	\$274,464
9	11/12/2016	\$38,010	11/6/16 12:00 AM	11/13/16 12:00 AM	7	11/9/16 12:00 PM	11/16/16 12:00 PM	7.00	\$266,070
10	11/19/2016	\$36,577	11/13/16 12:00 AM	11/20/16 12:00 AM	7	11/16/16 12:00 PM	11/22/16 12:00 PM	6.00	\$219,460
11	11/26/2016	\$34,408	11/20/16 12:00 AM	11/27/16 12:00 AM	7	11/23/16 12:00 PM	11/30/16 12:00 PM	7.00	\$240,857
12	12/3/2016	\$37,868	11/27/16 12:00 AM	12/4/16 12:00 AM	7	11/30/16 12:00 PM	12/7/16 12:00 PM	7.00	\$265,077
13	12/10/2016	\$36,204	12/4/16 12:00 AM	12/11/16 12:00 AM	7	12/7/16 12:00 PM	12/14/16 12:00 PM	7.00	\$253,428
14	12/17/2016	\$39,521	12/11/16 12:00 AM	12/18/16 12:00 AM	7	12/14/16 12:00 PM	12/20/16 12:00 PM	6.00	\$237,123
15	12/24/2016	\$37,454	12/18/16 12:00 AM	12/25/16 12:00 AM	7	12/21/16 12:00 PM	12/28/16 12:00 PM	7.00	\$262,181
16	12/31/2016	\$48,307	12/25/16 12:00 AM	1/1/17 12:00 AM	7	12/28/16 12:00 PM	1/4/17 12:00 PM	7.00	\$338,151
17									
18		<u>\$539,864</u>						6.86	<u>\$3,702,948</u>
19									
20									
21	<u>Semi Monthly</u>								
22									
23	10/15/2016	\$18,172	10/1/16 12:00 AM	10/16/16 12:00 AM	15	10/8/16 12:00 PM	10/5/16 12:00 PM	-3.00	-\$54,515
24	10/31/2016	\$16,827	10/16/16 12:00 AM	11/1/16 12:00 AM	16	10/24/16 12:00 AM	10/21/16 12:00 PM	-2.50	-\$42,067
25	11/15/2016	\$18,172	11/1/16 12:00 AM	11/16/16 12:00 AM	15	11/8/16 12:00 PM	11/9/16 12:00 PM	1.00	\$18,172
26	11/30/2016	\$16,307	11/16/16 12:00 AM	12/1/16 12:00 AM	15	11/23/16 12:00 PM	11/21/16 12:00 PM	-2.00	-\$32,614
27	12/15/2016	\$18,178	12/1/16 12:00 AM	12/16/16 12:00 AM	15	12/8/16 12:00 PM	12/7/16 12:00 PM	-1.00	-\$18,178
28	12/31/2016	\$17,079	12/16/16 12:00 AM	1/1/17 12:00 AM	16	12/24/16 12:00 AM	12/20/16 12:00 PM	-3.50	-\$59,776
29									
30		<u>\$104,734</u>						-1.80	<u>-\$188,979</u>
31									
32									
33	<u>Incentive Pay</u>								
34	February 2017								
35	Incentive Pay-Weekly	\$5,778	1/1/16 12:00 AM	1/1/17 12:00 AM	366	7/2/16 12:00 AM	2/7/17 12:00 PM	220.50	\$1,273,970
36	Incentive Pay-Salary	<u>\$40,882</u>	1/1/16 12:00 AM	1/1/17 12:00 AM	366	7/2/16 12:00 AM	2/7/17 12:00 PM	220.50	<u>\$9,014,505</u>
37		<u>\$46,660</u>						220.50	<u>\$10,288,475</u>
38									
39									
40	Total	<u>\$691,257</u>							

Northern Utilities, Inc. - New Hampshire Division
Calculation of Payroll Lag Days
12 Months Ended Dec 31, 2016
Garnishment

5/18/2017
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Line No	Payroll Description	Amount	Service Period Start	End	Total Days	Midpoint Service Period	Wire Transfer Date	(Lead) Lag Days	Weighted Dollar Days
1	<u>Weekly</u>								
2									
3	10/1/2016	\$0	9/25/16 12:00 AM	10/2/16 12:00 AM	7	9/28/16 12:00 PM	10/5/16 12:00 PM	7.00	\$0
4	10/8/2016	\$0	10/2/16 12:00 AM	10/9/16 12:00 AM	7	10/5/16 12:00 PM	10/12/16 12:00 PM	7.00	\$0
5	10/15/2016	\$0	10/9/16 12:00 AM	10/16/16 12:00 AM	7	10/12/16 12:00 PM	10/19/16 12:00 PM	7.00	\$0
6	10/22/2016	\$0	10/16/16 12:00 AM	10/23/16 12:00 AM	7	10/19/16 12:00 PM	10/26/16 12:00 PM	7.00	\$0
7	10/29/2016	\$0	10/23/16 12:00 AM	10/30/16 12:00 AM	7	10/26/16 12:00 PM	11/2/16 12:00 PM	7.00	\$0
8	11/5/2016	\$0	10/30/16 12:00 AM	11/6/16 12:00 AM	7	11/2/16 12:00 PM	11/9/16 12:00 PM	7.00	\$0
9	11/12/2016	\$0	11/6/16 12:00 AM	11/13/16 12:00 AM	7	11/9/16 12:00 PM	11/16/16 12:00 PM	7.00	\$0
10	11/19/2016	\$0	11/13/16 12:00 AM	11/20/16 12:00 AM	7	11/16/16 12:00 PM	11/22/16 12:00 PM	6.00	\$0
11	11/26/2016	\$0	11/20/16 12:00 AM	11/27/16 12:00 AM	7	11/23/16 12:00 PM	11/30/16 12:00 PM	7.00	\$0
12	12/3/2016	\$0	11/27/16 12:00 AM	12/4/16 12:00 AM	7	11/30/16 12:00 PM	12/7/16 12:00 PM	7.00	\$0
13	12/10/2016	\$0	12/4/16 12:00 AM	12/11/16 12:00 AM	7	12/7/16 12:00 PM	12/14/16 12:00 PM	7.00	\$0
14	12/17/2016	\$0	12/11/16 12:00 AM	12/18/16 12:00 AM	7	12/14/16 12:00 PM	12/20/16 12:00 PM	6.00	\$0
15	12/24/2016	\$0	12/18/16 12:00 AM	12/25/16 12:00 AM	7	12/21/16 12:00 PM	12/28/16 12:00 PM	7.00	\$0
16	12/31/2016	\$0	12/25/16 12:00 AM	1/1/17 12:00 AM	7	12/28/16 12:00 PM	1/4/17 12:00 PM	7.00	\$0
17									
18		<u>\$0</u>						0.00	<u>\$0</u>
19									
20									
21	<u>Semi Monthly</u>								
22									
23	10/15/2016	\$0	10/1/16 12:00 AM	10/16/16 12:00 AM	15	10/8/16 12:00 PM	10/5/16 12:00 PM	-3.00	\$0
24	10/31/2016	\$0	10/16/16 12:00 AM	11/1/16 12:00 AM	16	10/24/16 12:00 AM	10/21/16 12:00 PM	-2.50	\$0
25	11/15/2016	\$0	11/1/16 12:00 AM	11/16/16 12:00 AM	15	11/8/16 12:00 PM	11/9/16 12:00 PM	1.00	\$0
26	11/30/2016	\$0	11/16/16 12:00 AM	12/1/16 12:00 AM	15	11/23/16 12:00 PM	11/21/16 12:00 PM	-2.00	\$0
27	12/15/2016	\$0	12/1/16 12:00 AM	12/16/16 12:00 AM	15	12/8/16 12:00 PM	12/7/16 12:00 PM	-1.00	\$0
28	12/31/2016	\$0	12/16/16 12:00 AM	1/1/17 12:00 AM	16	12/24/16 12:00 AM	12/20/16 12:00 PM	-3.50	\$0
29									
30		<u>\$0</u>						0.00	<u>\$0</u>
31									
32									
33	<u>Incentive Pay</u>								
34	February 2017								
35	Incentive Pay-Weekly	\$0	1/1/16 12:00 AM	1/1/17 12:00 AM	366	7/2/16 12:00 AM	2/7/17 12:00 PM	220.50	\$0
36	Incentive Pay-Salary	\$0	1/1/16 12:00 AM	1/1/17 12:00 AM	366	7/2/16 12:00 AM	2/7/17 12:00 PM	220.50	\$0
37		<u>\$0</u>						0.00	<u>\$0</u>
38									
39									
40	Total	<u>\$0</u>							

Northern Utilities, Inc. - New Hampshire Division
Calculation of Payroll Lag Days
12 Months Ended Dec 31, 2016
FIT Withholding

5/18/2017
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Line No	Payroll Description	Amount	Service Period Start	End	Total Days	Midpoint Service Period	Wire Transfer Date	(Lead) Lag Days	Weighted Dollar Days
1	<u>Weekly</u>								
2									
3	10/1/2016	\$8,212	9/25/16 12:00 AM	10/2/16 12:00 AM	7	9/28/16 12:00 PM	10/5/16 12:00 PM	7.00	\$57,481
4	10/8/2016	\$8,903	10/2/16 12:00 AM	10/9/16 12:00 AM	7	10/5/16 12:00 PM	10/12/16 12:00 PM	7.00	\$62,318
5	10/15/2016	\$8,984	10/9/16 12:00 AM	10/16/16 12:00 AM	7	10/12/16 12:00 PM	10/19/16 12:00 PM	7.00	\$62,891
6	10/22/2016	\$8,797	10/16/16 12:00 AM	10/23/16 12:00 AM	7	10/19/16 12:00 PM	10/26/16 12:00 PM	7.00	\$61,580
7	10/29/2016	\$8,674	10/23/16 12:00 AM	10/30/16 12:00 AM	7	10/26/16 12:00 PM	11/2/16 12:00 PM	7.00	\$60,717
8	11/5/2016	\$8,979	10/30/16 12:00 AM	11/6/16 12:00 AM	7	11/2/16 12:00 PM	11/9/16 12:00 PM	7.00	\$62,856
9	11/12/2016	\$8,720	11/6/16 12:00 AM	11/13/16 12:00 AM	7	11/9/16 12:00 PM	11/16/16 12:00 PM	7.00	\$61,038
10	11/19/2016	\$8,057	11/13/16 12:00 AM	11/20/16 12:00 AM	7	11/16/16 12:00 PM	11/22/16 12:00 PM	6.00	\$48,345
11	11/26/2016	\$7,268	11/20/16 12:00 AM	11/27/16 12:00 AM	7	11/23/16 12:00 PM	11/30/16 12:00 PM	7.00	\$50,876
12	12/3/2016	\$8,478	11/27/16 12:00 AM	12/4/16 12:00 AM	7	11/30/16 12:00 PM	12/7/16 12:00 PM	7.00	\$59,347
13	12/10/2016	\$7,924	12/4/16 12:00 AM	12/11/16 12:00 AM	7	12/7/16 12:00 PM	12/14/16 12:00 PM	7.00	\$55,466
14	12/17/2016	\$9,705	12/11/16 12:00 AM	12/18/16 12:00 AM	7	12/14/16 12:00 PM	12/20/16 12:00 PM	6.00	\$58,228
15	12/24/2016	\$8,411	12/18/16 12:00 AM	12/25/16 12:00 AM	7	12/21/16 12:00 PM	12/28/16 12:00 PM	7.00	\$58,880
16	12/31/2016	\$12,475	12/25/16 12:00 AM	1/1/17 12:00 AM	7	12/28/16 12:00 PM	1/4/17 12:00 PM	7.00	\$87,325
17									
18		<u>\$123,587</u>						6.86	<u>\$847,348</u>
19									
20									
21	<u>Semi Monthly</u>								
22									
23	10/15/2016	\$3,870	10/1/16 12:00 AM	10/16/16 12:00 AM	15	10/8/16 12:00 PM	10/5/16 12:00 PM	-3.00	-\$11,609
24	10/31/2016	\$3,442	10/16/16 12:00 AM	11/1/16 12:00 AM	16	10/24/16 12:00 AM	10/21/16 12:00 PM	-2.50	-\$8,604
25	11/15/2016	\$3,870	11/1/16 12:00 AM	11/16/16 12:00 AM	15	11/8/16 12:00 PM	11/9/16 12:00 PM	1.00	\$3,870
26	11/30/2016	\$3,442	11/16/16 12:00 AM	12/1/16 12:00 AM	15	11/23/16 12:00 PM	11/21/16 12:00 PM	-2.00	-\$6,883
27	12/15/2016	\$3,930	12/1/16 12:00 AM	12/16/16 12:00 AM	15	12/8/16 12:00 PM	12/7/16 12:00 PM	-1.00	-\$3,930
28	12/31/2016	\$3,522	12/16/16 12:00 AM	1/1/17 12:00 AM	16	12/24/16 12:00 AM	12/20/16 12:00 PM	-3.50	-\$12,326
29									
30		<u>\$22,074</u>						-1.79	<u>-\$39,483</u>
31									
32									
33	<u>Incentive Pay</u>								
34	February 2017								
35	Incentive Pay-Weekly	\$2,263	1/1/16 12:00 AM	1/1/17 12:00 AM	366	7/2/16 12:00 AM	2/7/17 12:00 PM	220.50	\$498,969
36	Incentive Pay-Salary	\$15,982	1/1/16 12:00 AM	1/1/17 12:00 AM	366	7/2/16 12:00 AM	2/7/17 12:00 PM	220.50	\$3,524,031
37		<u>\$18,245</u>						220.50	<u>\$4,023,000</u>
38									
39									
40	Total	<u>\$163,906</u>							

Northern Utilities, Inc. - New Hampshire Division
Calculation of Payroll Lag Days
12 Months Ended Dec 31, 2016
EE Soc Sec

5/18/2017
11:51:07 AM

Line No	Payroll Description	Amount	Service Period Start	End	Total Days	Midpoint Service Period	Wire Transfer Date	(Lead) Lag Days	Weighted Dollar Days
1	<u>Weekly</u>								
2									
3	10/1/2016	\$3,583	9/25/16 12:00 AM	10/2/16 12:00 AM	7	9/28/16 12:00 PM	10/5/16 12:00 PM	7.00	\$25,081
4	10/8/2016	\$3,730	10/2/16 12:00 AM	10/9/16 12:00 AM	7	10/5/16 12:00 PM	10/12/16 12:00 PM	7.00	\$26,112
5	10/15/2016	\$3,809	10/9/16 12:00 AM	10/16/16 12:00 AM	7	10/12/16 12:00 PM	10/19/16 12:00 PM	7.00	\$26,660
6	10/22/2016	\$3,713	10/16/16 12:00 AM	10/23/16 12:00 AM	7	10/19/16 12:00 PM	10/26/16 12:00 PM	7.00	\$25,988
7	10/29/2016	\$3,722	10/23/16 12:00 AM	10/30/16 12:00 AM	7	10/26/16 12:00 PM	11/2/16 12:00 PM	7.00	\$26,051
8	11/5/2016	\$3,800	10/30/16 12:00 AM	11/6/16 12:00 AM	7	11/2/16 12:00 PM	11/9/16 12:00 PM	7.00	\$26,598
9	11/12/2016	\$3,715	11/6/16 12:00 AM	11/13/16 12:00 AM	7	11/9/16 12:00 PM	11/16/16 12:00 PM	7.00	\$26,004
10	11/19/2016	\$3,515	11/13/16 12:00 AM	11/20/16 12:00 AM	7	11/16/16 12:00 PM	11/22/16 12:00 PM	6.00	\$21,093
11	11/26/2016	\$3,326	11/20/16 12:00 AM	11/27/16 12:00 AM	7	11/23/16 12:00 PM	11/30/16 12:00 PM	7.00	\$23,279
12	12/3/2016	\$3,667	11/27/16 12:00 AM	12/4/16 12:00 AM	7	11/30/16 12:00 PM	12/7/16 12:00 PM	7.00	\$25,671
13	12/10/2016	\$3,586	12/4/16 12:00 AM	12/11/16 12:00 AM	7	12/7/16 12:00 PM	12/14/16 12:00 PM	7.00	\$25,099
14	12/17/2016	\$3,796	12/11/16 12:00 AM	12/18/16 12:00 AM	7	12/14/16 12:00 PM	12/20/16 12:00 PM	6.00	\$22,774
15	12/24/2016	\$3,359	12/18/16 12:00 AM	12/25/16 12:00 AM	7	12/21/16 12:00 PM	12/28/16 12:00 PM	7.00	\$23,514
16	12/31/2016	\$4,649	12/25/16 12:00 AM	1/1/17 12:00 AM	7	12/28/16 12:00 PM	1/4/17 12:00 PM	7.00	\$32,544
17									
18		<u>\$51,968</u>						6.86	<u>\$356,467</u>
19									
20									
21	<u>Semi Monthly</u>								
22									
23	10/15/2016	\$1,494	10/1/16 12:00 AM	10/16/16 12:00 AM	15	10/8/16 12:00 PM	10/5/16 12:00 PM	-3.00	-\$4,482
24	10/31/2016	\$1,370	10/16/16 12:00 AM	11/1/16 12:00 AM	16	10/24/16 12:00 AM	10/21/16 12:00 PM	-2.50	-\$3,425
25	11/15/2016	\$1,494	11/1/16 12:00 AM	11/16/16 12:00 AM	15	11/8/16 12:00 PM	11/9/16 12:00 PM	1.00	\$1,494
26	11/30/2016	\$1,758	11/16/16 12:00 AM	12/1/16 12:00 AM	15	11/23/16 12:00 PM	11/21/16 12:00 PM	-2.00	-\$3,517
27	12/15/2016	\$1,732	12/1/16 12:00 AM	12/16/16 12:00 AM	15	12/8/16 12:00 PM	12/7/16 12:00 PM	-1.00	-\$1,732
28	12/31/2016	\$1,338	12/16/16 12:00 AM	1/1/17 12:00 AM	16	12/24/16 12:00 AM	12/20/16 12:00 PM	-3.50	-\$4,682
29									
30		<u>\$9,186</u>						-1.78	<u>-\$16,343</u>
31									
32									
33	<u>Incentive Pay</u>								
34	February 2017								
35	Incentive Pay-Weekly	\$597	1/1/16 12:00 AM	1/1/17 12:00 AM	366	7/2/16 12:00 AM	2/7/17 12:00 PM	220.50	\$131,694
36	Incentive Pay-Salary	\$3,964	1/1/16 12:00 AM	1/1/17 12:00 AM	366	7/2/16 12:00 AM	2/7/17 12:00 PM	220.50	\$873,954
37		<u>\$4,561</u>						220.50	<u>\$1,005,648</u>
38									
39									
40	Total	<u>\$65,715</u>							

Northern Utilities, Inc. - New Hampshire Division
Calculation of Payroll Lag Days
12 Months Ended Dec 31, 2016
EE Medicare

5/18/2017
11:51:07 AM

Line No	Payroll Description	Amount	Service Period Start	End	Total Days	Midpoint Service Period	Wire Transfer Date	(Lead) Lag Days	Weighted Dollar Days
1	<u>Weekly</u>								
2									
3	10/1/2016	\$838	9/25/16 12:00 AM	10/2/16 12:00 AM	7	9/28/16 12:00 PM	10/5/16 12:00 PM	7.00	\$5,866
4	10/8/2016	\$872	10/2/16 12:00 AM	10/9/16 12:00 AM	7	10/5/16 12:00 PM	10/12/16 12:00 PM	7.00	\$6,107
5	10/15/2016	\$891	10/9/16 12:00 AM	10/16/16 12:00 AM	7	10/12/16 12:00 PM	10/19/16 12:00 PM	7.00	\$6,235
6	10/22/2016	\$868	10/16/16 12:00 AM	10/23/16 12:00 AM	7	10/19/16 12:00 PM	10/26/16 12:00 PM	7.00	\$6,078
7	10/29/2016	\$870	10/23/16 12:00 AM	10/30/16 12:00 AM	7	10/26/16 12:00 PM	11/2/16 12:00 PM	7.00	\$6,093
8	11/5/2016	\$889	10/30/16 12:00 AM	11/6/16 12:00 AM	7	11/2/16 12:00 PM	11/9/16 12:00 PM	7.00	\$6,220
9	11/12/2016	\$869	11/6/16 12:00 AM	11/13/16 12:00 AM	7	11/9/16 12:00 PM	11/16/16 12:00 PM	7.00	\$6,081
10	11/19/2016	\$822	11/13/16 12:00 AM	11/20/16 12:00 AM	7	11/16/16 12:00 PM	11/22/16 12:00 PM	6.00	\$4,933
11	11/26/2016	\$778	11/20/16 12:00 AM	11/27/16 12:00 AM	7	11/23/16 12:00 PM	11/30/16 12:00 PM	7.00	\$5,444
12	12/3/2016	\$858	11/27/16 12:00 AM	12/4/16 12:00 AM	7	11/30/16 12:00 PM	12/7/16 12:00 PM	7.00	\$6,004
13	12/10/2016	\$859	12/4/16 12:00 AM	12/11/16 12:00 AM	7	12/7/16 12:00 PM	12/14/16 12:00 PM	7.00	\$6,011
14	12/17/2016	\$954	12/11/16 12:00 AM	12/18/16 12:00 AM	7	12/14/16 12:00 PM	12/20/16 12:00 PM	6.00	\$5,724
15	12/24/2016	\$844	12/18/16 12:00 AM	12/25/16 12:00 AM	7	12/21/16 12:00 PM	12/28/16 12:00 PM	7.00	\$5,908
16	12/31/2016	\$1,087	12/25/16 12:00 AM	1/1/17 12:00 AM	7	12/28/16 12:00 PM	1/4/17 12:00 PM	7.00	\$7,611
17									
18		<u>\$12,299</u>						6.86	<u>\$84,315</u>
19									
20									
21	<u>Semi Monthly</u>								
22									
23	10/15/2016	\$428	10/1/16 12:00 AM	10/16/16 12:00 AM	15	10/8/16 12:00 PM	10/5/16 12:00 PM	-3.00	-\$1,283
24	10/31/2016	\$399	10/16/16 12:00 AM	11/1/16 12:00 AM	16	10/24/16 12:00 AM	10/21/16 12:00 PM	-2.50	-\$997
25	11/15/2016	\$428	11/1/16 12:00 AM	11/16/16 12:00 AM	15	11/8/16 12:00 PM	11/9/16 12:00 PM	1.00	\$428
26	11/30/2016	\$530	11/16/16 12:00 AM	12/1/16 12:00 AM	15	11/23/16 12:00 PM	11/21/16 12:00 PM	-2.00	-\$1,060
27	12/15/2016	\$524	12/1/16 12:00 AM	12/16/16 12:00 AM	15	12/8/16 12:00 PM	12/7/16 12:00 PM	-1.00	-\$524
28	12/31/2016	\$403	12/16/16 12:00 AM	1/1/17 12:00 AM	16	12/24/16 12:00 AM	12/20/16 12:00 PM	-3.50	-\$1,412
29									
30		<u>\$2,711</u>						-1.79	<u>-\$4,847</u>
31									
32									
33	<u>Incentive Pay</u>								
34	February 2017								
35	Incentive Pay-Weekly	\$140	1/1/16 12:00 AM	1/1/17 12:00 AM	366	7/2/16 12:00 AM	2/7/17 12:00 PM	220.50	\$30,799
36	Incentive Pay-Salary	\$927	1/1/16 12:00 AM	1/1/17 12:00 AM	366	7/2/16 12:00 AM	2/7/17 12:00 PM	220.50	\$204,392
37		<u>\$1,067</u>						220.50	<u>\$235,192</u>
38									
39									
40	Total	<u>\$16,076</u>							

Northern Utilities, Inc. - New Hampshire Division
Calculation of Payroll Lag Days
12 Months Ended Dec 31, 2016
ME State W/H

5/18/2017
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Line No	Payroll Description	Amount	Service Period Start	End	Total Days	Midpoint Service Period	Wire Transfer Date	(Lead) Lag Days	Weighted Dollar Days
1	<u>Weekly</u>								
2									
3	10/1/2016	\$361	9/25/16 12:00 AM	10/2/16 12:00 AM	7	9/28/16 12:00 PM	10/5/16 12:00 PM	7.00	\$2,526
4	10/8/2016	\$293	10/2/16 12:00 AM	10/9/16 12:00 AM	7	10/5/16 12:00 PM	10/12/16 12:00 PM	7.00	\$2,054
5	10/15/2016	\$221	10/9/16 12:00 AM	10/16/16 12:00 AM	7	10/12/16 12:00 PM	10/19/16 12:00 PM	7.00	\$1,548
6	10/22/2016	\$307	10/16/16 12:00 AM	10/23/16 12:00 AM	7	10/19/16 12:00 PM	10/26/16 12:00 PM	7.00	\$2,146
7	10/29/2016	\$301	10/23/16 12:00 AM	10/30/16 12:00 AM	7	10/26/16 12:00 PM	11/2/16 12:00 PM	7.00	\$2,108
8	11/5/2016	\$386	10/30/16 12:00 AM	11/6/16 12:00 AM	7	11/2/16 12:00 PM	11/9/16 12:00 PM	7.00	\$2,702
9	11/12/2016	\$410	11/6/16 12:00 AM	11/13/16 12:00 AM	7	11/9/16 12:00 PM	11/16/16 12:00 PM	7.00	\$2,867
10	11/19/2016	\$221	11/13/16 12:00 AM	11/20/16 12:00 AM	7	11/16/16 12:00 PM	11/22/16 12:00 PM	6.00	\$1,327
11	11/26/2016	\$244	11/20/16 12:00 AM	11/27/16 12:00 AM	7	11/23/16 12:00 PM	11/30/16 12:00 PM	7.00	\$1,708
12	12/3/2016	\$357	11/27/16 12:00 AM	12/4/16 12:00 AM	7	11/30/16 12:00 PM	12/7/16 12:00 PM	7.00	\$2,501
13	12/10/2016	\$249	12/4/16 12:00 AM	12/11/16 12:00 AM	7	12/7/16 12:00 PM	12/14/16 12:00 PM	7.00	\$1,744
14	12/17/2016	\$316	12/11/16 12:00 AM	12/18/16 12:00 AM	7	12/14/16 12:00 PM	12/20/16 12:00 PM	6.00	\$1,894
15	12/24/2016	\$271	12/18/16 12:00 AM	12/25/16 12:00 AM	7	12/21/16 12:00 PM	12/28/16 12:00 PM	7.00	\$1,898
16	12/31/2016	\$369	12/25/16 12:00 AM	1/1/17 12:00 AM	7	12/28/16 12:00 PM	1/4/17 12:00 PM	7.00	\$2,580
17									
18		<u>\$4,306</u>						6.88	<u>\$29,602</u>
19									
20									
21	<u>Semi Monthly</u>								
22									
23	10/15/2016	\$280	10/1/16 12:00 AM	10/16/16 12:00 AM	15	10/8/16 12:00 PM	10/5/16 12:00 PM	-3.00	-\$840
24	10/31/2016	\$247	10/16/16 12:00 AM	11/1/16 12:00 AM	16	10/24/16 12:00 AM	10/21/16 12:00 PM	-2.50	-\$618
25	11/15/2016	\$280	11/1/16 12:00 AM	11/16/16 12:00 AM	15	11/8/16 12:00 PM	11/9/16 12:00 PM	1.00	\$280
26	11/30/2016	\$247	11/16/16 12:00 AM	12/1/16 12:00 AM	15	11/23/16 12:00 PM	11/21/16 12:00 PM	-2.00	-\$494
27	12/15/2016	\$280	12/1/16 12:00 AM	12/16/16 12:00 AM	15	12/8/16 12:00 PM	12/7/16 12:00 PM	-1.00	-\$280
28	12/31/2016	\$263	12/16/16 12:00 AM	1/1/17 12:00 AM	16	12/24/16 12:00 AM	12/20/16 12:00 PM	-3.50	-\$921
29									
30		<u>\$1,598</u>						-1.80	<u>-\$2,873</u>
31									
32									
33	<u>Incentive Pay</u>								
34	February 2017								
35	Incentive Pay-Weekly	\$274	1/1/16 12:00 AM	1/1/17 12:00 AM	366	7/2/16 12:00 AM	2/7/17 12:00 PM	220.50	\$60,446
36	Incentive Pay-Salary	\$313	1/1/16 12:00 AM	1/1/17 12:00 AM	366	7/2/16 12:00 AM	2/7/17 12:00 PM	220.50	\$68,950
37		<u>\$587</u>						220.50	<u>\$129,396</u>
38									
39									
40	Total	<u>\$6,490</u>							

Northern Utilities, Inc. - New Hampshire Division
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12 Months Ended Dec 31, 2016
MA State W/H

5/18/2017
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Line No	Payroll Description	Amount	Service Period Start	End	Total Days	Midpoint Service Period	Wire Transfer Date	(Lead) Lag Days	Weighted Dollar Days
1	<u>Weekly</u>								
2									
3	10/1/2016	\$60	9/25/16 12:00 AM	10/2/16 12:00 AM	7	9/28/16 12:00 PM	10/5/16 12:00 PM	7.00	\$419
4	10/8/2016	\$77	10/2/16 12:00 AM	10/9/16 12:00 AM	7	10/5/16 12:00 PM	10/12/16 12:00 PM	7.00	\$539
5	10/15/2016	\$82	10/9/16 12:00 AM	10/16/16 12:00 AM	7	10/12/16 12:00 PM	10/19/16 12:00 PM	7.00	\$575
6	10/22/2016	\$65	10/16/16 12:00 AM	10/23/16 12:00 AM	7	10/19/16 12:00 PM	10/26/16 12:00 PM	7.00	\$454
7	10/29/2016	\$59	10/23/16 12:00 AM	10/30/16 12:00 AM	7	10/26/16 12:00 PM	11/2/16 12:00 PM	7.00	\$411
8	11/5/2016	\$59	10/30/16 12:00 AM	11/6/16 12:00 AM	7	11/2/16 12:00 PM	11/9/16 12:00 PM	7.00	\$411
9	11/12/2016	\$84	11/6/16 12:00 AM	11/13/16 12:00 AM	7	11/9/16 12:00 PM	11/16/16 12:00 PM	7.00	\$588
10	11/19/2016	\$66	11/13/16 12:00 AM	11/20/16 12:00 AM	7	11/16/16 12:00 PM	11/22/16 12:00 PM	6.00	\$396
11	11/26/2016	\$61	11/20/16 12:00 AM	11/27/16 12:00 AM	7	11/23/16 12:00 PM	11/30/16 12:00 PM	7.00	\$428
12	12/3/2016	\$74	11/27/16 12:00 AM	12/4/16 12:00 AM	7	11/30/16 12:00 PM	12/7/16 12:00 PM	7.00	\$517
13	12/10/2016	\$66	12/4/16 12:00 AM	12/11/16 12:00 AM	7	12/7/16 12:00 PM	12/14/16 12:00 PM	7.00	\$462
14	12/17/2016	\$91	12/11/16 12:00 AM	12/18/16 12:00 AM	7	12/14/16 12:00 PM	12/20/16 12:00 PM	6.00	\$549
15	12/24/2016	\$71	12/18/16 12:00 AM	12/25/16 12:00 AM	7	12/21/16 12:00 PM	12/28/16 12:00 PM	7.00	\$496
16	12/31/2016	\$81	12/25/16 12:00 AM	1/1/17 12:00 AM	7	12/28/16 12:00 PM	1/4/17 12:00 PM	7.00	\$566
17									
18		<u>\$996</u>						6.84	<u>\$6,813</u>
19									
20									
21	<u>Semi Monthly</u>								
22									
23	10/15/2016	\$564	10/1/16 12:00 AM	10/16/16 12:00 AM	15	10/8/16 12:00 PM	10/5/16 12:00 PM	-3.00	-\$1,693
24	10/31/2016	\$524	10/16/16 12:00 AM	11/1/16 12:00 AM	16	10/24/16 12:00 AM	10/21/16 12:00 PM	-2.50	-\$1,309
25	11/15/2016	\$564	11/1/16 12:00 AM	11/16/16 12:00 AM	15	11/8/16 12:00 PM	11/9/16 12:00 PM	1.00	\$564
26	11/30/2016	\$524	11/16/16 12:00 AM	12/1/16 12:00 AM	15	11/23/16 12:00 PM	11/21/16 12:00 PM	-2.00	-\$1,047
27	12/15/2016	\$564	12/1/16 12:00 AM	12/16/16 12:00 AM	15	12/8/16 12:00 PM	12/7/16 12:00 PM	-1.00	-\$564
28	12/31/2016	\$524	12/16/16 12:00 AM	1/1/17 12:00 AM	16	12/24/16 12:00 AM	12/20/16 12:00 PM	-3.50	-\$1,833
29									
30		<u>\$3,264</u>						-1.80	<u>-\$5,883</u>
31									
32									
33	<u>Incentive Pay</u>								
34	February 2017								
35	Incentive Pay-Weekly	\$0	1/1/16 12:00 AM	1/1/17 12:00 AM	366	7/2/16 12:00 AM	2/7/17 12:00 PM	220.50	\$0
36	Incentive Pay-Salary	<u>\$1,861</u>	1/1/16 12:00 AM	1/1/17 12:00 AM	366	7/2/16 12:00 AM	2/7/17 12:00 PM	220.50	<u>\$410,291</u>
37		<u>\$1,861</u>						220.50	<u>\$410,291</u>
38									
39									
40	Total	<u>\$6,121</u>							

Northern Utilities, Inc. - New Hampshire Division
Calculation of Payroll Lag Days
12 Months Ended Dec 31, 2016
ER Soc Sec

5/18/2017
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Line No	Payroll Description	Amount	Service Period Start	End	Total Days	Midpoint Service Period	Wire Transfer Date	(Lead) Lag Days	Weighted Dollar Days
1	<u>Weekly</u>								
2									
3	10/1/2016	\$3,583	9/25/16 12:00 AM	10/2/16 12:00 AM	7	9/28/16 12:00 PM	10/5/16 12:00 PM	7.00	\$25,081
4	10/8/2016	\$3,730	10/2/16 12:00 AM	10/9/16 12:00 AM	7	10/5/16 12:00 PM	10/12/16 12:00 PM	7.00	\$26,112
5	10/15/2016	\$3,809	10/9/16 12:00 AM	10/16/16 12:00 AM	7	10/12/16 12:00 PM	10/19/16 12:00 PM	7.00	\$26,660
6	10/22/2016	\$3,713	10/16/16 12:00 AM	10/23/16 12:00 AM	7	10/19/16 12:00 PM	10/26/16 12:00 PM	7.00	\$25,989
7	10/29/2016	\$3,722	10/23/16 12:00 AM	10/30/16 12:00 AM	7	10/26/16 12:00 PM	11/2/16 12:00 PM	7.00	\$26,051
8	11/5/2016	\$3,800	10/30/16 12:00 AM	11/6/16 12:00 AM	7	11/2/16 12:00 PM	11/9/16 12:00 PM	7.00	\$26,598
9	11/12/2016	\$3,715	11/6/16 12:00 AM	11/13/16 12:00 AM	7	11/9/16 12:00 PM	11/16/16 12:00 PM	7.00	\$26,004
10	11/19/2016	\$3,515	11/13/16 12:00 AM	11/20/16 12:00 AM	7	11/16/16 12:00 PM	11/22/16 12:00 PM	6.00	\$21,093
11	11/26/2016	\$3,326	11/20/16 12:00 AM	11/27/16 12:00 AM	7	11/23/16 12:00 PM	11/30/16 12:00 PM	7.00	\$23,279
12	12/3/2016	\$3,667	11/27/16 12:00 AM	12/4/16 12:00 AM	7	11/30/16 12:00 PM	12/7/16 12:00 PM	7.00	\$25,671
13	12/10/2016	\$3,586	12/4/16 12:00 AM	12/11/16 12:00 AM	7	12/7/16 12:00 PM	12/14/16 12:00 PM	7.00	\$25,099
14	12/17/2016	\$3,796	12/11/16 12:00 AM	12/18/16 12:00 AM	7	12/14/16 12:00 PM	12/20/16 12:00 PM	6.00	\$22,774
15	12/24/2016	\$3,359	12/18/16 12:00 AM	12/25/16 12:00 AM	7	12/21/16 12:00 PM	12/28/16 12:00 PM	7.00	\$23,514
16	12/31/2016	\$4,649	12/25/16 12:00 AM	1/1/17 12:00 AM	7	12/28/16 12:00 PM	1/4/17 12:00 PM	7.00	\$32,544
17									
18		<u>\$51,968</u>						6.86	<u>\$356,467</u>
19									
20									
21	<u>Semi Monthly</u>								
22									
23	10/15/2016	\$1,494	10/1/16 12:00 AM	10/16/16 12:00 AM	15	10/8/16 12:00 PM	10/5/16 12:00 PM	-3.00	-\$4,482
24	10/31/2016	\$1,370	10/16/16 12:00 AM	11/1/16 12:00 AM	16	10/24/16 12:00 AM	10/21/16 12:00 PM	-2.50	-\$3,425
25	11/15/2016	\$1,494	11/1/16 12:00 AM	11/16/16 12:00 AM	15	11/8/16 12:00 PM	11/9/16 12:00 PM	1.00	\$1,494
26	11/30/2016	\$1,758	11/16/16 12:00 AM	12/1/16 12:00 AM	15	11/23/16 12:00 PM	11/21/16 12:00 PM	-2.00	-\$3,517
27	12/15/2016	\$1,732	12/1/16 12:00 AM	12/16/16 12:00 AM	15	12/8/16 12:00 PM	12/7/16 12:00 PM	-1.00	-\$1,732
28	12/31/2016	\$1,338	12/16/16 12:00 AM	1/1/17 12:00 AM	16	12/24/16 12:00 AM	12/20/16 12:00 PM	-3.50	-\$4,682
29									
30		<u>\$9,186</u>						-1.78	<u>-\$16,343</u>
31									
32									
33	<u>Incentive Pay</u>								
34	February 2017								
35	Incentive Pay-Weekly	\$597	1/1/16 12:00 AM	1/1/17 12:00 AM	366	7/2/16 12:00 AM	2/7/17 12:00 PM	220.50	\$131,694
36	Incentive Pay-Salary	\$3,964	1/1/16 12:00 AM	1/1/17 12:00 AM	366	7/2/16 12:00 AM	2/7/17 12:00 PM	220.50	\$873,961
37		<u>\$4,561</u>						220.50	<u>\$1,005,654</u>
38									
39									
40	Total	<u>\$65,715</u>							

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Line No	Payroll Description	Amount	Service Period Start	End	Total Days	Midpoint Service Period	Wire Transfer Date	(Lead) Lag Days	Weighted Dollar Days
1	<u>Weekly</u>								
2									
3	10/1/2016	\$838	9/25/16 12:00 AM	10/2/16 12:00 AM	7	9/28/16 12:00 PM	10/5/16 12:00 PM	7.00	\$5,866
4	10/8/2016	\$872	10/2/16 12:00 AM	10/9/16 12:00 AM	7	10/5/16 12:00 PM	10/12/16 12:00 PM	7.00	\$6,107
5	10/15/2016	\$891	10/9/16 12:00 AM	10/16/16 12:00 AM	7	10/12/16 12:00 PM	10/19/16 12:00 PM	7.00	\$6,235
6	10/22/2016	\$868	10/16/16 12:00 AM	10/23/16 12:00 AM	7	10/19/16 12:00 PM	10/26/16 12:00 PM	7.00	\$6,078
7	10/29/2016	\$870	10/23/16 12:00 AM	10/30/16 12:00 AM	7	10/26/16 12:00 PM	11/2/16 12:00 PM	7.00	\$6,092
8	11/5/2016	\$889	10/30/16 12:00 AM	11/6/16 12:00 AM	7	11/2/16 12:00 PM	11/9/16 12:00 PM	7.00	\$6,220
9	11/12/2016	\$869	11/6/16 12:00 AM	11/13/16 12:00 AM	7	11/9/16 12:00 PM	11/16/16 12:00 PM	7.00	\$6,082
10	11/19/2016	\$822	11/13/16 12:00 AM	11/20/16 12:00 AM	7	11/16/16 12:00 PM	11/22/16 12:00 PM	6.00	\$4,933
11	11/26/2016	\$778	11/20/16 12:00 AM	11/27/16 12:00 AM	7	11/23/16 12:00 PM	11/30/16 12:00 PM	7.00	\$5,444
12	12/3/2016	\$858	11/27/16 12:00 AM	12/4/16 12:00 AM	7	11/30/16 12:00 PM	12/7/16 12:00 PM	7.00	\$6,004
13	12/10/2016	\$859	12/4/16 12:00 AM	12/11/16 12:00 AM	7	12/7/16 12:00 PM	12/14/16 12:00 PM	7.00	\$6,011
14	12/17/2016	\$954	12/11/16 12:00 AM	12/18/16 12:00 AM	7	12/14/16 12:00 PM	12/20/16 12:00 PM	6.00	\$5,724
15	12/24/2016	\$844	12/18/16 12:00 AM	12/25/16 12:00 AM	7	12/21/16 12:00 PM	12/28/16 12:00 PM	7.00	\$5,908
16	12/31/2016	\$1,087	12/25/16 12:00 AM	1/1/17 12:00 AM	7	12/28/16 12:00 PM	1/4/17 12:00 PM	7.00	\$7,611
17									
18		<u>\$12,299</u>						6.86	<u>\$84,315</u>
19									
20									
21	<u>Semi Monthly</u>								
22									
23	10/15/2016	\$428	10/1/16 12:00 AM	10/16/16 12:00 AM	15	10/8/16 12:00 PM	10/5/16 12:00 PM	-3.00	-\$1,283
24	10/31/2016	\$399	10/16/16 12:00 AM	11/1/16 12:00 AM	16	10/24/16 12:00 AM	10/21/16 12:00 PM	-2.50	-\$997
25	11/15/2016	\$428	11/1/16 12:00 AM	11/16/16 12:00 AM	15	11/8/16 12:00 PM	11/9/16 12:00 PM	1.00	\$428
26	11/30/2016	\$530	11/16/16 12:00 AM	12/1/16 12:00 AM	15	11/23/16 12:00 PM	11/21/16 12:00 PM	-2.00	-\$1,060
27	12/15/2016	\$524	12/1/16 12:00 AM	12/16/16 12:00 AM	15	12/8/16 12:00 PM	12/7/16 12:00 PM	-1.00	-\$524
28	12/31/2016	\$403	12/16/16 12:00 AM	1/1/17 12:00 AM	16	12/24/16 12:00 AM	12/20/16 12:00 PM	-3.50	-\$1,412
29									
30		<u>\$2,711</u>						-1.79	<u>-\$4,847</u>
31									
32									
33	<u>Incentive Pay</u>								
34	February 2017								
35	Incentive Pay-Weekly	\$140	1/1/16 12:00 AM	1/1/17 12:00 AM	366	7/2/16 12:00 AM	2/7/17 12:00 PM	220.50	\$30,799
36	Incentive Pay-Salary	\$927	1/1/16 12:00 AM	1/1/17 12:00 AM	366	7/2/16 12:00 AM	2/7/17 12:00 PM	220.50	\$204,395
37		<u>\$1,067</u>						220.50	<u>\$235,194</u>
38									
39									
40	Total	<u>\$16,076</u>							

Northern Utilities, Inc. - New Hampshire Division
Calculation of Payroll Lag Days
12 Months Ended Dec 31, 2016
FUI Employer

5/18/2017
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Line No	Payroll Description	Net Payroll Amount	Service Period Start	End	Total Days	Midpoint Service Period	Wire Transfer Date	(Lead) Lag Days	Weighted Dollar Days
1	<u>Weekly</u>								
2									
3	10/1/2016	\$0	9/25/16 12:00 AM	10/2/16 12:00 AM	7	9/28/16 12:00 PM	10/5/16 12:00 PM	7.00	\$0
4	10/8/2016	\$0	10/2/16 12:00 AM	10/9/16 12:00 AM	7	10/5/16 12:00 PM	10/12/16 12:00 PM	7.00	\$0
5	10/15/2016	\$0	10/9/16 12:00 AM	10/16/16 12:00 AM	7	10/12/16 12:00 PM	10/19/16 12:00 PM	7.00	\$0
6	10/22/2016	\$0	10/16/16 12:00 AM	10/23/16 12:00 AM	7	10/19/16 12:00 PM	10/26/16 12:00 PM	7.00	\$0
7	10/29/2016	\$0	10/23/16 12:00 AM	10/30/16 12:00 AM	7	10/26/16 12:00 PM	11/2/16 12:00 PM	7.00	\$0
8	11/5/2016	\$0	10/30/16 12:00 AM	11/6/16 12:00 AM	7	11/2/16 12:00 PM	11/9/16 12:00 PM	7.00	\$0
9	11/12/2016	\$0	11/6/16 12:00 AM	11/13/16 12:00 AM	7	11/9/16 12:00 PM	11/16/16 12:00 PM	7.00	\$0
10	11/19/2016	\$0	11/13/16 12:00 AM	11/20/16 12:00 AM	7	11/16/16 12:00 PM	11/22/16 12:00 PM	6.00	\$0
11	11/26/2016	\$0	11/20/16 12:00 AM	11/27/16 12:00 AM	7	11/23/16 12:00 PM	11/30/16 12:00 PM	7.00	\$0
12	12/3/2016	\$0	11/27/16 12:00 AM	12/4/16 12:00 AM	7	11/30/16 12:00 PM	12/7/16 12:00 PM	7.00	\$0
13	12/10/2016	\$0	12/4/16 12:00 AM	12/11/16 12:00 AM	7	12/7/16 12:00 PM	12/14/16 12:00 PM	7.00	\$0
14	12/17/2016	\$0	12/11/16 12:00 AM	12/18/16 12:00 AM	7	12/14/16 12:00 PM	12/20/16 12:00 PM	6.00	\$0
15	12/24/2016	\$0	12/18/16 12:00 AM	12/25/16 12:00 AM	7	12/21/16 12:00 PM	12/28/16 12:00 PM	7.00	\$0
16	12/31/2016	\$449	12/25/16 12:00 AM	1/1/17 12:00 AM	7	12/28/16 12:00 PM	1/4/17 12:00 PM	7.00	\$3,140
17									
18		<u>\$449</u>						7.00	<u>\$3,140</u>
19									
20									
21	<u>Semi Monthly</u>								
22									
23	10/15/2016	\$0	10/1/16 12:00 AM	10/16/16 12:00 AM	15	10/8/16 12:00 PM	10/5/16 12:00 PM	-3.00	\$0
24	10/31/2016	\$0	10/16/16 12:00 AM	11/1/16 12:00 AM	16	10/24/16 12:00 AM	10/21/16 12:00 PM	-2.50	\$0
25	11/15/2016	\$0	11/1/16 12:00 AM	11/16/16 12:00 AM	15	11/8/16 12:00 PM	11/9/16 12:00 PM	1.00	\$0
26	11/30/2016	\$0	11/16/16 12:00 AM	12/1/16 12:00 AM	15	11/23/16 12:00 PM	11/21/16 12:00 PM	-2.00	\$0
27	12/15/2016	\$0	12/1/16 12:00 AM	12/16/16 12:00 AM	15	12/8/16 12:00 PM	12/7/16 12:00 PM	-1.00	\$0
28	12/31/2016	\$0	12/16/16 12:00 AM	1/1/17 12:00 AM	16	12/24/16 12:00 AM	12/20/16 12:00 PM	-3.50	\$0
29									
30		<u>\$0</u>						0.00	<u>\$0</u>
31									
32									
33	<u>Incentive Pay</u>								
34	February 2017								
35	Incentive Pay-Weekly	\$32	1/1/16 12:00 AM	1/1/17 12:00 AM	366	7/2/16 12:00 AM	2/7/17 12:00 PM	220.50	\$7,096
36	Incentive Pay-Salary	\$0	1/1/16 12:00 AM	1/1/17 12:00 AM	366	7/2/16 12:00 AM	2/7/17 12:00 PM	220.50	\$0
37		<u>\$32</u>						220.50	<u>\$7,096</u>
38									
39									
40	Total	<u>\$481</u>							

Northern Utilities, Inc. - New Hampshire Division
Calculation of Payroll Lag Days
12 Months Ended Dec 31, 2016
SUI Employer

5/18/2017
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Line No	Payroll Description	Amount	Service Period Start	End	Total Days	Midpoint Service Period	Wire Transfer Date	(Lead) Lag Days	Weighted Dollar Days
1	<u>Weekly</u>								
2									
3	10/1/2016	\$0	9/25/16 12:00 AM	10/2/16 12:00 AM	7	9/28/16 12:00 PM	10/5/16 12:00 PM	7.00	\$0
4	10/8/2016	\$0	10/2/16 12:00 AM	10/9/16 12:00 AM	7	10/5/16 12:00 PM	10/12/16 12:00 PM	7.00	\$0
5	10/15/2016	\$0	10/9/16 12:00 AM	10/16/16 12:00 AM	7	10/12/16 12:00 PM	10/19/16 12:00 PM	7.00	\$0
6	10/22/2016	\$0	10/16/16 12:00 AM	10/23/16 12:00 AM	7	10/19/16 12:00 PM	10/26/16 12:00 PM	7.00	\$0
7	10/29/2016	\$0	10/23/16 12:00 AM	10/30/16 12:00 AM	7	10/26/16 12:00 PM	11/2/16 12:00 PM	7.00	\$0
8	11/5/2016	\$0	10/30/16 12:00 AM	11/6/16 12:00 AM	7	11/2/16 12:00 PM	11/9/16 12:00 PM	7.00	\$0
9	11/12/2016	\$0	11/6/16 12:00 AM	11/13/16 12:00 AM	7	11/9/16 12:00 PM	11/16/16 12:00 PM	7.00	\$0
10	11/19/2016	\$0	11/13/16 12:00 AM	11/20/16 12:00 AM	7	11/16/16 12:00 PM	11/22/16 12:00 PM	6.00	\$0
11	11/26/2016	\$0	11/20/16 12:00 AM	11/27/16 12:00 AM	7	11/23/16 12:00 PM	11/30/16 12:00 PM	7.00	\$0
12	12/3/2016	\$0	11/27/16 12:00 AM	12/4/16 12:00 AM	7	11/30/16 12:00 PM	12/7/16 12:00 PM	7.00	\$0
13	12/10/2016	\$0	12/4/16 12:00 AM	12/11/16 12:00 AM	7	12/7/16 12:00 PM	12/14/16 12:00 PM	7.00	\$0
14	12/17/2016	\$0	12/11/16 12:00 AM	12/18/16 12:00 AM	7	12/14/16 12:00 PM	12/20/16 12:00 PM	6.00	\$0
15	12/24/2016	\$0	12/18/16 12:00 AM	12/25/16 12:00 AM	7	12/21/16 12:00 PM	12/28/16 12:00 PM	7.00	\$0
16	12/31/2016	\$78	12/25/16 12:00 AM	1/1/17 12:00 AM	7	12/28/16 12:00 PM	1/4/17 12:00 PM	7.00	\$545
17									
18		<u>\$78</u>						7.00	<u>\$545</u>
19									
20									
21	<u>Semi Monthly</u>								
22									
23	10/15/2016	\$0	10/1/16 12:00 AM	10/16/16 12:00 AM	15	10/8/16 12:00 PM	10/5/16 12:00 PM	-3.00	\$0
24	10/31/2016	\$0	10/16/16 12:00 AM	11/1/16 12:00 AM	16	10/24/16 12:00 AM	10/21/16 12:00 PM	-2.50	\$0
25	11/15/2016	\$0	11/1/16 12:00 AM	11/16/16 12:00 AM	15	11/8/16 12:00 PM	11/9/16 12:00 PM	1.00	\$0
26	11/30/2016	\$0	11/16/16 12:00 AM	12/1/16 12:00 AM	15	11/23/16 12:00 PM	11/21/16 12:00 PM	-2.00	\$0
27	12/15/2016	\$0	12/1/16 12:00 AM	12/16/16 12:00 AM	15	12/8/16 12:00 PM	12/7/16 12:00 PM	-1.00	\$0
28	12/31/2016	\$0	12/16/16 12:00 AM	1/1/17 12:00 AM	16	12/24/16 12:00 AM	12/20/16 12:00 PM	-3.50	\$0
29									
30		<u>\$0</u>						0.00	<u>\$0</u>
31									
32									
33	<u>Incentive Pay</u>								
34	February 2017								
35	Incentive Pay-Weekly	\$10	1/1/16 12:00 AM	1/1/17 12:00 AM	366	7/2/16 12:00 AM	2/7/17 12:00 PM	220.50	\$2,123
36	Incentive Pay-Salary	\$2	1/1/16 12:00 AM	1/1/17 12:00 AM	366	7/2/16 12:00 AM	2/7/17 12:00 PM	220.50	\$348
37		<u>\$11</u>						220.50	<u>\$2,472</u>
38									
39									
40	Total	<u>\$89</u>							

Northern Utilities, Inc. - New Hampshire Division
Calculation of Pension & Benefits Lead Lag Days
12 Months Ended Dec 31, 2016
Summary of Employee Benefits Acct 926

5/18/2017
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Line No	Description of Benefit	Amount Expensed	(Lead) Lag Days	Weighted Dollar Days
1	Empl Pension Fund Services	\$6,491	100.41	\$651,725
2	Cap Employee Pension 410K	\$150,327	9.94	\$1,493,975
3	401K Capitalized	-\$67,572	9.94	-\$671,542
4	Cap Health Insurance Medical Only	\$974,113	84.33	\$82,149,390
5	Health Ins - Emp Contr - Medical Only	-\$127,154	84.33	-\$10,723,181
6	Health Insurance - Drug Subsidy	-\$16,462	-50.30	\$827,997
7	Cap Health Insurance NU-NH (Union)	\$0		\$0
8	Health Ins Union - Emp Contr - Medical Only	\$0		\$0
9	Cap Dental Insurance	\$41,440	84.33	\$3,494,719
10	Dental Insurance - Emp Contribution	-\$10,968	84.33	-\$924,961
11	Vision	\$6,068	37.91	\$229,992
12	Vision - Employee Contr	-\$2,223	37.91	-\$84,259
13	Cap Empl Benefit - Life Insurance	\$13,564	2.14	\$29,071
14	Cap AD&D Insurance	\$1,550	2.16	\$3,346
15	Cap LTD Insurance	\$17,685	6.68	\$118,055
16	Employee Benefit Accrual Adj	-\$12,490	81.84	-\$1,022,145
17	Benefit Cost Capitalized	-\$473,962	81.84	-\$38,787,863
18	Empl Benefits Other	\$37,758	39.57	\$1,493,898
19				
20	Total Employee Benefits	<u>\$538,165</u>		<u>\$38,278,218</u>
21				
22	Total Base Rate Employee Benefits	<u>\$538,165</u>	71.13	<u>\$38,278,218</u>
23				
24	Total 401k used for Capitalized Items	<u>\$150,327</u>	9.94	<u>\$1,493,975</u>
25				
26	Total Direct Benefits used for Capitalized Items	<u>\$1,048,352</u>	81.84	<u>\$85,794,581</u>
27				
28				
29	Health & Dental Lags	<u>\$860,969</u>	86.91	<u>\$74,823,964</u>
30				
31				
32	SFAS 106 - PBOP Expense	\$641,454	22.00	\$14,112,036
33	SFAS 106 PBOP Cost Capitalized	-\$288,334	22.00	-\$6,343,360
34	Total	<u>\$353,120</u>	<u>22.00</u>	<u>\$7,768,676</u>
35				
36	SFAS 106 - PBOP Expense - USC Alloc	\$378,986	40.44	\$15,327,038
37	SFAS 106 PBOP Cost Capitalized - USC Alloc	-\$118,168	40.44	-\$4,778,977
38	Total	<u>\$260,818</u>	<u>40.44</u>	<u>\$10,548,061</u>
39				
40				

Northern Utilities, Inc. - New Hampshire Division
Pensions & Benefits Calculation of (Lead) Lag
Empl Pension Fund Services
12 Months Ended Dec 31, 2016

5/18/2017
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Acct: 30-40-03-00-9261000

Line No	Vendor	Expense Amount	Service From	Service To	Total Days	Mid-Point Calculation Date	Payment Date	(Lead) Lag Days	Weighted Dollar Days
1									
2	JOHN HANCOCK RETIREMENT PLAN SERVICES	\$913	10/1/15 12:00 AM	1/1/16 12:00 AM	92	11/16/15 12:00 AM	2/4/16 12:00 PM	80.50	\$73,531
3	TRANSAMERICA	\$675	10/1/15 12:00 AM	1/1/16 12:00 AM	92	11/16/15 12:00 AM	3/24/16 12:00 PM	129.50	\$87,413
4	JOHN HANCOCK RETIREMENT PLAN SERVICES	\$756	1/1/16 12:00 AM	4/1/16 12:00 AM	91	2/15/16 12:00 PM	5/26/16 12:00 PM	101.00	\$76,329
5	TRANSAMERICA	\$675	1/1/16 12:00 AM	4/1/16 12:00 AM	91	2/15/16 12:00 PM	6/9/16 12:00 PM	115.00	\$77,625
6	JOHN HANCOCK RETIREMENT PLAN SERVICES	\$1,077	4/1/16 12:00 AM	7/1/16 12:00 AM	91	5/16/16 12:00 PM	8/11/16 12:00 PM	87.00	\$93,730
7	TRANSAMERICA	\$675	4/1/16 12:00 AM	7/1/16 12:00 AM	91	5/16/16 12:00 PM	8/18/16 12:00 PM	94.00	\$63,450
8	JOHN HANCOCK RETIREMENT PLAN SERVICES	\$1,044	7/1/16 12:00 AM	10/1/16 12:00 AM	92	8/16/16 12:00 AM	11/17/16 12:00 PM	93.50	\$97,635
9	TRANSAMERICA	\$675	7/1/16 12:00 AM	10/1/16 12:00 AM	92	8/16/16 12:00 AM	12/15/16 12:00 PM	121.50	\$82,013
10									
11									
12									
13									
14									
15									
16		<u>\$6,491</u>						100.41	<u>\$651,725</u>
17									
18									
19									
20									
21									

Northern Utilities, Inc. - New Hampshire Division
Pensions & Benefits Calculation of (Lead) Lag
Employee Pension 410K
12 Months Ended Dec 31, 2016

5/18/2017
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Acct: 30-40-03-00-9260100

Line No	Month	Expense Amount	Service From	Service To	Total Days	(Lead) Lag Days	Weighted Dollar Days
1							
2	January	\$14,091	1/1/16 12:00 AM	2/1/16 12:00 AM	31	9.94	\$140,037
3	February	\$12,263	2/1/16 12:00 AM	3/1/16 12:00 AM	29	9.94	\$121,876
4	March	\$14,050	3/1/16 12:00 AM	4/1/16 12:00 AM	31	9.94	\$139,634
5	April	\$11,030	4/1/16 12:00 AM	5/1/16 12:00 AM	30	9.94	\$109,613
6	May	\$11,606	5/1/16 12:00 AM	6/1/16 12:00 AM	31	9.94	\$115,343
7	June	\$14,206	6/1/16 12:00 AM	7/1/16 12:00 AM	30	9.94	\$141,185
8	July	\$12,316	7/1/16 12:00 AM	8/1/16 12:00 AM	31	9.94	\$122,395
9	August	\$11,868	8/1/16 12:00 AM	9/1/16 12:00 AM	31	9.94	\$117,944
10	September	\$13,939	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9.94	\$138,527
11	October	\$11,397	10/1/16 12:00 AM	11/1/16 12:00 AM	31	9.94	\$113,268
12	November	\$11,410	11/1/16 12:00 AM	12/1/16 12:00 AM	30	9.94	\$113,393
13	December	<u>\$12,151</u>	12/1/16 12:00 AM	1/1/17 12:00 AM	31	9.94	<u>\$120,758</u>
14							
15		<u><u>\$150,327</u></u>			<u><u>366</u></u>	9.94	<u><u>\$1,493,975</u></u>
16							
17							
18							
19							
20	Payments to New York Life for 401k - employee match						
21							
22	Lag Days are from Non ADP Payroll Lead Lag.						
23							
24							
25							
26							
27							
28							
29							
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44							
45							

Northern Utilities, Inc. - New Hampshire Division
Pensions & Benefits Calculation of (Lead) Lag
401K Capitalized
12 Months Ended Dec 31, 2016

5/18/2017
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Acct: **30-40-10-00-9260101**

Line No	Month	Expense Amount	Service From	Service To	Total Days	(Lead) Lag Days	Weighted Dollar Days
1							
2	January	-\$6,334	1/1/16 12:00 AM	2/1/16 12:00 AM	31	9.94	-\$62,948
3	February	-\$5,513	2/1/16 12:00 AM	3/1/16 12:00 AM	29	9.94	-\$54,786
4	March	-\$6,315	3/1/16 12:00 AM	4/1/16 12:00 AM	31	9.94	-\$62,761
5	April	-\$4,958	4/1/16 12:00 AM	5/1/16 12:00 AM	30	9.94	-\$49,270
6	May	-\$5,217	5/1/16 12:00 AM	6/1/16 12:00 AM	31	9.94	-\$51,850
7	June	-\$6,386	6/1/16 12:00 AM	7/1/16 12:00 AM	30	9.94	-\$63,461
8	July	-\$5,536	7/1/16 12:00 AM	8/1/16 12:00 AM	31	9.94	-\$55,018
9	August	-\$5,334	8/1/16 12:00 AM	9/1/16 12:00 AM	31	9.94	-\$53,012
10	September	-\$6,266	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9.94	-\$62,270
11	October	-\$5,124	10/1/16 12:00 AM	11/1/16 12:00 AM	31	9.94	-\$50,920
12	November	-\$5,129	11/1/16 12:00 AM	12/1/16 12:00 AM	30	9.94	-\$50,971
13	December	-\$5,461	12/1/16 12:00 AM	1/1/17 12:00 AM	31	9.94	-\$54,276
14							
15		<u>-\$67,572</u>			<u>366</u>	9.94	<u>-\$671,542</u>
16							
17							
18							
19							
20	Capitalization of 401 benefits						
21							
22	Lag Days are from Non ADP Payroll Lead Lag.						
23							
24							
25							

Northern Utilities, Inc. - New Hampshire Division
Pensions & Benefits Calculation of (Lead) Lag
Health Insurance Medical Only
12 Months Ended Dec 31, 2016

5/18/2017
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Acct: **30-40-03-00-9260300**

Line No	Month	Expense Amount	Service From	Service To	Total Days	(Lead) Lag Days	Weighted Dollar Days
1							
2	January	\$50,721	1/1/16 12:00 AM	2/1/16 12:00 AM	31	84.33	\$4,277,424
3	February	\$55,107	2/1/16 12:00 AM	3/1/16 12:00 AM	29	84.33	\$4,647,313
4	March	\$50,286	3/1/16 12:00 AM	4/1/16 12:00 AM	31	84.33	\$4,240,724
5	April	\$55,107	4/1/16 12:00 AM	5/1/16 12:00 AM	30	84.33	\$4,647,313
6	May	\$37,908	5/1/16 12:00 AM	6/1/16 12:00 AM	31	84.33	\$3,196,884
7	June	\$57,441	6/1/16 12:00 AM	7/1/16 12:00 AM	30	84.33	\$4,844,132
8	July	\$55,107	7/1/16 12:00 AM	8/1/16 12:00 AM	31	84.33	\$4,647,313
9	August	\$55,107	8/1/16 12:00 AM	9/1/16 12:00 AM	31	84.33	\$4,647,313
10	September	\$44,193	9/1/16 12:00 AM	10/1/16 12:00 AM	30	84.33	\$3,726,869
11	October	\$55,107	10/1/16 12:00 AM	11/1/16 12:00 AM	31	84.33	\$4,647,313
12	November	\$402,923	11/1/16 12:00 AM	12/1/16 12:00 AM	30	84.33	\$33,979,480
13	December	\$55,107	12/1/16 12:00 AM	1/1/17 12:00 AM	31	84.33	\$4,647,313
14							
15		<u>\$974,113</u>			<u>366</u>	84.33	<u>\$82,149,390</u>
16							
17							
18							
19							
20	Health Insurance Accruals						
21							
22	Lag Days are from Non ADP Payroll Lead Lag.						
23							
24							

Northern Utilities, Inc. - New Hampshire Division
Pensions & Benefits Calculation of (Lead) Lag
Health Ins - Emp Contr - Medical Only
12 Months Ended Dec 31, 2016

5/18/2017
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Acct: **30-40-03-00-9260301**

Line No	Month	Expense Amount	Service From	Service To	Total Days	(Lead) Lag Days	Weighted Dollar Days
1							
2	January	-\$10,459	1/1/16 12:00 AM	2/1/16 12:00 AM	31	84.33	-\$882,046
3	February	-\$9,499	2/1/16 12:00 AM	3/1/16 12:00 AM	29	84.33	-\$801,097
4	March	-\$11,363	3/1/16 12:00 AM	4/1/16 12:00 AM	31	84.33	-\$958,307
5	April	-\$9,563	4/1/16 12:00 AM	5/1/16 12:00 AM	30	84.33	-\$806,459
6	May	-\$10,502	5/1/16 12:00 AM	6/1/16 12:00 AM	31	84.33	-\$885,663
7	June	-\$11,481	6/1/16 12:00 AM	7/1/16 12:00 AM	30	84.33	-\$968,245
8	July	-\$9,944	7/1/16 12:00 AM	8/1/16 12:00 AM	31	84.33	-\$838,605
9	August	-\$11,453	8/1/16 12:00 AM	9/1/16 12:00 AM	31	84.33	-\$965,828
10	September	-\$11,212	9/1/16 12:00 AM	10/1/16 12:00 AM	30	84.33	-\$945,567
11	October	-\$9,871	10/1/16 12:00 AM	11/1/16 12:00 AM	31	84.33	-\$832,443
12	November	-\$10,974	11/1/16 12:00 AM	12/1/16 12:00 AM	30	84.33	-\$925,476
13	December	-\$10,831	12/1/16 12:00 AM	1/1/17 12:00 AM	31	84.33	-\$913,443
14							
15		<u>-\$127,154</u>			<u>366</u>	84.33	<u>-\$10,723,181</u>
16							
17							
18							
19							
20	Employee Contributions (through withholdings) for Medical						
21							
22	Lag Days are from Non ADP Payroll Lead Lag.						
23							
24							
25							

Northern Utilities, Inc. - New Hampshire Division
Pensions & Benefits Calculation of (Lead) Lag
Health Insurance - Drug Subsidy
12 Months Ended Dec 31, 2016

5/18/2017
12:10:27 PM

Acct: 30-40-03-00-9260303

Line No	Month	Expense Amount	Service From	Service To	Total Days	Mid-Point Calculation Date	Payment Date	(Lead) Lag Days	Weighted Dollar Days
1									
2	January	-\$1,200	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	5/6/16 12:00 PM	111.00	-\$133,156
3	February	-\$1,200	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	5/6/16 12:00 PM	81.00	-\$97,168
4	March	-\$1,200	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	5/6/16 12:00 PM	51.00	-\$61,180
5	April	-\$1,200	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	5/6/16 12:00 PM	20.50	-\$24,592
6	May	-\$3,266	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	5/6/16 12:00 PM	(10.00)	\$32,662
7	June	-\$1,200	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	5/6/16 12:00 PM	(40.50)	\$48,584
8	July	-\$1,200	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM	5/6/16 12:00 PM	(71.00)	\$85,172
9	August	-\$1,200	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM	5/6/16 12:00 PM	(102.00)	\$122,359
10	September	-\$1,200	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM	5/6/16 12:00 PM	(132.50)	\$158,947
11	October	-\$1,200	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	5/6/16 12:00 PM	(163.00)	\$195,535
12	November	-\$1,200	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	5/6/16 12:00 PM	(193.50)	\$232,123
13	December	-\$1,200	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	5/6/16 12:00 PM	(224.00)	\$268,710
14									
15		<u>-\$16,462</u>			<u>366</u>			(50.30)	<u>\$827,997</u>

General Accounting entries to accrue for annual drug subsidy receipts

Check is received for the prior calendar year.

Northern Utilities, Inc. - New Hampshire Division
Pensions & Benefits Calculation of (Lead) Lag
Health Insurance NU-NH (Union)
12 Months Ended Dec 31, 2016

5/18/2017
12:10:27 PM

Acct:

Line No	Month	Expense Amount	Service From	Service To	Total Days	(Lead) Lag Days	Weighted Dollar Days
1							
2	January		1/1/16 12:00 AM	2/1/16 12:00 AM	31	84.33	\$0
3	February		2/1/16 12:00 AM	3/1/16 12:00 AM	29	84.33	\$0
4	March		3/1/16 12:00 AM	4/1/16 12:00 AM	31	84.33	\$0
5	April		4/1/16 12:00 AM	5/1/16 12:00 AM	30	84.33	\$0
6	May		5/1/16 12:00 AM	6/1/16 12:00 AM	31	84.33	\$0
7	June		6/1/16 12:00 AM	7/1/16 12:00 AM	30	84.33	\$0
8	July		7/1/16 12:00 AM	8/1/16 12:00 AM	31	84.33	\$0
9	August		8/1/16 12:00 AM	9/1/16 12:00 AM	31	84.33	\$0
10	September		9/1/16 12:00 AM	10/1/16 12:00 AM	30	84.33	\$0
11	October		10/1/16 12:00 AM	11/1/16 12:00 AM	31	84.33	\$0
12	November		11/1/16 12:00 AM	12/1/16 12:00 AM	30	84.33	\$0
13	December		12/1/16 12:00 AM	1/1/17 12:00 AM	31	84.33	\$0
14							
15		\$0			366	#DIV/0!	\$0
16							
17							
18							
19							
20	Health Insurance Accruals						
21							
22	Lag Days are from Non ADP Payroll Lead Lag.						
23							
24							

Northern Utilities, Inc. - New Hampshire Division
Pensions & Benefits Calculation of (Lead) Lag
Health Ins Union - Emp Contr - Medical Only
12 Months Ended Dec 31, 2016

5/18/2017
12:10:27 PM

Acct:

Line No	Month	Expense Amount	Service From	Service To	Total Days	(Lead) Lag Days	Weighted Dollar Days
1							
2	January		1/1/16 12:00 AM	2/1/16 12:00 AM	31	84.33	\$0
3	February		2/1/16 12:00 AM	3/1/16 12:00 AM	29	84.33	\$0
4	March		3/1/16 12:00 AM	4/1/16 12:00 AM	31	84.33	\$0
5	April		4/1/16 12:00 AM	5/1/16 12:00 AM	30	84.33	\$0
6	May		5/1/16 12:00 AM	6/1/16 12:00 AM	31	84.33	\$0
7	June		6/1/16 12:00 AM	7/1/16 12:00 AM	30	84.33	\$0
8	July		7/1/16 12:00 AM	8/1/16 12:00 AM	31	84.33	\$0
9	August		8/1/16 12:00 AM	9/1/16 12:00 AM	31	84.33	\$0
10	September		9/1/16 12:00 AM	10/1/16 12:00 AM	30	84.33	\$0
11	October		10/1/16 12:00 AM	11/1/16 12:00 AM	31	84.33	\$0
12	November		11/1/16 12:00 AM	12/1/16 12:00 AM	30	84.33	\$0
13	December		12/1/16 12:00 AM	1/1/17 12:00 AM	31	84.33	\$0
14							
15		\$0			366	#DIV/0!	\$0
16							
17							
18							
19							
20	Employee Contributions (through withholdings) for Medical						
21							
22	Lag Days are from Non ADP Payroll Lead Lag.						
23							
24							

Northern Utilities, Inc. - New Hampshire Division
Pensions & Benefits Calculation of (Lead) Lag
Dental Insurance
12 Months Ended Dec 31, 2016

5/18/2017
12:10:27 PM

Acct: **30-40-03-00-9261200**

Line No	Month	Expense Amount	Service From	Service To	Total Days	(Lead) Lag Days	Weighted Dollar Days
1							
2	January	\$646	1/1/16 12:00 AM	2/1/16 12:00 AM	31	84.33	\$54,493
3	February	\$4,411	2/1/16 12:00 AM	3/1/16 12:00 AM	29	84.33	\$372,014
4	March	\$4,083	3/1/16 12:00 AM	4/1/16 12:00 AM	31	84.33	\$344,298
5	April	\$4,411	4/1/16 12:00 AM	5/1/16 12:00 AM	30	84.33	\$372,014
6	May	\$4,411	5/1/16 12:00 AM	6/1/16 12:00 AM	31	84.33	\$372,014
7	June	\$1,269	6/1/16 12:00 AM	7/1/16 12:00 AM	30	84.33	\$106,997
8	July	\$4,411	7/1/16 12:00 AM	8/1/16 12:00 AM	31	84.33	\$372,014
9	August	\$4,411	8/1/16 12:00 AM	9/1/16 12:00 AM	31	84.33	\$372,014
10	September	\$152	9/1/16 12:00 AM	10/1/16 12:00 AM	30	84.33	\$12,817
11	October	\$4,411	10/1/16 12:00 AM	11/1/16 12:00 AM	31	84.33	\$372,014
12	November	\$4,411	11/1/16 12:00 AM	12/1/16 12:00 AM	30	84.33	\$372,014
13	December	<u>\$4,411</u>	12/1/16 12:00 AM	1/1/17 12:00 AM	31	84.33	<u>\$372,014</u>
14							
15		<u><u>\$41,440</u></u>				84.33	<u><u>\$3,494,719</u></u>
16							
17							
18							
19							
20	Dental Insurance Expense						
21							
22	Lag Days are from Non ADP Payroll Lead Lag.						
23							
24							

Northern Utilities, Inc. - New Hampshire Division
Pensions & Benefits Calculation of (Lead) Lag
Dental Insurance - Emp Contribution
12 Months Ended Dec 31, 2016

5/18/2017
12:10:27 PM

Acct: **30-40-03-00-9261201**

Line No	Month	Expense Amount	Service From	Service To	Total Days	(Lead) Lag Days	Weighted Dollar Days
1							
2	January	-\$900	1/1/16 12:00 AM	2/1/16 12:00 AM	31	84.33	-\$75,930
3	February	-\$831	2/1/16 12:00 AM	3/1/16 12:00 AM	29	84.33	-\$70,113
4	March	-\$944	3/1/16 12:00 AM	4/1/16 12:00 AM	31	84.33	-\$79,582
5	April	-\$835	4/1/16 12:00 AM	5/1/16 12:00 AM	30	84.33	-\$70,408
6	May	-\$909	5/1/16 12:00 AM	6/1/16 12:00 AM	31	84.33	-\$76,699
7	June	-\$968	6/1/16 12:00 AM	7/1/16 12:00 AM	30	84.33	-\$81,605
8	July	-\$878	7/1/16 12:00 AM	8/1/16 12:00 AM	31	84.33	-\$74,058
9	August	-\$1,004	8/1/16 12:00 AM	9/1/16 12:00 AM	31	84.33	-\$84,650
10	September	-\$950	9/1/16 12:00 AM	10/1/16 12:00 AM	30	84.33	-\$80,094
11	October	-\$873	10/1/16 12:00 AM	11/1/16 12:00 AM	31	84.33	-\$73,603
12	November	-\$958	11/1/16 12:00 AM	12/1/16 12:00 AM	30	84.33	-\$80,813
13	December	-\$918	12/1/16 12:00 AM	1/1/17 12:00 AM	31	84.33	-\$77,406
14							
15		-\$10,968				84.33	-\$924,961
16							
17							
18							
19							
20							
21							
22	Lag Days are from Non ADP Payroll Lead Lag.						
23							
24	Employee contributions (through withholdings) for Dental Insurance						
25							
26	The employee contribution toward vision insurance is an offset to the expense.						
27							
28							

Northern Utilities, Inc. - New Hampshire Division
Pensions & Benefits Calculation of (Lead) Lag
Vision

5/18/2017
12:10:27 PM

Acct: 30-40-03-00-9262400

12 Months Ended Dec 31, 2016

Line No	Month	Expense Amount	Service From	Service To	Total Days	(Lead) Lag Days	Weighted Dollar Days
1							
2	January	\$222	1/1/16 12:00 AM	2/1/16 12:00 AM	31	37.91	\$8,422
3	February	\$1,045	2/1/16 12:00 AM	3/1/16 12:00 AM	29	37.91	\$39,606
4	March	\$69	3/1/16 12:00 AM	4/1/16 12:00 AM	31	37.91	\$2,615
5	April	\$444	4/1/16 12:00 AM	5/1/16 12:00 AM	30	37.91	\$16,845
6	May	\$1,138	5/1/16 12:00 AM	6/1/16 12:00 AM	31	37.91	\$43,135
7	June	\$253	6/1/16 12:00 AM	7/1/16 12:00 AM	30	37.91	\$9,580
8	July	\$69	7/1/16 12:00 AM	8/1/16 12:00 AM	31	37.91	\$2,607
9	August	\$675	8/1/16 12:00 AM	9/1/16 12:00 AM	31	37.91	\$25,604
10	September	\$741	9/1/16 12:00 AM	10/1/16 12:00 AM	30	37.91	\$28,099
11	October	\$237	10/1/16 12:00 AM	11/1/16 12:00 AM	31	37.91	\$9,001
12	November	\$864	11/1/16 12:00 AM	12/1/16 12:00 AM	30	37.91	\$32,761
13	December	<u>\$309</u>	12/1/16 12:00 AM	1/1/17 12:00 AM	31	37.91	<u>\$11,719</u>
14							
15		<u><u>\$6,068</u></u>				37.91	<u><u>\$229,992</u></u>
16							
17							
18							
19							
20	Vision expense						
21							
22	Lag Days are from Non ADP Payroll Lead Lag.						
23							
24	The employee contribution toward vision insurance is an offset to the expense.						
25							
26							

Northern Utilities, Inc. - New Hampshire Division
Pensions & Benefits Calculation of (Lead) Lag
Vision - Employee Contr
12 Months Ended Dec 31, 2016

5/18/2017
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Acct: 30-40-03-00-9262401

Line No	Month	Expense Amount	Service From	Service To	Total Days	(Lead) Lag Days	Weighted Dollar Days
1							
2	January	-\$177	1/1/16 12:00 AM	2/1/16 12:00 AM	31	37.91	-\$6,706
3	February	-\$165	2/1/16 12:00 AM	3/1/16 12:00 AM	29	37.91	-\$6,238
4	March	-\$192	3/1/16 12:00 AM	4/1/16 12:00 AM	31	37.91	-\$7,279
5	April	-\$166	4/1/16 12:00 AM	5/1/16 12:00 AM	30	37.91	-\$6,290
6	May	-\$181	5/1/16 12:00 AM	6/1/16 12:00 AM	31	37.91	-\$6,878
7	June	-\$197	6/1/16 12:00 AM	7/1/16 12:00 AM	30	37.91	-\$7,479
8	July	-\$178	7/1/16 12:00 AM	8/1/16 12:00 AM	31	37.91	-\$6,739
9	August	-\$203	8/1/16 12:00 AM	9/1/16 12:00 AM	31	37.91	-\$7,683
10	September	-\$199	9/1/16 12:00 AM	10/1/16 12:00 AM	30	37.91	-\$7,532
11	October	-\$178	10/1/16 12:00 AM	11/1/16 12:00 AM	31	37.91	-\$6,748
12	November	-\$196	11/1/16 12:00 AM	12/1/16 12:00 AM	30	37.91	-\$7,437
13	December	-\$191	12/1/16 12:00 AM	1/1/17 12:00 AM	31	37.91	-\$7,250
14							
15		-\$2,223				37.91	-\$84,259
16							
17							
18							
19							
20	Employee Contribution (through withholdings) for Vision coverage						
21							
22	Lag Days are from Non ADP Payroll Lead Lag.						
23							
24							

Northern Utilities, Inc. - New Hampshire Division
Pensions & Benefits Calculation of (Lead) Lag
Empl Benefit - Life Insurance
12 Months Ended Dec 31, 2016

5/18/2017
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Acct: 30-40-03-00-9260400

Line No	Month	Expense Amount	Service From	Service To	Total Days	(Lead) Lag Days	Weighted Dollar Days
1							
2	January	\$1,122	1/1/16 12:00 AM	2/1/16 12:00 AM	31	2.14	\$2,404
3	February	\$1,103	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2.14	\$2,364
4	March	\$1,103	3/1/16 12:00 AM	4/1/16 12:00 AM	31	2.14	\$2,364
5	April	\$0	4/1/16 12:00 AM	5/1/16 12:00 AM	30	2.14	\$0
6	May	\$2,204	5/1/16 12:00 AM	6/1/16 12:00 AM	31	2.14	\$4,724
7	June	\$1,158	6/1/16 12:00 AM	7/1/16 12:00 AM	30	2.14	\$2,481
8	July	\$1,161	7/1/16 12:00 AM	8/1/16 12:00 AM	31	2.14	\$2,489
9	August	\$1,161	8/1/16 12:00 AM	9/1/16 12:00 AM	31	2.14	\$2,489
10	September	\$1,140	9/1/16 12:00 AM	10/1/16 12:00 AM	30	2.14	\$2,444
11	October	\$1,137	10/1/16 12:00 AM	11/1/16 12:00 AM	31	2.14	\$2,438
12	November	\$1,137	11/1/16 12:00 AM	12/1/16 12:00 AM	30	2.14	\$2,438
13	December	<u>\$1,137</u>	12/1/16 12:00 AM	1/1/17 12:00 AM	31	2.14	<u>\$2,438</u>
14							
15		<u><u>\$13,564</u></u>				2.14	<u><u>\$29,071</u></u>
16							
17							
18							
19							
20	Life Insurance benefits						
21							
22	Lag Days are from Non ADP Payroll Lead Lag.						
23							
24							

Northern Utilities, Inc. - New Hampshire Division
Pensions & Benefits Calculation of (Lead) Lag
AD&D Insurance
12 Months Ended Dec 31, 2016

5/18/2017
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Acct: 30-40-03-00-9261300

Line No	Month	Expense Amount	Service From	Service To	Total Days	(Lead) Lag Days	Weighted Dollar Days
1							
2	January	\$128	1/1/16 12:00 AM	2/1/16 12:00 AM	31	2.16	\$277
3	February	\$126	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2.16	\$272
4	March	\$126	3/1/16 12:00 AM	4/1/16 12:00 AM	31	2.16	\$272
5	April	\$0	4/1/16 12:00 AM	5/1/16 12:00 AM	30	2.16	\$0
6	May	\$252	5/1/16 12:00 AM	6/1/16 12:00 AM	31	2.16	\$544
7	June	\$132	6/1/16 12:00 AM	7/1/16 12:00 AM	30	2.16	\$286
8	July	\$133	7/1/16 12:00 AM	8/1/16 12:00 AM	31	2.16	\$286
9	August	\$133	8/1/16 12:00 AM	9/1/16 12:00 AM	31	2.16	\$286
10	September	\$130	9/1/16 12:00 AM	10/1/16 12:00 AM	30	2.16	\$281
11	October	\$130	10/1/16 12:00 AM	11/1/16 12:00 AM	31	2.16	\$281
12	November	\$130	11/1/16 12:00 AM	12/1/16 12:00 AM	30	2.16	\$281
13	December	\$130	12/1/16 12:00 AM	1/1/17 12:00 AM	31	2.16	\$281
14							
15		<u>\$1,550</u>				2.16	<u>\$3,346</u>
16							
17							
18							
19							
20	Payments to LINA (Cigna Group Insurance)						
21							
22	Lag Days are from Non ADP Payroll Lead Lag.						
23							
24							

Northern Utilities, Inc. - New Hampshire Division
Pensions & Benefits Calculation of (Lead) Lag
LTD Insurance
12 Months Ended Dec 31, 2016

5/18/2017
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Acct: 30-40-03-00-9261400

Line No	Month	Expense Amount	Service From	Service To	Total Days	Mid-Point Calculation Date	Payment Date	(Lead) Lag Days	Weighted Dollar Days
1									
2	January	\$1,485	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	1/27/16 12:00 PM	11.00	\$16,339
3	February	\$1,485	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	2/29/16 12:00 PM	14.00	\$20,795
4	March	\$1,485	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	3/28/16 12:00 PM	12.00	\$17,824
5	April	\$0	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	5/2/16 12:00 PM	16.50	\$0
6	May	\$2,968	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	5/23/16 12:00 PM	7.00	\$20,774
7	June	\$1,482	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	6/22/16 12:00 PM	6.50	\$9,636
8	July	\$1,481	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM	7/27/16 12:00 PM	11.00	\$16,293
9	August	\$1,481	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM	8/31/16 12:00 PM	15.00	\$22,218
10	September	\$1,457	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM	9/12/16 12:00 PM	(3.50)	-\$5,098
11	October	\$1,453	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	10/12/16 12:00 PM	(4.00)	-\$5,813
12	November	\$1,453	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	11/21/16 12:00 PM	5.50	\$7,993
13	December	\$1,453	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	12/14/16 12:00 PM	(2.00)	-\$2,907
14									
15									
16		<u>\$17,685</u>						6.68	<u>\$118,055</u>
17									
18									
19									
20	Payments to LINA (Cigna Group Insurance)								
21									
22									

Northern Utilities, Inc. - New Hampshire Division
Pensions & Benefits Calculation of (Lead) Lag
Employee Benefit Accrual Adj
12 Months Ended Dec 31, 2016

5/18/2017
12:10:27 PM

Acct: 30-40-10-00-9260302

Line No	Month	Expense Amount	Service From	Service To	Total Days	(Lead) Lag Days	Weighted Dollar Days
1							
2	January	\$2,249	1/1/16 12:00 AM	2/1/16 12:00 AM	31	81.84	\$184,044
3	February	\$0	2/1/16 12:00 AM	3/1/16 12:00 AM	29	81.84	\$0
4	March	\$0	3/1/16 12:00 AM	4/1/16 12:00 AM	31	81.84	\$0
5	April	\$0	4/1/16 12:00 AM	5/1/16 12:00 AM	30	81.84	\$0
6	May	\$0	5/1/16 12:00 AM	6/1/16 12:00 AM	31	81.84	\$0
7	June	\$0	6/1/16 12:00 AM	7/1/16 12:00 AM	30	81.84	\$0
8	July	\$0	7/1/16 12:00 AM	8/1/16 12:00 AM	31	81.84	\$0
9	August	\$0	8/1/16 12:00 AM	9/1/16 12:00 AM	31	81.84	\$0
10	September	\$0	9/1/16 12:00 AM	10/1/16 12:00 AM	30	81.84	\$0
11	October	\$0	10/1/16 12:00 AM	11/1/16 12:00 AM	31	81.84	\$0
12	November	\$0	11/1/16 12:00 AM	12/1/16 12:00 AM	30	81.84	\$0
13	December	<u>-\$14,739</u>	12/1/16 12:00 AM	1/1/17 12:00 AM	31	81.84	<u>-\$1,206,189</u>
14							
15		<u><u>-\$12,490</u></u>			<u>366</u>	81.84	<u><u>-\$1,022,145</u></u>
16							
17							
18							
19							

YE accrual for late adjustments (after Plant Accounting Close) to expense - separate account to be reclassified in Jan 2016 to normal account (basis for capitalization entries)

Represents the Additional Pensions & Benefits items that will have capitalization applied to it but not yet classified by Plant Acctg.

Lag based on Benefits capitalized

Northern Utilities, Inc. - New Hampshire Division
Pensions & Benefits Calculation of (Lead) Lag
Benefit Cost Capitalized
12 Months Ended Dec 31, 2016

5/18/2017
12:10:27 PM

Acct: 30-40-10-00-9260500

Line No	Month	Expense Amount	Service From	Service To	Total Days	(Lead) Lag Days	Weighted Dollar Days
1							
2	January	-\$24,419	1/1/16 12:00 AM	2/1/16 12:00 AM	31	81.84	-\$1,998,398
3	February	-\$28,444	2/1/16 12:00 AM	3/1/16 12:00 AM	29	81.84	-\$2,327,752
4	March	-\$25,690	3/1/16 12:00 AM	4/1/16 12:00 AM	31	81.84	-\$2,102,396
5	April	-\$26,953	4/1/16 12:00 AM	5/1/16 12:00 AM	30	81.84	-\$2,205,759
6	May	-\$21,971	5/1/16 12:00 AM	6/1/16 12:00 AM	31	81.84	-\$1,798,088
7	June	-\$27,750	6/1/16 12:00 AM	7/1/16 12:00 AM	30	81.84	-\$2,270,987
8	July	-\$28,032	7/1/16 12:00 AM	8/1/16 12:00 AM	31	81.84	-\$2,294,071
9	August	-\$28,304	8/1/16 12:00 AM	9/1/16 12:00 AM	31	81.84	-\$2,316,353
10	September	-\$21,492	9/1/16 12:00 AM	10/1/16 12:00 AM	30	81.84	-\$1,758,879
11	October	-\$28,083	10/1/16 12:00 AM	11/1/16 12:00 AM	31	81.84	-\$2,298,259
12	November	-\$184,708	11/1/16 12:00 AM	12/1/16 12:00 AM	30	81.84	-\$15,116,035
13	December	-\$28,115	12/1/16 12:00 AM	1/1/17 12:00 AM	31	81.84	-\$2,300,887
14							
15		-\$473,962				81.84	-\$38,787,863
16							
17							
18							
19							
20	Employee Benefit expense offset for capitalization						
21							
22	Based on Benefits (Health & Dental) Lead Lag from Summary Schedule						
23							
24							

Northern Utilities, Inc. - New Hampshire Division
Pensions & Benefits Calculation of (Lead) Lag
Empl Benefits Other
12 Months Ended Dec 31, 2016

5/18/2017
12:10:27 PM

Acct: 30-40-03-00-9260600 & 601

Line No	Month	Expense Amount	Service From	Service To	Total Days	Mid-Point Calculation Date	Payment Date	(Lead) Lag Days	Weighted Dollar Days
1									
2	January	\$7,352	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM		39.57	\$290,891
3	February	\$2,392	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM		39.57	\$94,659
4	March	\$3,492	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM		39.57	\$138,168
5	April	\$1,417	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM		39.57	\$56,062
6	May	\$2,349	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM		39.57	\$92,919
7	June	\$3,228	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM		39.57	\$127,703
8	July	\$2,998	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM		39.57	\$118,600
9	August	\$2,431	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM		39.57	\$96,180
10	September	\$4,062	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM		39.57	\$160,709
11	October	\$1,529	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM		39.57	\$60,511
12	November	\$1,582	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM		39.57	\$62,574
13	December	<u>\$4,927</u>	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM		39.57	<u>\$194,922</u>
14									
15		<u><u>\$37,758</u></u>						39.57	<u><u>\$1,493,898</u></u>
16									
17									
18									
19									
20	Misc Employee Benefit expenses representing a number of unrelated expenses.								
21	Such as Safety Shoes, Doctor Referrals, Coffee & Kitchen supplies, Physicals, Drug Screening, Flu Shots, Cleaning Supplies								
22									
23	Use lag for Other O&M expenses								
24									
25									

Northern Utilities, Inc. - New Hampshire Division
Pensions & Benefits Calculation of (Lead) Lag
SFAS 106 - PBOP Expense
12 Months Ended Dec 31, 2016

5/18/2017
12:10:27 PM

Acct: 30-40-03-00-9260900

Line No	Month	Expense Amount	Service From	Service To	Total Days	Mid-Point Calculation Date	Payment Date	(Lead) Lag Days	Weighted Dollar Days
1									
2	January	\$53,455	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	3/31/16 12:00 PM	75.00	\$4,009,125
3	February	\$53,455	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	3/31/16 12:00 PM	45.00	\$2,405,475
4	March	\$53,455	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	3/31/16 12:00 PM	15.00	\$801,825
5	April	\$53,455	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	4/29/16 12:00 PM	13.50	\$721,643
6	May	\$53,455	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	5/31/16 12:00 PM	15.00	\$801,825
7	June	\$53,455	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	6/30/16 12:00 PM	14.50	\$775,098
8	July	\$53,455	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM	7/29/16 12:00 PM	13.00	\$694,915
9	August	\$53,455	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM	8/31/16 12:00 PM	15.00	\$801,825
10	September	\$53,455	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM	9/30/16 12:00 PM	14.50	\$775,098
11	October	\$53,455	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	10/31/16 12:00 PM	15.00	\$801,825
12	November	\$53,455	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	11/30/16 12:00 PM	14.50	\$775,098
13	December	\$53,449	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	12/30/16 12:00 PM	14.00	\$748,286
14									
15		<u>\$641,454</u>						22.00	<u>\$14,112,036</u>

Monthly accrual for PBOP Expense

Payments are made at the end of the month for the current month on a normal basis.

End of month Payment dates are entered for all months where an actual payment was not made.

Payment Activity for PBOP:

26	\$37,700	SEI PRIVATE TRUST CO	3/31/16 12:00 PM
27	\$37,700	SEI PRIVATE TRUST CO	4/29/16 12:00 PM
28	\$37,700	SEI PRIVATE TRUST CO	5/31/16 12:00 PM
29	\$37,700	SEI PRIVATE TRUST CO	6/30/16 12:00 PM
30	\$37,700	SEI PRIVATE TRUST CO	7/29/16 12:00 PM
31	\$37,700	SEI PRIVATE TRUST CO	8/31/16 12:00 PM
32	\$37,700	SEI PRIVATE TRUST CO	9/30/16 12:00 PM
33	\$37,700	SEI PRIVATE TRUST CO	10/31/16 12:00 PM
34	\$37,700	SEI PRIVATE TRUST CO	11/30/16 12:00 PM
35	\$32,289	SEI PRIVATE TRUST CO	12/30/16 12:00 PM
36			
37	<u>\$371,589</u>		

Northern Utilities, Inc. - New Hampshire Division
Pensions & Benefits Calculation of (Lead) Lag
SFAS 106 - PBOP Expense - USC Alloc
12 Months Ended Dec 31, 2016

5/18/2017
12:10:27 PM

Acct: 30-40-10-00-9260910

Line No	Month	Expense Amount	Service From	Service To	Total Days	Mid-Point Calculation Date	Payment Date	(Lead) Lag Days	Weighted Dollar Days
1									
2	January	\$31,582	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM		40.44	\$1,277,246
3	February	\$31,582	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM		40.44	\$1,277,246
4	March	\$31,582	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM		40.44	\$1,277,246
5	April	\$31,582	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM		40.44	\$1,277,246
6	May	\$31,582	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM		40.44	\$1,277,246
7	June	\$31,582	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM		40.44	\$1,277,246
8	July	\$31,582	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM		40.44	\$1,277,246
9	August	\$31,582	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM		40.44	\$1,277,246
10	September	\$31,582	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM		40.44	\$1,277,246
11	October	\$31,582	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM		40.44	\$1,277,246
12	November	\$31,582	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM		40.44	\$1,277,246
13	December	<u>\$31,584</u>	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM		40.44	<u>\$1,277,327</u>
14									
15		<u><u>\$378,986</u></u>						40.44	<u><u>\$15,327,038</u></u>
16									

Record calculated USC PBOP expense billed through the USC bill. Lags based on Service Company payments.

Northern Utilities, Inc. - New Hampshire Division
Pensions & Benefits Calculation of (Lead) Lag
SFAS 106 PBOP Cost Capitalized
12 Months Ended Dec 31, 2016

5/18/2017
12:10:27 PM

Acct: **30-40-10-00-9261700**

Line No	Month	Expense Amount	Service From	Service To	Total Days	(Lead) Lag Days	Weighted Dollar Days
1							
2	January	-\$24,028	1/1/16 12:00 AM	2/1/16 12:00 AM	31	22.00	-\$528,620
3	February	-\$24,028	2/1/16 12:00 AM	3/1/16 12:00 AM	29	22.00	-\$528,624
4	March	-\$24,028	3/1/16 12:00 AM	4/1/16 12:00 AM	31	22.00	-\$528,614
5	April	-\$24,028	4/1/16 12:00 AM	5/1/16 12:00 AM	30	22.00	-\$528,622
6	May	-\$24,028	5/1/16 12:00 AM	6/1/16 12:00 AM	31	22.00	-\$528,609
7	June	-\$24,028	6/1/16 12:00 AM	7/1/16 12:00 AM	30	22.00	-\$528,618
8	July	-\$24,029	7/1/16 12:00 AM	8/1/16 12:00 AM	31	22.00	-\$528,630
9	August	-\$24,028	8/1/16 12:00 AM	9/1/16 12:00 AM	31	22.00	-\$528,618
10	September	-\$24,028	9/1/16 12:00 AM	10/1/16 12:00 AM	30	22.00	-\$528,607
11	October	-\$24,028	10/1/16 12:00 AM	11/1/16 12:00 AM	31	22.00	-\$528,620
12	November	-\$24,028	11/1/16 12:00 AM	12/1/16 12:00 AM	30	22.00	-\$528,623
13	December	-\$24,025	12/1/16 12:00 AM	1/1/17 12:00 AM	31	22.00	-\$528,556
14							
15		-\$288,334				22.00	-\$6,343,360
16							
17							
18							
19							
20	PBOP Expense offset for capitalization						
21							
22							
23	Lag Based on SFAS 106 - PBOP expense lead lag schedule.						
24							
25							

Northern Utilities, Inc. - New Hampshire Division
Pensions & Benefits Calculation of (Lead) Lag
SFAS 106 PBOP Cost Capitalized - USC Alloc
12 Months Ended Dec 31, 2016

5/18/2017
12:10:27 PM

Acct: 30-40-10-00-9261712

Line No	Month	Expense Amount	Service From	Service To	Total Days	(Lead) Lag Days	Weighted Dollar Days
1							
2	January	-\$9,847	1/1/16 12:00 AM	2/1/16 12:00 AM	31	40.44	-\$398,235
3	February	-\$9,847	2/1/16 12:00 AM	3/1/16 12:00 AM	29	40.44	-\$398,235
4	March	-\$9,847	3/1/16 12:00 AM	4/1/16 12:00 AM	31	40.44	-\$398,235
5	April	-\$9,847	4/1/16 12:00 AM	5/1/16 12:00 AM	30	40.44	-\$398,235
6	May	-\$9,847	5/1/16 12:00 AM	6/1/16 12:00 AM	31	40.44	-\$398,235
7	June	-\$9,847	6/1/16 12:00 AM	7/1/16 12:00 AM	30	40.44	-\$398,235
8	July	-\$9,847	7/1/16 12:00 AM	8/1/16 12:00 AM	31	40.44	-\$398,235
9	August	-\$9,847	8/1/16 12:00 AM	9/1/16 12:00 AM	31	40.44	-\$398,235
10	September	-\$9,847	9/1/16 12:00 AM	10/1/16 12:00 AM	30	40.44	-\$398,235
11	October	-\$9,847	10/1/16 12:00 AM	11/1/16 12:00 AM	31	40.44	-\$398,235
12	November	-\$9,847	11/1/16 12:00 AM	12/1/16 12:00 AM	30	40.44	-\$398,235
13	December	-\$9,851	12/1/16 12:00 AM	1/1/17 12:00 AM	31	40.44	-\$398,396
14							
15		-\$118,168				40.44	-\$4,778,977
16							
17							
18							
19							
20	PBOP Expense offset for capitalization of USC allocated						
21							
22							
23	Lag Based on SFAS 106 - PBOP expense USC lead lag schedule - Service Company lags.						
24							
25							

Pensions Benefit Payments Calculation of (Lead) Lag
Empl Pension Fund Services

5/18/2017
2:55:52 PM

Acct:

Line No	<u>Benefit Payment Date</u>	<u>Expense Amount</u>	<u>Service From</u>	<u>Service To</u>	<u>Total Days</u>	<u>Mid-Point Calculation Date</u>	<u>Payment Date</u>	<u>(Lead) Lag Days</u>	<u>Weighted Dollar Days</u>
1	1/6/2016	\$7,690	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	1/6/16 12:00 PM	(10.00)	-\$76,903
2	1/28/2016	\$35,076	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	1/28/16 12:00 PM	12.00	\$420,914
3	2/5/2016	\$46	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	2/5/16 12:00 PM	(10.00)	-\$459
4	2/23/2016	-\$81	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	2/23/16 12:00 PM	8.00	-\$646
5	2/26/2016	\$35,082	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	2/26/16 12:00 PM	11.00	\$385,899
6	3/30/2016	\$35,167	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	3/30/16 12:00 PM	14.00	\$492,331
7	4/6/2016	\$82	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	4/6/16 12:00 PM	(9.50)	-\$775
8	4/12/2016	-\$57	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	4/12/16 12:00 PM	(3.50)	\$199
9	4/28/2016	\$35,414	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	4/28/16 12:00 PM	12.50	\$442,671
10	5/4/2016	\$189	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	5/4/16 12:00 PM	(12.00)	-\$2,263
11	5/27/2016	\$35,602	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	5/27/16 12:00 PM	11.00	\$391,625
12	6/3/2016	\$97	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	6/3/16 12:00 PM	(12.50)	-\$1,207
13	6/9/2016	-\$97	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	6/9/16 12:00 PM	(6.50)	\$627
14	6/10/2016	\$97	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	6/10/16 12:00 PM	(5.50)	-\$531
15	6/29/2016	\$35,903	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	6/29/16 12:00 PM	13.50	\$484,689
16	7/1/2016	\$72,624	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM	7/1/16 12:00 PM	(15.00)	-\$1,089,363
17	7/28/2016	\$35,903	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM	7/28/16 12:00 PM	12.00	\$430,834
18	8/4/2016	-\$46	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM	8/4/16 12:00 PM	(12.00)	\$553
19	8/30/2016	\$36,010	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM	8/30/16 12:00 PM	14.00	\$504,143
20	9/2/2016	\$136	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM	9/2/16 12:00 PM	(13.50)	-\$1,838
21	9/28/2016	\$36,156	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM	9/28/16 12:00 PM	12.50	\$451,956
22	10/28/2016	\$35,890	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	10/28/16 12:00 PM	12.00	\$430,674
23	11/4/2016	\$79	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	11/4/16 12:00 PM	(11.50)	-\$909
24	11/16/2016	-\$13	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	11/16/16 12:00 PM	0.50	-\$7
25	11/29/2016	<u>\$36,092</u>	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	11/29/16 12:00 PM	<u>13.50</u>	<u>\$487,248</u>
		\$473,040						7.93	\$3,749,462

Northern Utilities, Inc. - New Hampshire Division
Calculation Acct 925 Injuries & Damages Lead Lag Days
12 Months Ended Dec 31, 2016

5/18/2017
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Line		Total 2016	Lag Days	Weighted
No	Annual Charges to Acct	Charges		Dollar Days
1				
2				
3	30-40-08-00-9250000 D & O AND FIDUCIARY-NH	\$47,894	(186.36)	-\$8,925,233
4	30-40-08-00-9250200 GENERAL LIABILITY-NH	\$248,268	(170.58)	-\$42,348,388
5	30-40-08-00-9250202 GENERAL LIABILITY CLAIMS-NH	\$13,847	135.76	\$1,879,898
6	30-40-08-00-9250400 WORKERS COMP EXP - NH	\$86,598	(46.40)	-\$4,018,125
7	30-40-80-00-9250100 INJURIES & DAMAGES SAFETY - NH	\$3,187	27.51	\$87,663
8	30-40-10-00-9250201 GEN LIABILITY CAPITILIZED - NH	-\$131,925	(170.58)	\$22,503,145
9	30-40-10-00-9250401 WORKERS COMP CAPITILIZED - NH	-\$38,926	(46.40)	\$1,806,147
10				
11	Total Injuries & Damages Acct 925	<u>\$228,942</u>	<u>(126.73)</u>	<u>-\$29,014,893</u>
12				
13				
14				
15				

Northern Utilities, Inc. - New Hampshire Division
Calculation Acct 925 Injuries & Damages Lead Lag Days
12 Months Ended Dec 31, 2016
General Liability

5/18/2017
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Expense Initially Charged to
Acct 30-40-00-00-1650101 - Prepaid Inj & Dam Ins

Line No	Charges for Expense Account	2016 Payment Amounts	Service Period Start End		Total Days	Midpoint Service Period	Date Paid	Lag Days	Weighted Dollar Days
1									
2	<u>30-40-08-00-9250200 GENERAL LIABILITY-NH</u>								
3									
4	HUB INTERNATIONAL N E	\$7,244	1/1/16 12:00 AM	1/1/17 12:00 AM	366	7/2/16 12:00 AM	1/11/16 12:00 PM	(172.50)	-\$1,249,659
5	AEGIS INSURANCE SERVICES INC.	\$232,541	1/1/16 12:00 AM	1/1/17 12:00 AM	366	7/2/16 12:00 AM	1/13/16 12:00 PM	(170.50)	-\$39,648,258
6	HUB INTERNATIONAL N E	\$8,482	9/1/16 12:00 AM	9/1/17 12:00 AM	365	3/2/17 12:00 PM	9/12/16 12:00 PM	(171.00)	-\$1,450,472
7									
8									
9	Total 2016 Payments - GENERAL LIABILITY	<u>\$248,268</u>						(170.58)	<u>-\$42,348,388</u>
10									
11									
12									
13									

Northern Utilities, Inc. - New Hampshire Division
Calculation Acct 925 Injuries & Damages Lead Lag Days
12 Months Ended Dec 31, 2016
D & O Fiduciary

5/18/2017
12:09:30 PM

Expense Initially Charged to
Acct 30-40-00-00-1650101 - Prepaid Inj & Dam Ins

Line No	Charges for Expense Account	2016 Payment Amounts	Service Period Start End		Total Days	Midpoint Service Period	Date Paid	Lag Days	Weighted Dollar Days
1									
2	<u>30-40-08-00-9250000 D & O AND FIDUCIARY-NH</u>								
3									
4	HUB INTERNATIONAL N E	\$765	5/1/16 12:00 AM	5/1/17 12:00 AM	365	10/30/16 12:00 PM	4/25/16 12:00 PM	(188.00)	-\$143,822
5	HUB INTERNATIONAL N E	\$4,356	5/1/16 12:00 AM	5/1/17 12:00 AM	365	10/30/16 12:00 PM	4/25/16 12:00 PM	(188.00)	-\$818,872
6	HUB INTERNATIONAL N E	\$3,124	5/1/16 12:00 AM	5/1/17 12:00 AM	365	10/30/16 12:00 PM	4/25/16 12:00 PM	(188.00)	-\$587,340
7	AEGIS INSURANCE SERVICES INC.	\$38,118	5/1/16 12:00 AM	5/1/17 12:00 AM	365	10/30/16 12:00 PM	4/27/16 12:00 PM	(186.00)	-\$7,089,888
8									
9									
10	Total 2016 Payments - D&O & FIDUCIARY	<u>\$46,363</u>						(186.36)	<u>-\$8,639,922</u>
11									
12									
13									

Northern Utilities, Inc. - New Hampshire Division
Calculation Acct 925 Injuries & Damages Lead Lag Days
12 Months Ended Dec 31, 2016
General Liability Claims

5/18/2017
12:09:30 PM

Expense Initially Charged to
Acct 30-40-00-00-2423110 - Insurance Claims Reserve-NH

Line No	Charges for Expense Account	2016 Payment Amounts	Service Period Start End		Total Days	Midpoint Service Period	Date Paid	Lag Days	Weighted Dollar Days
1									
2	30-40-08-00-9250202 GENERAL LIABILITY CLAIMS-NH								
3									
4	DAMAGES	\$159	12/30/15 12:00 AM	12/31/15 12:00 AM	1	12/30/15 12:00 PM	1/14/16 12:00 PM	15.00	\$2,385
5	DAMAGES	\$2,610	12/28/15 12:00 AM	12/29/15 12:00 AM	1	12/28/15 12:00 PM	1/28/16 12:00 PM	31.00	\$80,910
6	DAMAGES	\$99	1/12/16 12:00 AM	1/13/16 12:00 AM	1	1/12/16 12:00 PM	2/4/16 12:00 PM	23.00	\$2,277
7	DAMAGES	\$435	3/28/16 12:00 AM	3/29/16 12:00 AM	1	3/28/16 12:00 PM	4/14/16 12:00 PM	17.00	\$7,395
8	DAMAGES	\$3,365	11/18/15 12:00 AM	11/19/15 12:00 AM	1	11/18/15 12:00 PM	5/12/16 12:00 PM	176.00	\$592,291
9	DAMAGES	\$99	5/17/16 12:00 AM	5/18/16 12:00 AM	1	5/17/16 12:00 PM	6/9/16 12:00 PM	23.00	\$2,277
10	DAMAGES	\$107	6/2/16 12:00 AM	6/3/16 12:00 AM	1	6/2/16 12:00 PM	6/30/16 12:00 PM	28.00	\$2,989
11	DAMAGES	\$814	5/2/16 12:00 AM	5/3/16 12:00 AM	1	5/2/16 12:00 PM	8/4/16 12:00 PM	94.00	\$76,516
12	DAMAGES	\$1,500	11/18/15 12:00 AM	11/19/15 12:00 AM	1	11/18/15 12:00 PM	10/13/16 12:00 PM	330.00	\$495,000
13	DAMAGES	\$128	12/8/16 12:00 AM	12/9/16 12:00 AM	1	12/8/16 12:00 PM	12/29/16 12:00 PM	21.00	\$2,678
14									
15									
16	Total 2016 Payments - GENERAL LIABILITY CLAIMS	<u>\$9,316</u>						135.76	<u>\$1,264,718</u>
17									
18									
19									

Northern Utilities, Inc. - New Hampshire Division
Calculation Acct 925 Injuries & Damages Lead Lag Days
12 Months Ended Dec 31, 2016
Workmen's Compensation

5/18/2017
12:09:30 PM

Line No	Charges for Expense Account	2016 Payment Amounts	Service Period Start End		Total Days	Midpoint Service Period	Date Paid	Lag Days	Weighted Dollar Days
1									
2	<u>30-40-08-00-9250400 WORKERS COMP EXP - NH</u>								
3									
4	Current Policy Payments	\$19,658	10/1/15 12:00 AM	10/1/16 12:00 AM	366	4/1/16 12:00 AM	10/29/15 12:00 PM	(154.50)	-\$3,037,164
5		\$9,829	10/1/15 12:00 AM	10/1/16 12:00 AM	366	4/1/16 12:00 AM	11/19/15 12:00 PM	(133.50)	-\$1,312,173
6		\$9,829	10/1/15 12:00 AM	10/1/16 12:00 AM	366	4/1/16 12:00 AM	12/23/15 12:00 PM	(99.50)	-\$977,986
7		\$9,829	10/1/15 12:00 AM	10/1/16 12:00 AM	366	4/1/16 12:00 AM	1/28/16 12:00 PM	(63.50)	-\$624,142
8		\$9,829	10/1/15 12:00 AM	10/1/16 12:00 AM	366	4/1/16 12:00 AM	2/18/16 12:00 PM	(42.50)	-\$417,733
9		\$9,829	10/1/15 12:00 AM	10/1/16 12:00 AM	366	4/1/16 12:00 AM	3/24/16 12:00 PM	(7.50)	-\$73,718
10		\$9,829	10/1/15 12:00 AM	10/1/16 12:00 AM	366	4/1/16 12:00 AM	4/29/16 12:00 PM	28.50	\$280,127
11		\$9,829	10/1/15 12:00 AM	10/1/16 12:00 AM	366	4/1/16 12:00 AM	6/6/16 12:00 PM	66.50	\$653,629
12		\$9,829	10/1/15 12:00 AM	10/1/16 12:00 AM	366	4/1/16 12:00 AM	7/6/16 12:00 PM	96.50	\$948,499
13									
14									
15									
16	Total 2016 Payments - Workmen's Compensation	<u>\$98,290</u>						(46.40)	<u>-\$4,560,661</u>
17									
18									
19									

Northern Utilities, Inc. - New Hampshire Division
Calculation Acct 925 Injuries & Damages Lead Lag Days
12 Months Ended Dec 31, 2016
Injuries & Damages - Safety

5/18/2017
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Line No	Charges for Expense Account	2016 Payment Amounts	Service Period Start End		Total Days	Midpoint Service Period	Date Paid	Lag Days	Weighted Dollar Days
1									
2	<u>30-40-80-00-9250100 INJURIES & DAMAGES SAFETY - NH</u>								
3									
4	STAUFFER GLOVE & SAFETY	\$446	4/14/16 12:00 AM	4/15/16 12:00 AM	1	4/14/16 12:00 PM	5/12/16 12:00 PM	28.00	\$12,492
5	STAUFFER GLOVE & SAFETY	\$253	6/8/16 12:00 AM	6/9/16 12:00 AM	1	6/8/16 12:00 PM	6/30/16 12:00 PM	22.00	\$5,561
6	STAUFFER GLOVE & SAFETY	\$369	6/14/16 12:00 AM	6/15/16 12:00 AM	1	6/14/16 12:00 PM	7/7/16 12:00 PM	23.00	\$8,492
7	STAUFFER GLOVE & SAFETY	\$237	6/27/16 12:00 AM	6/28/16 12:00 AM	1	6/27/16 12:00 PM	7/21/16 12:00 PM	24.00	\$5,686
8	HAWKINS SAFETY EQUIP SALES LLC	\$787	6/29/16 12:00 AM	6/30/16 12:00 AM	1	6/29/16 12:00 PM	8/2/16 12:00 PM	34.00	\$26,746
9	HAWKINS SAFETY EQUIP SALES LLC	\$250	6/29/16 12:00 AM	6/30/16 12:00 AM	1	6/29/16 12:00 PM	8/2/16 12:00 PM	34.00	\$8,502
10	FITCHBURG HARDWARE CO INC	\$131	8/26/16 12:00 AM	8/27/16 12:00 AM	1	8/26/16 12:00 PM	9/15/16 12:00 PM	20.00	\$2,616
11	FITCHBURG HARDWARE CO INC	\$142	8/31/16 12:00 AM	9/1/16 12:00 AM	1	8/31/16 12:00 PM	9/27/16 12:00 PM	27.00	\$3,826
12	FITCHBURG HARDWARE CO INC	\$573	9/30/16 12:00 AM	10/1/16 12:00 AM	1	9/30/16 12:00 PM	10/24/16 12:00 PM	24.00	\$13,742
13									
14	Total 2016 Payments - Injuries & Damages Safety	<u>\$3,187</u>						27.51	<u>\$87,663</u>
15									
16									
17									
18									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Acct 928 Regulatory Commission Expense Lead Lag Days
12 Months Ended December 31, 2016
Regulatory Commission Assessment Fees

5/18/2017
12:41:33 PM

30-40-01-00-9280100
30-49-01-77-9280300

Line No	Description of Payment	Total Payments 2016	<u>Service Period</u>		Total Days	Midpoint Service Period	Scheduled Payment Date	(Lead) Lag Days	Weighted Dollar Days
			<u>Start</u>	<u>End</u>					
1	PUBLIC UTILITIES COMMISSION	\$105,277	7/1/15 12:00 AM	7/1/16 12:00 AM	366	12/31/15 12:00 AM	2/5/16 12:00 PM	36.5	\$3,842,611
2	PUBLIC UTILITIES COMMISSION	\$105,277	7/1/15 12:00 AM	7/1/16 12:00 AM	366	12/31/15 12:00 AM	5/13/16 12:00 PM	134.5	\$14,159,757
3	PUBLIC UTILITIES COMMISSION	\$37,659	7/1/16 12:00 AM	7/1/17 12:00 AM	365	12/30/16 12:00 PM	8/26/16 12:00 PM	-126.0	(\$4,745,034)
4	PUBLIC UTILITIES COMMISSION	\$90,997	7/1/16 12:00 AM	7/1/17 12:00 AM	365	12/30/16 12:00 PM	10/27/16 12:00 PM	-64.0	(\$5,823,808)
5					0	1/0/00 12:00 AM		0.0	\$0
6					0	1/0/00 12:00 AM		0.0	\$0
7					0	1/0/00 12:00 AM		0.0	\$0
8					0	1/0/00 12:00 AM		0.0	\$0
9					0	1/0/00 12:00 AM		0.0	\$0
10					0	1/0/00 12:00 AM		0.0	\$0
11					0	1/0/00 12:00 AM		0.0	\$0
12					0	1/0/00 12:00 AM		0.0	\$0
14									
15	Total Public Utility Assessment Expense	<u>\$339,210</u>						<u>21.91</u>	<u>\$7,433,525</u>
16									
17									
18	Total Base Amt in Acct 928.01	<u>\$91,075</u>							
19									
20	Total Flowthru Amt in Acct 928.01	<u>\$248,135</u>							
21									
22									
23	Note: Include Base and Flow thru in payment amount.								
24									
25									

Northern Utilities, NH
Calculation of Operating Lease Lead Lag Days
12 Months Ended Dec 31, 2016
Summary of Operating Lease Activity

5/18/2017
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Line No	Type of Tax	Test Period Charges	(Lead) Lag Days	Weighted Dollar Days
1	January Payments	\$ 24,446	-0.59	\$ (14,495)
2	February Payments	\$ 22,578	-4.54	\$ (102,498)
3	March Payments	\$ 22,567	-0.56	\$ (12,608)
4	April Payments	\$ 22,696	1.77	\$ 40,144
5	May Payments	\$ 22,626	-0.62	\$ (13,967)
6	June Payments	\$ 24,152	14.60	\$ 352,575
7	July Payments	\$ 24,226	-2.59	\$ (62,795)
8	August Payments	\$ 52,713	1.76	\$ 92,977
9	September Payments	\$ 22,274	0.07	\$ 1,546
10	October Payments	\$ 22,687	-0.50	\$ (11,395)
11	November Payments	\$ 22,641	-0.26	\$ (5,999)
12	December Payments	\$ 40,666	4.80	\$ 195,161
13				
14	Total Lease Payments	<u>\$ 324,271</u>	1.41	<u>\$ 458,646</u>
15				
16	Percent charged to O&M	42.86%		
17				
18				
19	Total Lease Payments for O&M	<u><u>\$ 138,987</u></u>		
20				
21				

Northern Utilities, NH
Calculation of Operating Lease Lead Lag Days
12 Months Ended Dec 31, 2016
January Payments

5/18/2017
12:40:35 PM

Line No	Description of Payment	Payment Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Check Date	(Lead) Lag Days	Weighted Dollar Days
			<u>Start</u>	<u>End</u>					
1	CITIZENS ASSET FINANCE INC	\$ 14,918	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	1/14/16 12:00 PM	-2.0 \$	(29,836)
3	CITIZENS ASSET FINANCE INC	\$ 6,929	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	1/14/16 12:00 PM	-2.0 \$	(13,857)
4	CITIZENS ASSET FINANCE INC	\$ 1,328	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	1/14/16 12:00 PM	-2.0 \$	(2,656)
2	CITIZENS ASSET FINANCE INC	\$ 456	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	1/14/16 12:00 PM	-2.0 \$	(912)
5	CITIZENS ASSET FINANCE INC	\$ 91	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	1/26/16 12:00 PM	10.0 \$	909
6	D L PETERSON	\$ 725	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	1/26/16 12:00 PM	-20.0 \$	(14,493)
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18		<u>\$ 24,446</u>							<u>\$ (14,495)</u>
19									
20									
21		Total January Payments				\$24,446			
22									
23		Total Weighted Dollar Days				-\$14,495			
24									
25		January Payments (Lead) Lag Days				-0.59			
26									
27									

Note: Buyback of vehicles are included with other vehicle clearing account expenses.

Northern Utilities, NH
Calculation of Operating Lease Lead Lag Days
12 Months Ended Dec 31, 2016
February Payments

5/18/2017
12:40:35 PM

Line No	Description of Payment	Payment Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Check Date	(Lead) Lag Days	Weighted Dollar Days
			<u>Start</u>	<u>End</u>					
2	CITIZENS ASSET FINANCE INC	\$ 14,307	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	2/11/16 12:00 PM	-4.0 \$	(57,228)
3	CITIZENS ASSET FINANCE INC	\$ 6,929	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	2/11/16 12:00 PM	-4.0 \$	(27,715)
1	CITIZENS ASSET FINANCE INC	\$ 456	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	2/11/16 12:00 PM	-4.0 \$	(1,823)
4	CITIZENS ASSET FINANCE INC	\$ 164	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	2/16/16 12:00 PM	1.0 \$	164
5	D L PETERSON	\$ 723	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	2/23/16 12:00 PM	-22.0 \$	(15,896)
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16		<u>\$ 22,578</u>							<u>\$ (102,498)</u>
17									
18									
19	Total February Payments					\$22,578			
20									
21	Total Weighted Dollar Days					-\$102,498			
22									
23	February Payments (Lead) Lag Days					-4.54			
24									

Northern Utilities, NH
Calculation of Operating Lease Lead Lag Days
12 Months Ended Dec 31, 2016
March Payments

5/18/2017
12:40:35 PM

Line No	Description of Payment	Payment Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Check Date	(Lead) Lag Days	Weighted Dollar Days
			<u>Start</u>	<u>End</u>					
2	CITIZENS ASSET FINANCE INC	\$ 14,307	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	3/16/16 12:00 PM	0.0 \$	-
4	CITIZENS ASSET FINANCE INC	\$ 6,929	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	3/16/16 12:00 PM	0.0 \$	-
1	CITIZENS ASSET FINANCE INC	\$ 456	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	3/16/16 12:00 PM	0.0 \$	-
3	CITIZENS ASSET FINANCE INC	\$ 155	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	3/16/16 12:00 PM	0.0 \$	-
5	D L PETERSON	\$ 720	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	3/29/16 12:00 PM	-17.5 \$	(12,608)
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16		<u>\$ 22,567</u>							<u>\$ (12,608)</u>
17									
18									
19	Total March Payments					\$22,567			
20									
21	Total Weighted Dollar Days					-\$12,608			
22									
23	March Payments (Lead) Lag Days					-0.56			
24									

Northern Utilities, NH
Calculation of Operating Lease Lead Lag Days
12 Months Ended Dec 31, 2016
April Payments

5/18/2017
12:40:35 PM

Line No	Description of Payment	Payment Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Check Date	(Lead) Lag Days	Weighted Dollar Days
			<u>Start</u>	<u>End</u>					
1	CITIZENS ASSET FINANCE INC	\$ 14,307	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	4/18/16 12:00 PM	2.5 \$	35,767
3	CITIZENS ASSET FINANCE INC	\$ 6,929	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	4/18/16 12:00 PM	2.5 \$	17,322
2	CITIZENS ASSET FINANCE INC	\$ 456	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	4/18/16 12:00 PM	2.5 \$	1,140
4	CITIZENS ASSET FINANCE INC	\$ 286	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	4/19/16 12:00 PM	3.5 \$	1,001
5	D L PETERSON	\$ 718	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	4/25/16 12:00 PM	-21.0 \$	(15,086)
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16		<u>\$ 22,696</u>							<u>\$ 40,144</u>
17									
18									
19		Total April Payments				\$22,696			
20									
21		Total Weighted Dollar Days				\$40,144			
22									
23		April Payments (Lead) Lag Days				1.77			
24									

Northern Utilities, NH
Calculation of Operating Lease Lead Lag Days
12 Months Ended Dec 31, 2016
May Payments

5/18/2017
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Line No	Description of Payment	Payment Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Check Date	(Lead) Lag Days	Weighted Dollar Days
			<u>Start</u>	<u>End</u>					
2	CITIZENS ASSET FINANCE INC	\$ 14,307	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	5/16/16 12:00 PM	0.0 \$	-
4	CITIZENS ASSET FINANCE INC	\$ 6,929	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	5/16/16 12:00 PM	0.0 \$	-
3	CITIZENS ASSET FINANCE INC	\$ 456	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	5/16/16 12:00 PM	0.0 \$	-
1	CITIZENS ASSET FINANCE INC	\$ 218	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	5/16/16 12:00 PM	0.0 \$	-
5	D L PETERSON	\$ 716	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	5/27/16 12:00 PM	-19.5 \$	(13,967)
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16		<u>\$ 22,626</u>							<u>\$ (13,967)</u>
17									
18									
19	Total May Payments					\$22,626			
20									
21	Total Weighted Dollar Days					-\$13,967			
22									
23	May Payments (Lead) Lag Days					-0.62			
24									

Northern Utilities, NH
Calculation of Operating Lease Lead Lag Days
12 Months Ended Dec 31, 2016
June Payments

5/18/2017
12:40:35 PM

Line No	Description of Payment	Payment Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Check Date	(Lead) Lag Days	Weighted Dollar Days
			<u>Start</u>	<u>End</u>					
1	CITIZENS ASSET FINANCE INC	\$ 16,053	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	7/1/16 12:00 PM	15.5 \$	248,828
3	CITIZENS ASSET FINANCE INC	\$ 6,929	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	7/1/16 12:00 PM	15.5 \$	107,394
2	CITIZENS ASSET FINANCE INC	\$ 456	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	7/1/16 12:00 PM	15.5 \$	7,066
4	D L PETERSON	\$ 714	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM	7/1/16 12:00 PM	-15.0 \$	(10,713)
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16		<u>\$ 24,152</u>							<u>\$ 352,575</u>
17									
18									
19		Total June Payments				\$24,152			
20									
21		Total Weighted Dollar Days				\$352,575			
22									
23		June Payments (Lead) Lag Days				14.60			
24									

Northern Utilities, NH
Calculation of Operating Lease Lead Lag Days
12 Months Ended Dec 31, 2016
July Payments

5/18/2017
12:40:35 PM

Line No	Description of Payment	Payment Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Check Date	(Lead) Lag Days	Weighted Dollar Days
			Start	End					
2	CITIZENS ASSET FINANCE INC	\$ 16,053	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM	7/14/16 12:00 PM	-2.0 \$	(32,107)
4	CITIZENS ASSET FINANCE INC	\$ 6,929	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM	7/14/16 12:00 PM	-2.0 \$	(13,857)
3	CITIZENS ASSET FINANCE INC	\$ 456	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM	7/14/16 12:00 PM	-2.0 \$	(912)
1	CITIZENS ASSET FINANCE INC	\$ 74	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM	7/13/16 12:00 PM	-3.0 \$	(223)
5	D L PETERSON	\$ 713	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM	7/25/16 12:00 PM	-22.0 \$	(15,697)
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16		<u>\$ 24,226</u>							<u>\$ (62,795)</u>
17									
18									
19	Total July Payments					\$24,226			
20									
21	Total Weighted Dollar Days					-\$62,795			
22									
23	July Payments (Lead) Lag Days					-2.59			
24									

Northern Utilities, NH
Calculation of Operating Lease Lead Lag Days
12 Months Ended Dec 31, 2016
August Payments

5/18/2017
12:40:35 PM

Line No	Description of Payment	Payment Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Check Date	(Lead) Lag Days	Weighted Dollar Days
			<u>Start</u>	<u>End</u>					
2	CITIZENS ASSET FINANCE INC	\$ 16,053	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM	8/18/16 12:00 PM	2.0 \$	32,107
5	CITIZENS ASSET FINANCE INC	\$ 6,929	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM	8/18/16 12:00 PM	2.0 \$	13,857
1	CITIZENS ASSET FINANCE INC	\$ 456	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM	8/18/16 12:00 PM	2.0 \$	912
3	CITIZENS ASSET FINANCE INC	\$ 28,512	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM	8/18/16 12:00 PM	2.0 \$	57,024
4	CITIZENS ASSET FINANCE INC	\$ 52	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM	8/18/16 12:00 PM	2.0 \$	103
6	D L PETERSON	\$ 711	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM	8/31/16 12:00 PM	-15.5 \$	(11,026)
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18		<u>\$ 52,713</u>							<u>\$ 92,977</u>
19									
20									
21		Total August Payments				\$52,713			
22									
23		Total Weighted Dollar Days				\$92,977			
24									
25		August Payments (Lead) Lag Days				1.76			
26									
27									
28	Note: Buyback of vehicles are included with other vehicle clearing account expenses.								
29									
30									

Northern Utilities, NH
Calculation of Operating Lease Lead Lag Days
12 Months Ended Dec 31, 2016
September Payments

5/18/2017
12:40:35 PM

Line No	Description of Payment	Payment Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Check Date	(Lead) Lag Days	Weighted Dollar Days
			<u>Start</u>	<u>End</u>					
1	CITIZENS ASSET FINANCE INC	\$ 14,008	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM	9/16/16 12:00 PM	0.5 \$	7,004
4	CITIZENS ASSET FINANCE INC	\$ 6,929	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM	9/16/16 12:00 PM	0.5 \$	3,464
3	CITIZENS ASSET FINANCE INC	\$ 456	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM	9/16/16 12:00 PM	0.5 \$	228
2	CITIZENS ASSET FINANCE INC	\$ 171	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM	9/16/16 12:00 PM	0.5 \$	85
5	D L PETERSON	\$ 710	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	10/3/16 12:00 PM	-13.0 \$	(9,236)
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16		<u>\$ 22,274</u>							<u>\$ 1,546</u>
17									
18									
19		Total September Payments				\$22,274			
20									
21		Total Weighted Dollar Days				\$1,546			
22									
23		September Payments (Lead) Lag Days				0.07			
24									
25									
26									
27									

Note: Buyback of vehicles are included with other vehicle clearing account expenses.

Northern Utilities, NH
Calculation of Operating Lease Lead Lag Days
12 Months Ended Dec 31, 2016
October Payments

5/18/2017
12:40:35 PM

Line No	Description of Payment	Payment Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Check Date	(Lead) Lag Days	Weighted Dollar Days
			<u>Start</u>	<u>End</u>					
3	CITIZENS ASSET FINANCE INC	\$ 14,008	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	10/19/16 12:00 PM	3.0 \$	42,025
4	CITIZENS ASSET FINANCE INC	\$ 6,929	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	10/19/16 12:00 PM	3.0 \$	20,786
1	CITIZENS ASSET FINANCE INC	\$ 456	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	10/19/16 12:00 PM	3.0 \$	1,368
2	CITIZENS ASSET FINANCE INC	\$ 585	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	10/19/16 12:00 PM	3.0 \$	1,756
5	D L PETERSON	\$ 708	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	10/26/16 12:00 PM	-20.5 \$	(14,519)
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16		<u>\$ 22,687</u>							<u>\$ (11,395)</u>
17									
18									
19	Total October Payments					\$22,687			
20									
21	Total Weighted Dollar Days					-\$11,395			
22									
23	October Payments (Lead) Lag Days					-0.50			
24									

Northern Utilities, NH
Calculation of Operating Lease Lead Lag Days
12 Months Ended Dec 31, 2016
November Payments

5/18/2017
12:40:35 PM

Line No	Description of Payment	Payment Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Check Date	(Lead) Lag Days	Weighted Dollar Days
			<u>Start</u>	<u>End</u>					
2	CITIZENS ASSET FINANCE INC	\$ 14,008	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	11/23/16 12:00 PM	7.5 \$	105,064
3	CITIZENS ASSET FINANCE INC	\$ 6,929	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	11/23/16 12:00 PM	7.5 \$	51,965
1	CITIZENS ASSET FINANCE INC	\$ 456	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	11/23/16 12:00 PM	7.5 \$	3,419
5	CITIZENS ASSET FINANCE INC	\$ 544	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	11/28/16 12:00 PM	12.5 \$	6,794
4	D L PETERSON	\$ 705	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	11/23/16 12:00 PM	-23.0 \$	(16,212)
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16		<u>\$ 22,641</u>							<u>\$ (5,999)</u>
17									
18									
19		Total November Payments				\$22,641			
20									
21		Total Weighted Dollar Days				-\$5,999			
22									
23		November Payments (Lead) Lag Days				-0.26			
24									

Northern Utilities, NH
Calculation of Operating Lease Lead Lag Days
12 Months Ended Dec 31, 2016
December Payments

5/18/2017
12:40:35 PM

Line No	Description of Payment	Payment Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Check Date	(Lead) Lag Days	Weighted Dollar Days
			<u>Start</u>	<u>End</u>					
4	CITIZENS ASSET FINANCE INC	\$ 14,008	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	12/27/16 12:00 PM	11.0 \$	154,093
5	CITIZENS ASSET FINANCE INC	\$ 6,929	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	12/27/16 12:00 PM	11.0 \$	76,215
1	CITIZENS ASSET FINANCE INC	\$ 456	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	12/27/16 12:00 PM	11.0 \$	5,015
3	CITIZENS ASSET FINANCE INC	\$ 577	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	12/27/16 12:00 PM	11.0 \$	6,349
2	CITIZENS ASSET FINANCE INC	\$ 17,991	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	12/27/16 12:00 PM	11.0 \$	197,896
6	D L PETERSON	\$ 705	1/1/17 12:00 AM	2/1/17 12:00 AM	31	1/16/17 12:00 PM	12/27/16 12:00 PM	-20.0 \$	(14,098)
7									
8									
9									
10									
11									
12									
13									
14									
15									
16		<u>\$ 40,666</u>							<u>\$ 195,161</u>
17									
18									
19		Total December Payments				\$40,666			
20									
21		Total Weighted Dollar Days				\$195,161			
22									
23		December Payments (Lead) Lag Days				4.80			
24									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Credit Card Payment Fees Lead Lag Days
12 Months Ended Dec 31, 2016
Credit Card Payment Fees

5/18/2017
1:43:01 PM

30-40-21-00-9210109 CREDIT CARD FEES

Line No	Month	Expense Amount	Service Period Start End		Total Days	Midpoint Service Period	EFT Date	(Lead) Lag Days	Weighted Dollar Days
1	January	\$ 7,781	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	2/2/16 12:00 PM	17.0	\$ 132,274
2	February	\$ 7,933	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	3/2/16 12:00 PM	16.0	\$ 126,927
3	March	\$ 11,331	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	4/4/16 12:00 PM	19.0	\$ 215,282
4	April	\$ 17,954	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	5/2/16 12:00 PM	16.5	\$ 296,244
5	May	\$ 10,274	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	6/2/16 12:00 PM	17.0	\$ 174,651
6	June	\$ 8,880	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	7/5/16 12:00 PM	19.5	\$ 173,170
7	July	\$ 6,471	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM	8/2/16 12:00 PM	17.0	\$ 110,003
8	August	\$ 4,922	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM	9/2/16 12:00 PM	17.0	\$ 83,679
9	September	\$ 4,992	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM	10/3/16 12:00 PM	17.5	\$ 87,362
10	October	\$ 4,987	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	11/2/16 12:00 PM	17.0	\$ 84,777
11	November	\$ 4,732	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	12/2/16 12:00 PM	16.5	\$ 78,076
12	December	\$ 5,281	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	1/3/17 12:00 PM	18.0	\$ 95,050
13									
14									
15									
16		<u>\$ 95,537</u>			<u>366</u>				<u>\$ 1,657,495</u>
17									
18									
19		Total Credit Card Payment Fees				\$95,537			
20									
21		Total Weighted Dollar Days				\$1,657,495			
22									
23		Credit Card Payment Fees (Lead) Lag Days				17.35			
24									
25									
26	Credit card fees on payment remittance by Customers.								
27									
28									

Northern Utilities, Inc. - New Hampshire Division
Outside Services for IRP Program Lead Lag Calculation
12 Months Ended Dec 31, 2016

5/18/2017
1:44:15 PM

30.40.13.00.923.06.00: OS IRP EXPENSE-NH

Line No	Vendor	2016 Payment Amount	Service From	Service To	Total Days	Mid-Point Calculation Date	Payment Date	(Lead) Lag Days	Weighted Dollar Days
1									
2	IHS GLOBAL INC	\$204	5/6/16 12:00 AM	5/7/16 12:00 AM	1	5/6/16 12:00 PM	5/6/16 12:00 PM	0.00	\$0
3	IHS GLOBAL INC	\$6,473	7/1/16 12:00 AM	7/1/17 12:00 AM	365	12/30/16 12:00 PM	7/21/16 12:00 PM	(162.00)	-\$1,048,705
4		\$6,677						(157.05)	-\$1,048,705
5									
6	Expense Amount	\$61,850							
7									
8									
9									
10									
11									
12									
13									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Other Operation & Maintenance Expense Lead Lag Days
12 Months Ended Dec 31, 2016

5/18/2017
1:13:11 PM

Line No	Strata	Sample Population	Sample Size	Sample	Sample Weighted Dollars	Population Adjusted Weighted Dollars	Lag Days
1	<u>Stratum 1 - Largest 25 vouchers</u>	\$355,716	25	\$335,716	\$25,711,901	\$25,711,901	72.28
2							
3	<u>Stratum 2 - Every 3rd voucher down to \$1,500</u>	\$496,557	52	\$163,704	\$4,330,169	\$13,134,549	26.45
4							
5	<u>Stratum 3 - Every 25th voucher down to \$250</u>	\$423,065	26	\$16,392	\$499,428	\$12,890,219	30.47
6							
7	<u>Stratum 4 - Every 100th voucher under \$250</u>	\$124,050	20	\$1,135	\$33,216	\$3,630,230	29.26
8							
9	Total	<u>\$1,399,388</u>	<u>123</u>	<u>\$516,947</u>	<u>\$30,574,714</u>	<u>\$55,366,900</u>	<u>39.57</u>

VEND_CODE	VOUCHER_NO	ACCT_CODE	PAYMENT_DATE	Sample Amount	SVC_START_DATE	SVC_END_DATE	SERVICE DAYS LAG	Service Period Midpoint	Lag Days	Weighted Dollars Days	Account Description
AMEC E&E INC	626817	304017009320100	9/14/16 12:00 PM	26,714.56	7/16/16 12:00 AM	8/12/16 12:00 AM	27.00	7/29/16 12:00 PM	47.00	\$1,255,584	ERC MAINTENANCE COSTS - NH
ROACH RUPRECH	613855	304000002420404	5/18/16 12:00 PM	24,371.59	4/1/16 12:00 AM	5/1/16 12:00 AM	30.00	4/16/16 12:00 AM	32.50	\$792,077	ACCRUED LEGAL-REGULATORY-NH
ROACH RUPRECH	618526	304000002420404	6/27/16 12:00 PM	24,096.93	5/1/16 12:00 AM	6/1/16 12:00 AM	31.00	5/16/16 12:00 PM	42.00	\$1,012,071	ACCRUED LEGAL-REGULATORY-NH
A TO Z LANDSCAP	610234	304080008870000	5/4/16 12:00 PM	23,187.00	4/7/16 12:00 AM	4/8/16 12:00 AM	1.00	4/7/16 12:00 PM	27.00	\$626,049	MAINT OF MAINS - NH
ROACH RUPRECH	610104	304000002420404	4/18/16 12:00 PM	20,592.93	3/1/16 12:00 AM	4/1/16 12:00 AM	31.00	3/16/16 12:00 PM	33.00	\$679,567	ACCRUED LEGAL-REGULATORY-NH
SHER PHILIP	615297	304000002420404	6/1/16 12:00 PM	20,533.28	8/16/15 12:00 AM	10/19/15 12:00 AM	64.00	9/17/15 12:00 AM	258.50	\$5,307,853	ACCRUED LEGAL-REGULATORY-NH
DAMAGES NU	626517	304080009230000									OS- LEGAL CLAIMS AND LITIGATIONS
DAMAGES NU	626569	304080009230000	8/31/16 12:00 PM	20,000.00	2/20/15 12:00 AM	8/18/15 12:00 AM	179.00	5/20/15 12:00 PM	469.00	\$9,380,000	OS LEGAL - LOCAL-NH-DOC-ONLY
ROACH RUPRECH	605868	304000002420404	3/9/16 12:00 PM	13,500.00	2/1/16 12:00 AM	3/1/16 12:00 AM	29.00	2/15/16 12:00 PM	23.00	\$310,500	ACCRUED LEGAL-REGULATORY-NH
KUBRA DATA	600012	304021009030400	1/13/16 12:00 PM	11,886.53	11/30/15 12:00 AM	12/31/15 12:00 AM	31.00	12/15/15 12:00 PM	29.00	\$344,709	POSTAGE - NH
KUBRA DATA	624732	304021009030400	8/17/16 12:00 PM	11,690.78	6/30/16 12:00 AM	7/31/16 12:00 AM	31.00	7/15/16 12:00 PM	33.00	\$385,796	POSTAGE - NH
KUBRA DATA	604034	304021009030400	2/22/16 12:00 PM	11,367.46	12/31/15 12:00 AM	1/31/16 12:00 AM	31.00	1/15/16 12:00 PM	38.00	\$431,963	POSTAGE - NH
KUBRA DATA	611233	304021009030400	4/25/16 12:00 PM	11,254.07	2/29/16 12:00 AM	3/31/16 12:00 AM	31.00	3/15/16 12:00 PM	41.00	\$461,417	POSTAGE - NH
KUBRA DATA	607309	304021009030400	3/28/16 12:00 PM	11,203.12	1/31/16 12:00 AM	2/29/16 12:00 AM	29.00	2/14/16 12:00 PM	43.00	\$481,734	POSTAGE - NH
KUBRA DATA	614334	304021009030400	5/23/16 12:00 PM	11,168.89	3/31/16 12:00 AM	4/30/16 12:00 AM	30.00	4/15/16 12:00 AM	38.50	\$430,002	POSTAGE - NH
KUBRA DATA	622644	304021009030400	8/1/16 12:00 PM	11,115.51	5/31/16 12:00 AM	6/30/16 12:00 AM	30.00	6/15/16 12:00 AM	47.50	\$527,987	POSTAGE - NH
KUBRA DATA	634625	304021009030400	11/2/16 12:00 PM	11,039.07	8/31/16 12:00 AM	9/30/16 12:00 AM	30.00	9/15/16 12:00 AM	48.50	\$535,395	POSTAGE - NH
KUBRA DATA	617593	304021009030400	6/20/16 12:00 PM	10,937.16	4/30/16 12:00 AM	5/31/16 12:00 AM	31.00	5/15/16 12:00 PM	36.00	\$393,738	POSTAGE - NH
KUBRA DATA	637265	304021009030400	11/28/16 12:00 PM	10,411.84	9/30/16 12:00 AM	10/31/16 12:00 AM	31.00	10/15/16 12:00 PM	44.00	\$458,121	POSTAGE - NH
KUBRA DATA	641221	304021009030400	12/21/16 12:00 PM	10,352.04	10/31/16 12:00 AM	11/30/16 12:00 AM	30.00	11/15/16 12:00 AM	36.50	\$377,849	POSTAGE - NH
KUBRA DATA	629998	304021009030400	9/28/16 12:00 PM	10,234.28	7/31/16 12:00 AM	8/31/16 12:00 AM	31.00	8/15/16 12:00 PM	44.00	\$450,308	POSTAGE - NH
AMEC E&E INC	622142	304017009320100	8/15/16 12:00 PM	8,613.00	6/11/16 12:00 AM	7/15/16 12:00 AM	34.00	6/28/16 12:00 AM	48.50	\$417,731	ERC MAINTENANCE COSTS - NH
MSR UTILITY	621901	304080008870400	7/28/16 12:00 PM	7,644.00	6/16/16 12:00 AM	6/16/16 12:00 AM	6.00	6/13/16 12:00 AM	45.50	\$347,802	CORROSION BRIDGES - NH
GAS TECHNOLOGY	612508	304080008740000	5/12/16 12:00 PM	6,901.09	4/20/16 12:00 AM	4/21/16 12:00 AM	1.00	4/20/16 12:00 PM	22.00	\$151,824	MISC EXP MAINS AND SERVICES - NH
GAS TECHNOLOGY	612508	304080008740000	5/12/16 12:00 PM	6,901.09	4/20/16 12:00 AM	4/21/16 12:00 AM	1.00	4/20/16 12:00 PM	22.00	\$151,824	MISC EXP MAINS AND SERVICES - NH
MERCHANTS AUT	637567	304000001841203	11/28/16 12:00 PM	6,513.02	10/10/16 12:00 AM	12/1/16 12:00 AM	52.00	11/16/16 12:00 AM	23.50	\$153,056	LT FUEL - NH
NORTHEAST GAS	604456	304080009300300	2/29/16 12:00 PM	6,229.50	1/1/16 12:00 AM	1/1/17 12:00 AM	366.00	7/2/16 12:00 AM	-123.50	\$-769,343	DUES TO ORGANIZATIONS - NH
AECOM	602941	304017009320100	2/29/16 12:00 PM	6,118.75	1/2/16 12:00 AM	1/29/16 12:00 AM	27.00	1/15/16 12:00 PM	45.00	\$275,344	ERC MAINTENANCE COSTS - NH
AECOM	597013	304017009320100	1/6/16 12:00 PM	5,852.87	10/25/15 12:00 AM	11/25/15 12:00 AM	31.00	11/9/15 12:00 PM	58.00	\$339,466	ERC MAINTENANCE COSTS - NH
MERCHANTS AUT	629116	304000001841203	9/21/16 12:00 PM	5,772.08	8/8/16 12:00 AM	9/8/16 12:00 AM	31.00	8/23/16 12:00 PM	29.00	\$167,390	LT FUEL - NH
DAMAGES NU	619910	304080008920000	7/7/16 12:00 PM	5,688.20	6/14/16 12:00 AM	6/15/16 12:00 AM	1.00	6/14/16 12:00 PM	23.00	\$130,829	MAINT OF SERVICES - NH
MERCHANTS AUT	633876	304000001841203	10/26/16 12:00 PM	5,621.86	9/9/16 12:00 AM	10/10/16 12:00 AM	31.00	9/24/16 12:00 PM	32.00	\$179,900	LT FUEL - NH
OMARK CONS	619517	304080008740500	7/14/16 12:00 PM	5,243.61	6/19/16 12:00 AM	6/26/16 12:00 AM	7.00	6/22/16 12:00 PM	22.00	\$115,359	SERVICE LINE SURVEY - NH
MERCHANTS AUT	604419	304000001841203	2/24/16 12:00 PM	4,914.25	1/11/16 12:00 AM	3/1/16 12:00 AM	50.00	2/5/16 12:00 AM	19.50	\$95,828	LT FUEL - NH
MERCHANTS AUT	606948	304000001841203	3/21/16 12:00 PM	4,573.68	2/8/16 12:00 AM	3/8/16 12:00 AM	29.00	2/22/16 12:00 PM	28.00	\$128,063	LT FUEL - NH
NATIONAL WRECK	616003	304000001841301	6/6/16 12:00 PM	4,459.16	4/25/16 12:00 AM	5/17/16 12:00 AM	22.00	5/6/16 12:00 AM	31.50	\$140,464	HT MAINT & PARTS - NH
OMARK CONS	622821	304080008740500	8/4/16 12:00 PM	4,370.19	7/17/16 12:00 AM	7/24/16 12:00 AM	7.00	7/20/16 12:00 PM	15.00	\$65,553	SERVICE LINE SURVEY - NH
EVERSOURCE	604668	304080009211600	3/3/16 12:00 PM	4,312.66	12/22/15 12:00 AM	2/17/16 12:00 AM	57.00	1/19/16 12:00 PM	44.00	\$189,757	SERVICE CENTER EXPENSED - SHARED NH
EVERSOURCE	622420	304080009211600	7/28/16 12:00 PM	4,186.66	6/1/16 12:00 AM	7/20/16 12:00 AM	49.00	6/25/16 12:00 PM	33.00	\$138,160	SERVICE CENTER EXPENSED - SHARED NH
EVERSOURCE	634663	304080009211600	11/3/16 12:00 PM	4,015.47	9/19/16 12:00 AM	10/19/16 12:00 AM	30.00	10/4/16 12:00 AM	30.50	\$122,472	SERVICE CENTER EXPENSED - SHARED NH
OMARK CONS	621900	304080008740500	7/28/16 12:00 PM	3,981.25	7/10/16 12:00 AM	7/17/16 12:00 AM	7.00	7/13/16 12:00 PM	15.00	\$59,719	SERVICE LINE SURVEY - NH
EVERSOURCE	608140	304080009211600	3/31/16 12:00 PM	3,939.34	1/25/16 12:00 AM	3/18/16 12:00 AM	53.00	2/20/16 12:00 PM	40.00	\$157,574	SERVICE CENTER EXPENSED - SHARED NH
UTILITIES INDUS	627932	304026008930000	9/15/16 12:00 PM	3,737.13	8/23/16 12:00 AM	8/24/16 12:00 AM	1.00	8/23/16 12:00 PM	23.00	\$85,954	MAINT OF MTRS & HOUSE REGULTRS - NH
EVERSOURCE	614908	304080009211600	5/26/16 12:00 PM	3,408.21	4/1/16 12:00 AM	5/18/16 12:00 AM	47.00	4/24/16 12:00 PM	32.00	\$109,063	SERVICE CENTER EXPENSED - SHARED NH
AECOM	639077	304017009320100	12/12/16 12:00 PM	3,155.00	10/29/16 12:00 AM	11/25/16 12:00 AM	27.00	11/11/16 12:00 PM	31.00	\$97,805	ERC MAINTENANCE COSTS - NH
NEW ENGLAND CP	601554	304080008920100	2/17/16 12:00 PM	3,100.00	1/18/16 12:00 AM	1/23/16 12:00 AM	5.00	1/20/16 12:00 PM	28.00	\$86,800	CORROSION SERVICES- NH
OMARK CONS	615991	304080008740500	6/9/16 12:00 PM	2,878.05	5/22/16 12:00 AM	5/29/16 12:00 AM	7.00	5/25/16 12:00 PM	15.00	\$43,171	SERVICE LINE SURVEY - NH
STEVENS BUSINES	610353	304021009030502	4/25/16 12:00 PM	2,686.42	3/1/16 12:00 AM	4/1/16 12:00 AM	31.00	3/16/16 12:00 PM	40.00	\$107,457	COST OF COLLECTIONS - NH
STAUFFER GLOVE	619563	304000001840600	7/21/16 12:00 PM	2,591.23	6/27/16 12:00 AM	6/28/16 12:00 AM	1.00	6/27/16 12:00 PM	24.00	\$62,189	SMALL TOOLS - NH
SENSIT TECH	605863	304000001840600	3/9/16 12:00 PM	2,573.30	2/12/16 12:00 AM	2/13/16 12:00 AM	1.00	2/12/16 12:00 PM	26.00	\$66,906	SMALL TOOLS - NH
KUBRA DATA	622644	304021009030504	8/1/16 12:00 PM	2,524.47	5/31/16 12:00 AM	6/30/16 12:00 AM	30.00	5/16/16 12:00 AM	47.50	\$119,912	O/S VENDOR SERVICES - MAILROOM - NH
AMEC E&E INC	598233	304017009320100	1/18/16 12:00 PM	2,490.50	11/1/15 12:00 AM	12/23/15 12:00 AM	52.00	11/27/15 12:00 AM	52.50	\$130,751	ERC MAINTENANCE COSTS - NH
STAUFFER GLOVE	620405	304000001840600	7/21/16 12:00 PM	2,455.22	6/27/16 12:00 AM	6/28/16 12:00 AM	1.00	6/27/16 12:00 PM	24.00	\$58,925	SMALL TOOLS - NH
KUBRA DATA	611233	304021009030504	4/25/16 12:00 PM	2,435.98	2/29/16 12:00 AM	3/31/16 12:00 AM	31.00	3/15/16 12:00 PM	41.00	\$99,875	O/S VENDOR SERVICES - MAILROOM - NH
KUBRA DATA	607309	304021009030504	3/28/16 12:00 PM	2,414.37	1/31/16 12:00 AM	2/29/16 12:00 AM	29.00	2/14/16 12:00 PM	43.00	\$103,818	O/S VENDOR SERVICES - MAILROOM - NH
STAUFFER GLOVE	600487	304000001840600	2/4/16 12:00 PM	2,379.77	1/11/16 12:00 AM	1/12/16 12:00 AM	1.00	1/11/16 12:00 PM	24.00	\$57,114	SMALL TOOLS - NH
OMARK CONS	616825	304080008740500	6/16/16 12:00 PM	2,312.45	5/29/16 12:00 AM	6/5/16 12:00 AM	7.00	6/1/16 12:00 PM	15.00	\$34,687	SERVICE LINE SURVEY - NH
CIULLA MEL	634271	304080008740100	10/31/16 12:00 PM	2,260.00	8/15/16 12:00 AM	8/20/16 12:00 AM	5.00	8/17/16 12:00 PM	75.00	\$169,500	GAS SYSTEM TRAINING - NH
STAUFFER GLOVE	607348	304000001840600	4/14/16 12:00 PM	2,234.37	3/18/16 12:00 AM	3/19/16 12:00 AM	1.00	3/18/16 12:00 PM	27.00	\$60,328	SMALL TOOLS - NH
STAUFFER GLOVE	632109	304000001840600	10/27/16 12:00 PM	2,215.38	10/10/16 12:00 AM	10/11/16 12:00 AM	1.00	10/10/16 12:00 PM	17.00	\$37,662	SMALL TOOLS - NH
OMARK CONS	614914	304080008740500	5/26/16 12:00 PM	2,100.00	5/15/16 12:00 AM	5/22/16 12:00 AM	7.00	5/18/16 12:00 PM	8.00	\$16,800	SERVICE LINE SURVEY - NH
UTILITIES INDUS	638035	304080008930000	12/1/16 12:00 PM	1,970.74	10/31/16 12:00 AM	11/1/16 12:00 AM	1.00	10/31/16 12:00 PM	31.00	\$61,093	MAINT OF MTRS & HOUSE REGULTRS - NH
YANKEE CLIP	634717	304017009320100	11/2/16 12:00 PM	1,950.00	10/9/16 12:00 AM	10/10/16 12:00 AM	1.00	10/9/16 12:00 PM	24.00	\$46,800	ERC MAINTENANCE COSTS - NH
ROACH RUPRECH	630395	304000002420404	10/3/16 12:00 PM	1,934.50	8/1/16 12:00 AM	8/5/16 12:00 AM	4.00	8/3/16 12:00 AM	61.50	\$118,972	ACCRUED LEGAL-REGULATORY-NH
NFCO	621128	304000002420408	8/1/16 12:00 PM	1,905.00	6/20/16 12:00 AM	6/21/16 12:00 AM	1.00	6/20/16 12:00 PM	42.00	\$80,010	ACCRUED LEGAL-CLAIMS AND LITIGATION
FAIRPOINT 1	606691	304026008520000	3/21/16 12:00 PM	1,813.77	1/30/16 12:00 AM	2/29/16 12:00 AM	30.00	2/14/16 12:00 AM	36.50	\$66,203	COMMUNICATION SYSTEM EXP - NU NH
FAIRPOINT 1	616570	304026008520000	6/20/16 12:00 PM	1,813.77	4/30/16 12:00 AM	5/31/16 12:00 AM	31.00	5/15/16 12:00 PM	36.00	\$65,296	COMMUNICATION SYSTEM EXP - NU NH
FAIRPOINT 1	603299	304026008520000	2/22/16 12:00 PM	1,812.70	12/31/15 12:00 AM	1/31/16 12:00 AM	31.00	1/15/16 12:00 PM	38.00	\$68,883	COMMUNICATION SYSTEM EXP - NU NH
STEVENS BUSINES	636845	304021009030502	11/28/16 12:00 PM	1,776.85	10/1/16 12:00 AM	11/1/16 12:00 AM	31.00	10/16/16 12:00 PM	43.00	\$76,405	COST OF COLLECTIONS - NH
KUBRA DATA	614336	304021009030400	5/23/16 12:00 PM	1,716.98	3/31						

VEND_CODE	VOUCHER_NO	ACCT_CODE	PAYMENT_DATE	Sample Amount	SVC_START_DATE	SVC_END_DATE	SERVICE DAYS LAG	Service Period Midpoint	Lag Days	Weighted Dollars	Account Description
FAIRPOINT 1	632886	304026008520000	10/19/16 12:00 PM	1,685.37	8/31/16 12:00 AM	9/30/16 12:00 AM	30.00	9/15/16 12:00 AM	34.50	\$58,145	COMMUNICATION SYSTEM EXP - NU NH
STEVENS BUSINES	641862	304021009030502	12/28/16 12:00 PM	1,679.51	11/1/16 12:00 AM	12/1/16 12:00 AM	30.00	11/16/16 12:00 AM	42.50	\$71,379	COST OF COLLECTIONS - NH
STEVENS BUSINES	606159	304021009030502	3/28/16 12:00 PM	1,666.02	2/1/16 12:00 AM	3/1/16 12:00 AM	29.00	2/15/16 12:00 PM	42.00	\$69,973	COST OF COLLECTIONS - NH
POWELL CONTROLS	619553	304080008990000	7/18/16 12:00 PM	1,638.92	4/19/16 12:00 AM	4/20/16 12:00 AM	1.00	4/19/16 12:00 PM	90.00	\$147,503	MAINT OF REG EQUIP (DISTRICT)- NH
RAM PRINTING NH	613857	304024009305300	5/25/16 12:00 PM	1,573.78	4/30/16 12:00 AM	5/1/16 12:00 AM	1.00	4/30/16 12:00 PM	25.00	\$39,345	CUSTOMER COMMUNICATION-NH
OMARK CONS	633375	304080008740500	10/27/16 12:00 PM	1,531.60	10/9/16 12:00 AM	10/16/16 12:00 AM	7.00	10/12/16 12:00 PM	15.00	\$22,974	SERVICE LINE SURVEY - NH
LEE HARRIS	604453	304080008910100	2/25/16 12:00 PM	1,490.00	2/3/16 12:00 AM	2/4/16 12:00 AM	1.00	2/3/16 12:00 PM	22.00	\$32,780	MAIN DISTRI SCADA -DISTRIBUTION- NH
KUBRA DATA	624732	304021009030200	8/17/16 12:00 PM	1,347.10	6/30/16 12:00 AM	7/31/16 12:00 AM	31.00	7/15/16 12:00 PM	33.00	\$44,454	BILLG/ACCT FORMS/SUPPLIES - NH
NEUCO	622756	304080008920000	8/8/16 12:00 PM	1,280.00	7/18/16 12:00 AM	7/23/16 12:00 AM	5.00	7/20/16 12:00 PM	19.00	\$24,320	MAINT OF SERVICES - NH
NEUCO	624927	304080008920000	8/24/16 12:00 PM	1,216.00	8/1/16 12:00 AM	8/6/16 12:00 AM	5.00	8/3/16 12:00 PM	21.00	\$25,536	MAINT OF SERVICES - NH
YANKEE CLIP	625153	304017009320100	8/22/16 12:00 PM	1,147.37	3/1/16 12:00 AM	9/30/16 12:00 AM	213.00	6/15/16 12:00 PM	68.00	\$78,021	ERC MAINTENANCE COSTS - NH
MULCARE ENGINEE	610177	304000001840600	4/18/16 12:00 PM	1,049.02	3/2/16 12:00 AM	3/3/16 12:00 AM	1.00	3/2/16 12:00 PM	47.00	\$49,304	SMALL TOOLS - NH
NEUCO	627251	304080008920000	9/12/16 12:00 PM	1,024.00	8/15/16 12:00 AM	8/19/16 12:00 AM	4.00	8/17/16 12:00 AM	26.50	\$27,136	MAINT OF SERVICES - NH
NORTHEAST GAS	614534	304080008850500	5/23/16 12:00 PM	950.00	3/18/16 12:00 AM	3/19/16 12:00 AM	1.00	3/18/16 12:00 PM	66.00	\$62,700	UNPROD TIME/OTHER - NH
NEUCO	621427	304080008920000	8/1/16 12:00 PM	768.00	7/5/16 12:00 AM	7/9/16 12:00 AM	4.00	7/7/16 12:00 AM	25.50	\$19,584	MAINT OF SERVICES - NH
JDH INSPECTION	634351	304080008740000	11/16/16 12:00 PM	717.00	10/11/16 12:00 AM	10/13/16 12:00 AM	2.00	10/12/16 12:00 AM	35.50	\$25,454	MISC EXP MAINS AND SERVICES - NH
PORTSMOUTH CA	618466	304000001841201	6/27/16 12:00 PM	672.82	6/15/16 12:00 AM	6/16/16 12:00 AM	1.00	6/15/16 12:00 PM	12.00	\$8,074	LT MAINT & PARTS - NH
FOUR SEASONS F	607642	304080008860000	3/28/16 12:00 PM	600.00	3/11/16 12:00 AM	3/12/16 12:00 AM	1.00	3/11/16 12:00 PM	17.00	\$10,200	T&D MAINT STRUCTURES & IMPROV - NH
HAWKINS SAFETY	603995	304000001840600	3/9/16 12:00 PM	550.70	2/11/16 12:00 AM	2/12/16 12:00 AM	1.00	2/11/16 12:00 PM	27.00	\$14,869	SMALL TOOLS - NH
ASSOCIATED CRED	606223	304021009030502	3/23/16 12:00 PM	510.74	2/1/16 12:00 AM	3/1/16 12:00 AM	29.00	2/15/16 12:00 PM	37.00	\$18,897	COST OF COLLECTIONS - NH
CASELLA	628545	304080009211600	9/22/16 12:00 PM	493.58	8/24/16 12:00 AM	8/31/16 12:00 AM	7.00	8/27/16 12:00 PM	26.00	\$12,833	SERVICE CENTER EXPENSED - SHARED NH
SENSIT TECH	598430	304000001840600	1/4/16 12:00 PM	461.94	11/20/15 12:00 AM	11/21/15 12:00 AM	1.00	11/20/15 12:00 PM	45.00	\$20,787	SMALL TOOLS - NH
NATIONAL WRECK	625066	304000001841301	8/17/16 12:00 PM	437.38	8/2/16 12:00 AM	8/3/16 12:00 AM	1.00	8/2/16 12:00 PM	15.00	\$6,561	HT MAINT & PARTS - NH
POWELL CONTROLS	610782	304080008910000	5/9/16 12:00 PM	403.26	4/5/16 12:00 AM	4/6/16 12:00 AM	1.00	4/5/16 12:00 PM	34.00	\$13,711	MAINT OF REG EQUIP (GATE STATION) - NH
FAIRPOINT 1	628177	304080009211700	9/19/16 12:00 PM	374.17	7/31/16 12:00 AM	8/30/16 12:00 AM	30.00	8/15/16 12:00 AM	35.50	\$13,283	TELEPHONE SERVICE - SERVICE CENTER - NH
CITY PORTS DPW	604043	304080009211600	2/25/16 12:00 PM	366.70	1/1/16 12:00 AM	2/1/16 12:00 AM	31.00	1/16/16 12:00 PM	40.00	\$14,668	SERVICE CENTER EXPENSED - SHARED NH
MAINE OXY SPEC	625867	304080008740000	8/24/16 12:00 PM	350.00	8/1/16 12:00 AM	8/1/17 12:00 AM	365.00	1/30/17 12:00 PM	-159.00	-\$55,650	MISC EXP MAINS AND SERVICES - NH
CREDIT COLLECT	632838	304021009030502	10/20/16 12:00 PM	326.43	9/1/16 12:00 AM	10/1/16 12:00 AM	30.00	9/16/16 12:00 AM	34.50	\$11,262	COST OF COLLECTIONS - NH
IMPERIAL BAG	610017	304080009211600	4/13/16 12:00 PM	304.94	2/2/16 12:00 AM	2/3/16 12:00 AM	1.00	2/2/16 12:00 PM	71.00	\$21,651	SERVICE CENTER EXPENSED - SHARED NH
PORTSMOUTH CA	625051	304000001841201	8/17/16 12:00 PM	286.32	8/2/16 12:00 AM	8/3/16 12:00 AM	1.00	8/2/16 12:00 PM	15.00	\$4,295	LT MAINT & PARTS - NH
STAUFFER GLOVE	638685	304000001840600	12/8/16 12:00 PM	261.98	11/18/16 12:00 AM	11/19/16 12:00 AM	1.00	11/18/16 12:00 PM	20.00	\$5,240	SMALL TOOLS - NH
F W WEBB	630412	304000001840600	10/3/16 12:00 PM	251.46	7/19/16 12:00 AM	7/20/16 12:00 AM	1.00	7/19/16 12:00 PM	76.00	\$19,111	SMALL TOOLS - NH
BELLE PEPPERS	601433	304080008740100	1/27/16 12:00 PM	240.63	1/14/16 12:00 AM	1/15/16 12:00 AM	1.00	1/14/16 12:00 PM	13.00	\$3,128	GAS SYSTEM TRAINING - NH
EVERSOURCE	608140	304080008910100	3/31/16 12:00 PM	203.62	2/1/16 12:00 AM	3/1/16 12:00 AM	29.00	2/15/16 12:00 PM	45.00	\$9,163	MAIN DISTRI SCADA -DISTRIBUTION- NH
NATIONAL WRECK	634280	304000001841201	10/31/16 12:00 PM	159.47	10/18/16 12:00 AM	10/19/16 12:00 AM	1.00	10/18/16 12:00 PM	13.00	\$2,073	LT MAINT & PARTS - NH
EVERSOURCE	611828	304080008910100	5/4/16 12:00 PM	136.61	3/1/16 12:00 AM	4/1/16 12:00 AM	31.00	3/16/16 12:00 PM	49.00	\$6,694	MAIN DISTRI SCADA -DISTRIBUTION- NH
PORTSMOUTH CA	613246	304000001841201	5/11/16 12:00 PM	114.43	5/5/16 12:00 AM	5/6/16 12:00 AM	1.00	5/5/16 12:00 PM	6.00	\$687	LT MAINT & PARTS - NH
R W LYALL	629205	304000001540100	10/3/16 12:00 PM	96.49	9/9/16 12:00 AM	9/10/16 12:00 AM	1.00	9/9/16 12:00 PM	24.00	\$2,316	MATERIALS & SUPPLIES - NH
FAIRPOINT 1	635607	304026008520000	11/14/16 12:00 PM	77.24	9/30/16 12:00 AM	10/30/16 12:00 AM	30.00	10/15/16 12:00 AM	30.50	\$2,356	COMMUNICATION SYSTEM EXP - NU NH
N H BRAGG & SON	603999	304000001840600	3/9/16 12:00 PM	65.37	2/12/16 12:00 AM	2/13/16 12:00 AM	1.00	2/12/16 12:00 PM	26.00	\$1,700	SMALL TOOLS - NH
ELSTER PERFECT	623839	304000001540100	8/10/16 12:00 PM	51.85	7/13/16 12:00 AM	7/14/16 12:00 AM	1.00	7/13/16 12:00 PM	28.00	\$1,452	MATERIALS & SUPPLIES - NH
EVERSOURCE	625885	304080008910100	8/25/16 12:00 PM	43.38	7/13/16 12:00 AM	8/11/16 12:00 AM	29.00	7/27/16 12:00 PM	29.00	\$1,258	MAIN DISTRI SCADA -DISTRIBUTION- NH
PORTSMOUTH CA	614855	304000001841201	5/25/16 12:00 PM	36.22	5/16/16 12:00 AM	5/17/16 12:00 AM	1.00	5/16/16 12:00 PM	9.00	\$326	LT MAINT & PARTS - NH
N H BRAGG & SON	628263	304000001840600	9/21/16 12:00 PM	31.74	8/24/16 12:00 AM	8/25/16 12:00 AM	1.00	8/24/16 12:00 PM	28.00	\$889	SMALL TOOLS - NH
MULCARE ENGINEE	617267	304000001540100	6/27/16 12:00 PM	28.54	6/13/16 12:00 AM	6/14/16 12:00 AM	1.00	6/13/16 12:00 PM	14.00	\$400	MATERIALS & SUPPLIES - NH
EVERSOURCE	601543	304080008870300	1/28/16 12:00 PM	22.21	12/10/15 12:00 AM	1/11/16 12:00 AM	32.00	12/26/15 12:00 AM	33.50	\$744	CORROSION MAINS - NH
UNITIL ENERGY	617478	304080008910100	6/27/16 12:00 PM	18.41	5/9/16 12:00 AM	6/8/16 12:00 AM	30.00	5/24/16 12:00 AM	34.50	\$635	MAIN DISTRI SCADA -DISTRIBUTION- NH
EVERSOURCE	610549	304080008910100	4/28/16 12:00 PM	16.68	3/10/16 12:00 AM	4/11/16 12:00 AM	32.00	3/26/16 12:00 AM	33.50	\$559	MAIN DISTRI SCADA -DISTRIBUTION- NH
MCJUNKIN RED	617249	304000001540100	6/27/16 12:00 PM	14.33	6/2/16 12:00 AM	6/3/16 12:00 AM	1.00	6/2/16 12:00 PM	25.00	\$358	MATERIALS & SUPPLIES - NH
MULCARE ENGINEE	632100	304000001540100	11/2/16 12:00 PM	9.65	6/13/16 12:00 AM	6/14/16 12:00 AM	1.00	6/13/16 12:00 PM	142.00	\$1,370	MATERIALS & SUPPLIES - NH
CHAS F CONNOLLY	600593	304000001540100	2/10/16 12:00 PM	5.43	1/12/16 12:00 AM	1/13/16 12:00 AM	1.00	1/12/16 12:00 PM	29.00	\$157	MATERIALS & SUPPLIES - NH
INDEPEND PIPE	615472	304000001540100	6/20/16 12:00 PM	2.50	5/24/16 12:00 AM	5/25/16 12:00 AM	1.00	5/24/16 12:00 PM	27.00	\$68	MATERIALS & SUPPLIES - NH
ROBBINS AUTO	613380	304000001841301	5/18/16 12:00 PM	0.85	5/3/16 12:00 AM	5/4/16 12:00 AM	1.00	5/3/16 12:00 PM	15.00	\$13	HT MAINT & PARTS - NH

516,946.71

30,574,714.15

Northern Utilities, Inc. - New Hampshire Division
Calculation of Service Company Charges Lead Lag Days
12 Months Ended Dec 31, 2016
Summary of Service Company Charges

5/18/2017
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Line No	Annual Charges	Total Payments	Lag Days	Weighted Dollar Days
1				
2	30-40-10-00-8130100 USC-GAS PRODUCTION OTHER - NH	\$403,550	40.45	\$16,324,500
3				
4	30-40-10-00-9030600 USC - CUSTOMER ACCOUNTING	\$1,094,212	40.49	\$44,309,883
5				
6	30-40-10-00-8510200 USC- DISPATCH	\$547,369		\$22,180,185
7	30-40-10-00-8510201 USC- DISPATCH - CAP	-\$197,970		-\$8,028,816
8	Total Acct 851	\$349,400	40.50	\$14,151,369
9				
10	30-40-10-00-8800200 USC-GAS DISTRIBUTION - NH	\$2,177,554		\$88,036,136
11	30-40-10-00-8800201 USC-GAS DISTRIBUTION - NH-CAP	-\$1,741,853		-\$70,426,917
12	Total Acct 880	\$435,701	40.42	\$17,609,220
13				
14	30-40-10-00-9230300 OS UNITIL SERVICE CORP-NH	\$4,057,771		\$164,116,418
15	30-40-10-00-9230301 OS UNITIL SERVICE CORP-NH-CAP	-\$630,589		-\$25,546,781
16	30-40-10-00-9230305 USC OUTSIDE SERVICES-DIRECT CHGS-NH	\$282,439		\$11,465,688
17	30-40-10-00-9230307 DIRECT CHARGES CAPITALIZED	-\$83,324		-\$3,379,825
18	Total Acct 923	\$3,626,296	40.44	\$146,655,501
19				
20	Total Base before Reclassification	\$5,909,159	40.45	\$239,050,473
21				
22	<u>Reclassification to Acct 926 of expenses included above</u>			
23				
24	30-40-10-00-9260210 FASB 87 - PENSION - USC ALLOC	\$520,927	40.44	\$21,067,448
25	30-40-10-00-9260812 FASB 87 - PENSION CAPITALIZED - USC ALLOC	-\$162,425	40.44	-\$6,568,829
26	30-40-10-00-9260910 SFAS 106 - PBOP - USC ALLOC	\$378,986	40.44	\$15,327,038
27	30-40-10-00-9261712 SFAS 106 - PBOP CAPITALIZED - USC ALLOC	-\$118,168	40.44	-\$4,778,977
28				
29				
30	Total Charges per General Ledger Excel Acct 926	\$5,289,839	40.46	\$214,003,793
31				
32		\$5,289,839		
33	Source of Data: Monthly Service Bills and Unitil Cashpool (Castran file)			
34				
35				

Northern Utilities, Inc. - New Hampshire Division
Calculation of Service Company Charges Lead Lag Days
12 Months Ended Dec 31, 2016
January Charges

5/18/2017
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Line			<u>Service Period</u>		Total	Midpoint	Date		Weighted
<u>No</u>	<u>Charges</u>	<u>Amount</u>	<u>Start</u>	<u>End</u>	<u>Days</u>	<u>Service Period</u>	<u>Paid</u>	<u>Lag Days</u>	<u>Dollar Days</u>
1									
2	<u>Base</u>								
3									
4	30-40-10-00-8130100 USC-GAS PRODUCTION OTHER - NH	\$32,667	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	2/26/16 12:00 PM	41.00	\$1,339,330
5	30-40-10-00-9030600 USC - CUSTOMER ACCOUNTING	\$97,499	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	2/26/16 12:00 PM	41.00	\$3,997,474
6	30-40-10-00-9230300 OS UNITIL SERVICE CORP-NH	\$324,261	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	2/26/16 12:00 PM	41.00	\$13,294,717
7	30-40-10-00-9230301 OS UNITIL SERVICE CORP-NH-CAP	-\$53,326	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	2/26/16 12:00 PM	41.00	-\$2,186,357
8	30-40-10-00-8510200 USC- DISPATCH	\$44,145	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	2/26/16 12:00 PM	41.00	\$1,809,945
9	30-40-10-00-8510201 USC- DISPATCH - CAP	-\$15,451	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	2/26/16 12:00 PM	41.00	-\$633,480
10	30-40-10-00-8800200 USC-GAS DISTRIBUTION - NH	\$172,167	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	2/26/16 12:00 PM	41.00	\$7,058,865
11	30-40-10-00-8800201 USC-GAS DISTRIBUTION - NH-CAP	-\$138,566	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	2/26/16 12:00 PM	41.00	-\$5,681,197
12	30-40-10-00-9230300 OS UNITIL SERVICE CORP-NH	\$4,615	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	2/26/16 12:00 PM	41.00	\$189,227
13	30-40-10-00-9230301 OS UNITIL SERVICE CORP-NH-CAP	-\$1,615	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	2/26/16 12:00 PM	41.00	-\$66,230
14	30-40-10-00-9230305 USC OUTSIDE SERVICES-DIRECT CHGS-NH	\$22,973	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	2/26/16 12:00 PM	41.00	\$941,896
15	30-40-10-00-9230307 DIRECT CHARGES CAPITALIZED	-\$7,028	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	2/26/16 12:00 PM	41.00	-\$288,165
16									
17									
18	Total Base	<u>\$482,342</u>						41.00	<u>\$19,776,025</u>
19									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Service Company Charges Lead Lag Days
12 Months Ended Dec 31, 2016
February Charges

5/18/2017
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Line			<u>Service Period</u>		Total	Midpoint	Date		Weighted
<u>No</u>	<u>Charges</u>	<u>Amount</u>	<u>Start</u>	<u>End</u>	<u>Days</u>	<u>Service Period</u>	<u>Paid</u>	<u>Lag Days</u>	<u>Dollar Days</u>
1									
2	<u>Base</u>								
3									
4	30-40-10-00-8130100 USC-GAS PRODUCTION OTHER - NH	\$33,416	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	3/25/16 12:00 PM	39.00	\$1,303,215
5	30-40-10-00-9030600 USC - CUSTOMER ACCOUNTING	\$91,809	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	3/25/16 12:00 PM	39.00	\$3,580,532
6	30-40-10-00-9230300 OS UNITIL SERVICE CORP-NH	\$335,720	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	3/25/16 12:00 PM	39.00	\$13,093,094
7	30-40-10-00-9230301 OS UNITIL SERVICE CORP-NH-CAP	-\$53,059	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	3/25/16 12:00 PM	39.00	-\$2,069,314
8	30-40-10-00-8510200 USC- DISPATCH	\$45,916	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	3/25/16 12:00 PM	39.00	\$1,790,725
9	30-40-10-00-8510201 USC- DISPATCH - CAP	-\$16,071	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	3/25/16 12:00 PM	39.00	-\$626,753
10	30-40-10-00-8800200 USC-GAS DISTRIBUTION - NH	\$177,778	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	3/25/16 12:00 PM	39.00	\$6,933,351
11	30-40-10-00-8800201 USC-GAS DISTRIBUTION - NH-CAP	-\$142,524	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	3/25/16 12:00 PM	39.00	-\$5,558,438
12	30-40-10-00-9230300 OS UNITIL SERVICE CORP-NH	\$2,095	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	3/25/16 12:00 PM	39.00	\$81,695
13	30-40-10-00-9230301 OS UNITIL SERVICE CORP-NH-CAP	-\$733	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	3/25/16 12:00 PM	39.00	-\$28,594
14	30-40-10-00-9230305 USC OUTSIDE SERVICES-DIRECT CHGS-NH	\$21,152	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	3/25/16 12:00 PM	39.00	\$824,937
15	30-40-10-00-9230307 DIRECT CHARGES CAPITALIZED	-\$7,028	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	3/25/16 12:00 PM	39.00	-\$274,109
16									
17									
18	Total Base	<u>\$488,470</u>						39.00	<u>\$19,050,340</u>
19									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Service Company Charges Lead Lag Days
12 Months Ended Dec 31, 2016
March Charges

5/18/2017
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Line			<u>Service Period</u>		Total	Midpoint	Date		Weighted
<u>No</u>	<u>Charges</u>	<u>Amount</u>	<u>Start</u>	<u>End</u>	<u>Days</u>	<u>Service Period</u>	<u>Paid</u>	<u>Lag Days</u>	<u>Dollar Days</u>
1									
2	<u>Base</u>								
3									
4	30-40-10-00-8130100 USC-GAS PRODUCTION OTHER - NH	\$44,727	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	4/25/16 12:00 PM	40.00	\$1,789,089
5	30-40-10-00-9030600 USC - CUSTOMER ACCOUNTING	\$136,788	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	4/25/16 12:00 PM	40.00	\$5,471,523
6	30-40-10-00-9230300 OS UNITIL SERVICE CORP-NH	\$446,451	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	4/25/16 12:00 PM	40.00	\$17,858,038
7	30-40-10-00-9230301 OS UNITIL SERVICE CORP-NH-CAP	-\$69,104	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	4/25/16 12:00 PM	40.00	-\$2,764,144
8	30-40-10-00-8510200 USC- DISPATCH	\$63,568	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	4/25/16 12:00 PM	40.00	\$2,542,722
9	30-40-10-00-8510201 USC- DISPATCH - CAP	-\$22,249	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	4/25/16 12:00 PM	40.00	-\$889,953
10	30-40-10-00-8800200 USC-GAS DISTRIBUTION - NH	\$239,955	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	4/25/16 12:00 PM	40.00	\$9,598,192
11	30-40-10-00-8800201 USC-GAS DISTRIBUTION - NH-CAP	-\$192,390	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	4/25/16 12:00 PM	40.00	-\$7,695,589
12	30-40-10-00-9230300 OS UNITIL SERVICE CORP-NH	\$2,890	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	4/25/16 12:00 PM	40.00	\$115,582
13	30-40-10-00-9230301 OS UNITIL SERVICE CORP-NH-CAP	-\$1,011	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	4/25/16 12:00 PM	40.00	-\$40,453
14	30-40-10-00-9230305 USC OUTSIDE SERVICES-DIRECT CHGS-NH	\$23,668	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	4/25/16 12:00 PM	40.00	\$946,737
15	30-40-10-00-9230307 DIRECT CHARGES CAPITALIZED	-\$7,619	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	4/25/16 12:00 PM	40.00	-\$304,762
16									
17									
18	Total Base	<u>\$665,675</u>						40.00	<u>\$26,626,981</u>
19									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Service Company Charges Lead Lag Days
12 Months Ended Dec 31, 2016
April Charges

5/18/2017
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Line			<u>Service Period</u>		Total	Midpoint	Date		Weighted
<u>No</u>	<u>Charges</u>	<u>Amount</u>	<u>Start</u>	<u>End</u>	<u>Days</u>	<u>Service Period</u>	<u>Paid</u>	<u>Lag Days</u>	<u>Dollar Days</u>
1									
2	<u>Base</u>								
3									
4	30-40-10-00-8130100 USC-GAS PRODUCTION OTHER - NH	\$32,163	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	5/25/16 12:00 PM	39.50	\$1,270,444
5	30-40-10-00-9030600 USC - CUSTOMER ACCOUNTING	\$83,531	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	5/25/16 12:00 PM	39.50	\$3,299,474
6	30-40-10-00-9230300 OS UNITIL SERVICE CORP-NH	\$304,093	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	5/25/16 12:00 PM	39.50	\$12,011,668
7	30-40-10-00-9230301 OS UNITIL SERVICE CORP-NH-CAP	-\$49,308	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	5/25/16 12:00 PM	39.50	-\$1,947,679
8	30-40-10-00-8510200 USC- DISPATCH	\$41,415	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	5/25/16 12:00 PM	39.50	\$1,635,873
9	30-40-10-00-8510201 USC- DISPATCH - CAP	-\$14,495	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	5/25/16 12:00 PM	39.50	-\$572,556
10	30-40-10-00-8800200 USC-GAS DISTRIBUTION - NH	\$176,849	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	5/25/16 12:00 PM	39.50	\$6,985,547
11	30-40-10-00-8800201 USC-GAS DISTRIBUTION - NH-CAP	-\$140,534	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	5/25/16 12:00 PM	39.50	-\$5,551,096
12	30-40-10-00-9230300 OS UNITIL SERVICE CORP-NH	\$6,250	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	5/25/16 12:00 PM	39.50	\$246,868
13	30-40-10-00-9230301 OS UNITIL SERVICE CORP-NH-CAP	-\$2,187	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	5/25/16 12:00 PM	39.50	-\$86,403
14	30-40-10-00-9230305 USC OUTSIDE SERVICES-DIRECT CHGS-NH	\$24,504	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	5/25/16 12:00 PM	39.50	\$967,900
15	30-40-10-00-9230307 DIRECT CHARGES CAPITALIZED	-\$7,577	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	5/25/16 12:00 PM	39.50	-\$299,292
16									
17									
18	Total Base	<u>\$454,702</u>						39.50	<u>\$17,960,748</u>
19									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Service Company Charges Lead Lag Days
12 Months Ended Dec 31, 2016
May Charges

5/18/2017
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Line			<u>Service Period</u>		Total	Midpoint	Date		Weighted
<u>No</u>	<u>Charges</u>	<u>Amount</u>	<u>Start</u>	<u>End</u>	<u>Days</u>	<u>Service Period</u>	<u>Paid</u>	<u>Lag Days</u>	<u>Dollar Days</u>
1									
2	<u>Base</u>								
3									
4	30-40-10-00-8130100 USC-GAS PRODUCTION OTHER - NH	\$31,747	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	6/30/16 12:00 PM	45.00	\$1,428,603
5	30-40-10-00-9030600 USC - CUSTOMER ACCOUNTING	\$79,388	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	6/30/16 12:00 PM	45.00	\$3,572,442
6	30-40-10-00-9230300 OS UNITIL SERVICE CORP-NH	\$322,934	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	6/30/16 12:00 PM	45.00	\$14,532,046
7	30-40-10-00-9230301 OS UNITIL SERVICE CORP-NH-CAP	-\$49,675	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	6/30/16 12:00 PM	45.00	-\$2,235,358
8	30-40-10-00-8510200 USC- DISPATCH	\$50,355	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	6/30/16 12:00 PM	45.00	\$2,265,996
9	30-40-10-00-8510201 USC- DISPATCH - CAP	-\$19,606	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	6/30/16 12:00 PM	45.00	-\$882,280
10	30-40-10-00-8800200 USC-GAS DISTRIBUTION - NH	\$165,357	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	6/30/16 12:00 PM	45.00	\$7,441,046
11	30-40-10-00-8800201 USC-GAS DISTRIBUTION - NH-CAP	-\$132,394	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	6/30/16 12:00 PM	45.00	-\$5,957,742
12	30-40-10-00-9230300 OS UNITIL SERVICE CORP-NH	\$7,061	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	6/30/16 12:00 PM	45.00	\$317,736
13	30-40-10-00-9230301 OS UNITIL SERVICE CORP-NH-CAP	-\$2,471	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	6/30/16 12:00 PM	45.00	-\$111,204
14	30-40-10-00-9230305 USC OUTSIDE SERVICES-DIRECT CHGS-NH	\$24,427	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	6/30/16 12:00 PM	45.00	\$1,099,211
15	30-40-10-00-9230307 DIRECT CHARGES CAPITALIZED	-\$7,595	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	6/30/16 12:00 PM	45.00	-\$341,784
16									
17									
18	Total Base	<u>\$469,527</u>						45.00	<u>\$21,128,711</u>
19									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Service Company Charges Lead Lag Days
12 Months Ended Dec 31, 2016
June Charges

5/18/2017
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Line			<u>Service Period</u>		Total	Midpoint	Date		Weighted
<u>No</u>	<u>Charges</u>	<u>Amount</u>	<u>Start</u>	<u>End</u>	<u>Days</u>	<u>Service Period</u>	<u>Paid</u>	<u>Lag Days</u>	<u>Dollar Days</u>
1									
2	<u>Base</u>								
3									
4	30-40-10-00-8130100 USC-GAS PRODUCTION OTHER - NH	\$30,725	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	7/28/16 12:00 PM	42.50	\$1,305,794
5	30-40-10-00-9030600 USC - CUSTOMER ACCOUNTING	\$91,691	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	7/28/16 12:00 PM	42.50	\$3,896,882
6	30-40-10-00-9230300 OS UNITIL SERVICE CORP-NH	\$297,758	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	7/28/16 12:00 PM	42.50	\$12,654,711
7	30-40-10-00-9230301 OS UNITIL SERVICE CORP-NH-CAP	-\$47,867	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	7/28/16 12:00 PM	42.50	-\$2,034,364
8	30-40-10-00-8510200 USC- DISPATCH	\$47,416	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	7/28/16 12:00 PM	42.50	\$2,015,172
9	30-40-10-00-8510201 USC- DISPATCH - CAP	-\$19,041	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	7/28/16 12:00 PM	42.50	-\$809,261
10	30-40-10-00-8800200 USC-GAS DISTRIBUTION - NH	\$159,451	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	7/28/16 12:00 PM	42.50	\$6,776,666
11	30-40-10-00-8800201 USC-GAS DISTRIBUTION - NH-CAP	-\$128,257	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	7/28/16 12:00 PM	42.50	-\$5,450,917
12	30-40-10-00-9230300 OS UNITIL SERVICE CORP-NH	\$9,220	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	7/28/16 12:00 PM	42.50	\$391,862
13	30-40-10-00-9230301 OS UNITIL SERVICE CORP-NH-CAP	-\$3,227	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	7/28/16 12:00 PM	42.50	-\$137,151
14	30-40-10-00-9230305 USC OUTSIDE SERVICES-DIRECT CHGS-NH	\$26,626	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	7/28/16 12:00 PM	42.50	\$1,131,614
15	30-40-10-00-9230307 DIRECT CHARGES CAPITALIZED	-\$7,577	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	7/28/16 12:00 PM	42.50	-\$322,023
16									
17									
18	Total Base	<u>\$456,917</u>						42.50	<u>\$19,418,982</u>
19									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Service Company Charges Lead Lag Days
12 Months Ended Dec 31, 2016
July Charges

5/18/2017
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Line			<u>Service Period</u>		Total	Midpoint	Date		Weighted
<u>No</u>	<u>Charges</u>	<u>Amount</u>	<u>Start</u>	<u>End</u>	<u>Days</u>	<u>Service Period</u>	<u>Paid</u>	<u>Lag Days</u>	<u>Dollar Days</u>
1									
2	<u>Base</u>								
3									
4	30-40-10-00-8130100 USC-GAS PRODUCTION OTHER - NH	\$30,731	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM	8/22/16 12:00 PM	37.00	\$1,137,055
5	30-40-10-00-9030600 USC - CUSTOMER ACCOUNTING	\$82,021	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM	8/22/16 12:00 PM	37.00	\$3,034,785
6	30-40-10-00-9230300 OS UNITIL SERVICE CORP-NH	\$330,553	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM	8/22/16 12:00 PM	37.00	\$12,230,445
7	30-40-10-00-9230301 OS UNITIL SERVICE CORP-NH-CAP	-\$48,202	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM	8/22/16 12:00 PM	37.00	-\$1,783,480
8	30-40-10-00-8510200 USC- DISPATCH	\$48,663	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM	8/22/16 12:00 PM	37.00	\$1,800,537
9	30-40-10-00-8510201 USC- DISPATCH - CAP	-\$18,995	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM	8/22/16 12:00 PM	37.00	-\$702,807
10	30-40-10-00-8800200 USC-GAS DISTRIBUTION - NH	\$158,440	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM	8/22/16 12:00 PM	37.00	\$5,862,263
11	30-40-10-00-8800201 USC-GAS DISTRIBUTION - NH-CAP	-\$126,729	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM	8/22/16 12:00 PM	37.00	-\$4,688,963
12	30-40-10-00-9230300 OS UNITIL SERVICE CORP-NH	\$9,456	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM	8/22/16 12:00 PM	37.00	\$349,864
13	30-40-10-00-9230301 OS UNITIL SERVICE CORP-NH-CAP	-\$3,310	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM	8/22/16 12:00 PM	37.00	-\$122,453
14	30-40-10-00-9230305 USC OUTSIDE SERVICES-DIRECT CHGS-NH	\$21,320	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM	8/22/16 12:00 PM	37.00	\$788,831
15	30-40-10-00-9230307 DIRECT CHARGES CAPITALIZED	-\$6,292	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM	8/22/16 12:00 PM	37.00	-\$232,808
16									
17									
18	Total Base	<u>\$477,656</u>						37.00	<u>\$17,673,270</u>
19									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Service Company Charges Lead Lag Days
12 Months Ended Dec 31, 2016
August Charges

5/18/2017
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Line			<u>Service Period</u>		Total	Midpoint	Date		Weighted
<u>No</u>	<u>Charges</u>	<u>Amount</u>	<u>Start</u>	<u>End</u>	<u>Days</u>	<u>Service Period</u>	<u>Paid</u>	<u>Lag Days</u>	<u>Dollar Days</u>
1									
2	<u>Base</u>								
3									
4	30-40-10-00-8130100 USC-GAS PRODUCTION OTHER - NH	\$31,540	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM	9/29/16 12:00 PM	44.00	\$1,387,765
5	30-40-10-00-9030600 USC - CUSTOMER ACCOUNTING	\$84,255	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM	9/29/16 12:00 PM	44.00	\$3,707,205
6	30-40-10-00-9230300 OS UNITIL SERVICE CORP-NH	\$317,432	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM	9/29/16 12:00 PM	44.00	\$13,967,021
7	30-40-10-00-9230301 OS UNITIL SERVICE CORP-NH-CAP	-\$49,538	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM	9/29/16 12:00 PM	44.00	-\$2,179,688
8	30-40-10-00-8510200 USC- DISPATCH	\$43,197	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM	9/29/16 12:00 PM	44.00	\$1,900,687
9	30-40-10-00-8510201 USC- DISPATCH - CAP	-\$15,119	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM	9/29/16 12:00 PM	44.00	-\$665,240
10	30-40-10-00-8800200 USC-GAS DISTRIBUTION - NH	\$170,440	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM	9/29/16 12:00 PM	44.00	\$7,499,348
11	30-40-10-00-8800201 USC-GAS DISTRIBUTION - NH-CAP	-\$135,456	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM	9/29/16 12:00 PM	44.00	-\$5,960,068
12	30-40-10-00-9230300 OS UNITIL SERVICE CORP-NH	\$11,250	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM	9/29/16 12:00 PM	44.00	\$495,000
13	30-40-10-00-9230301 OS UNITIL SERVICE CORP-NH-CAP	-\$3,938	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM	9/29/16 12:00 PM	44.00	-\$173,251
14	30-40-10-00-9230305 USC OUTSIDE SERVICES-DIRECT CHGS-NH	\$23,391	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM	9/29/16 12:00 PM	44.00	\$1,029,210
15	30-40-10-00-9230307 DIRECT CHARGES CAPITALIZED	-\$6,292	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM	9/29/16 12:00 PM	44.00	-\$276,852
16									
17									
18	Total Base	<u>\$471,162</u>						44.00	<u>\$20,731,135</u>
19									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Service Company Charges Lead Lag Days
12 Months Ended Dec 31, 2016
September Charges

5/18/2017
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Line			<u>Service Period</u>		Total	Midpoint	Date		Weighted
<u>No</u>	<u>Charges</u>	<u>Amount</u>	<u>Start</u>	<u>End</u>	<u>Days</u>	<u>Service Period</u>	<u>Paid</u>	<u>Lag Days</u>	<u>Dollar Days</u>
1									
2	<u>Base</u>								
3									
4	30-40-10-00-8130100 USC-GAS PRODUCTION OTHER - NH	\$31,672	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM	10/25/16 12:00 PM	39.50	\$1,251,037
5	30-40-10-00-9030600 USC - CUSTOMER ACCOUNTING	\$96,453	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM	10/25/16 12:00 PM	39.50	\$3,809,882
6	30-40-10-00-9230300 OS UNITIL SERVICE CORP-NH	\$296,283	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM	10/25/16 12:00 PM	39.50	\$11,703,184
7	30-40-10-00-9230301 OS UNITIL SERVICE CORP-NH-CAP	-\$35,237	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM	10/25/16 12:00 PM	39.50	-\$1,391,869
8	30-40-10-00-8510200 USC- DISPATCH	\$38,580	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM	10/25/16 12:00 PM	39.50	\$1,523,928
9	30-40-10-00-8510201 USC- DISPATCH - CAP	-\$13,503	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM	10/25/16 12:00 PM	39.50	-\$533,375
10	30-40-10-00-8800200 USC-GAS DISTRIBUTION - NH	\$175,406	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM	10/25/16 12:00 PM	39.50	\$6,928,551
11	30-40-10-00-8800201 USC-GAS DISTRIBUTION - NH-CAP	-\$140,288	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM	10/25/16 12:00 PM	39.50	-\$5,541,358
12	30-40-10-00-9230300 OS UNITIL SERVICE CORP-NH	\$6,094	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM	10/25/16 12:00 PM	39.50	\$240,700
13	30-40-10-00-9230301 OS UNITIL SERVICE CORP-NH-CAP	-\$2,133	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM	10/25/16 12:00 PM	39.50	-\$84,245
14	30-40-10-00-9230305 USC OUTSIDE SERVICES-DIRECT CHGS-NH	\$21,920	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM	10/25/16 12:00 PM	39.50	\$865,829
15	30-40-10-00-9230307 DIRECT CHARGES CAPITALIZED	-\$6,292	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM	10/25/16 12:00 PM	39.50	-\$248,538
16									
17									
18	Total Base	<u>\$468,955</u>						39.50	<u>\$18,523,726</u>
19									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Service Company Charges Lead Lag Days
12 Months Ended Dec 31, 2016
October Charges

5/18/2017
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Line			<u>Service Period</u>		Total	Midpoint	Date		Weighted
<u>No</u>	<u>Charges</u>	<u>Amount</u>	<u>Start</u>	<u>End</u>	<u>Days</u>	<u>Service Period</u>	<u>Paid</u>	<u>Lag Days</u>	<u>Dollar Days</u>
1									
2	<u>Base</u>								
3									
4	30-40-10-00-8130100 USC-GAS PRODUCTION OTHER - NH	\$33,441	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	11/28/16 12:00 PM	43.00	\$1,437,961
5	30-40-10-00-9030600 USC - CUSTOMER ACCOUNTING	\$88,195	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	11/28/16 12:00 PM	43.00	\$3,792,379
6	30-40-10-00-9230300 OS UNITIL SERVICE CORP-NH	\$326,624	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	11/28/16 12:00 PM	43.00	\$14,044,816
7	30-40-10-00-9230301 OS UNITIL SERVICE CORP-NH-CAP	-\$48,062	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	11/28/16 12:00 PM	43.00	-\$2,066,664
8	30-40-10-00-8510200 USC- DISPATCH	\$38,753	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	11/28/16 12:00 PM	43.00	\$1,666,369
9	30-40-10-00-8510201 USC- DISPATCH - CAP	-\$13,563	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	11/28/16 12:00 PM	43.00	-\$583,229
10	30-40-10-00-8800200 USC-GAS DISTRIBUTION - NH	\$186,068	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	11/28/16 12:00 PM	43.00	\$8,000,920
11	30-40-10-00-8800201 USC-GAS DISTRIBUTION - NH-CAP	-\$149,119	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	11/28/16 12:00 PM	43.00	-\$6,412,105
12	30-40-10-00-9230300 OS UNITIL SERVICE CORP-NH	\$6,311	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	11/28/16 12:00 PM	43.00	\$271,388
13	30-40-10-00-9230301 OS UNITIL SERVICE CORP-NH-CAP	-\$2,209	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	11/28/16 12:00 PM	43.00	-\$94,985
14	30-40-10-00-9230305 USC OUTSIDE SERVICES-DIRECT CHGS-NH	\$24,094	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	11/28/16 12:00 PM	43.00	\$1,036,037
15	30-40-10-00-9230307 DIRECT CHARGES CAPITALIZED	-\$6,785	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	11/28/16 12:00 PM	43.00	-\$291,772
16									
17									
18	Total Base	<u>\$483,747</u>						43.00	<u>\$20,801,116</u>
19									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Service Company Charges Lead Lag Days
12 Months Ended Dec 31, 2016
November Charges

5/18/2017
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Line			<u>Service Period</u>		Total	Midpoint	Date		Weighted
<u>No</u>	<u>Charges</u>	<u>Amount</u>	<u>Start</u>	<u>End</u>	<u>Days</u>	<u>Service Period</u>	<u>Paid</u>	<u>Lag Days</u>	<u>Dollar Days</u>
1									
2	<u>Base</u>								
3									
4	30-40-10-00-8130100 USC-GAS PRODUCTION OTHER - NH	\$33,579	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	12/22/16 12:00 PM	36.50	\$1,225,625
5	30-40-10-00-9030600 USC - CUSTOMER ACCOUNTING	\$77,363	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	12/22/16 12:00 PM	36.50	\$2,823,741
6	30-40-10-00-9230300 OS UNITIL SERVICE CORP-NH	\$354,726	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	12/22/16 12:00 PM	36.50	\$12,947,510
7	30-40-10-00-9230301 OS UNITIL SERVICE CORP-NH-CAP	-\$49,318	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	12/22/16 12:00 PM	36.50	-\$1,800,091
8	30-40-10-00-8510200 USC- DISPATCH	\$40,333	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	12/22/16 12:00 PM	36.50	\$1,472,161
9	30-40-10-00-8510201 USC- DISPATCH - CAP	-\$14,117	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	12/22/16 12:00 PM	36.50	-\$515,257
10	30-40-10-00-8800200 USC-GAS DISTRIBUTION - NH	\$191,485	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	12/22/16 12:00 PM	36.50	\$6,989,214
11	30-40-10-00-8800201 USC-GAS DISTRIBUTION - NH-CAP	-\$151,545	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	12/22/16 12:00 PM	36.50	-\$5,531,386
12	30-40-10-00-9230300 OS UNITIL SERVICE CORP-NH	\$5,130	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	12/22/16 12:00 PM	36.50	\$187,228
13	30-40-10-00-9230301 OS UNITIL SERVICE CORP-NH-CAP	-\$1,795	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	12/22/16 12:00 PM	36.50	-\$65,530
14	30-40-10-00-9230305 USC OUTSIDE SERVICES-DIRECT CHGS-NH	\$21,082	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	12/22/16 12:00 PM	36.50	\$769,498
15	30-40-10-00-9230307 DIRECT CHARGES CAPITALIZED	-\$6,619	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	12/22/16 12:00 PM	36.50	-\$241,586
16									
17									
18	Total Base	<u>\$500,305</u>						36.50	<u>\$18,261,129</u>
19									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Service Company Charges Lead Lag Days
12 Months Ended Dec 31, 2016
December Charges

5/18/2017
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Line			<u>Service Period</u>		Total	Midpoint	Date		Weighted
<u>No</u>	<u>Charges</u>	<u>Amount</u>	<u>Start</u>	<u>End</u>	<u>Days</u>	<u>Service Period</u>	<u>Paid</u>	<u>Lag Days</u>	<u>Dollar Days</u>
1									
2	<u>Base</u>								
3									
4	30-40-10-00-8130100 USC-GAS PRODUCTION OTHER - NH	\$37,143	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	1/24/17 12:00 PM	39.00	\$1,448,581
5	30-40-10-00-9030600 USC - CUSTOMER ACCOUNTING	\$85,220	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	1/24/17 12:00 PM	39.00	\$3,323,566
6	30-40-10-00-9230300 OS UNITIL SERVICE CORP-NH	\$325,986	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	1/24/17 12:00 PM	39.00	\$12,713,459
7	30-40-10-00-9230301 OS UNITIL SERVICE CORP-NH-CAP	-\$51,661	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	1/24/17 12:00 PM	39.00	-\$2,014,777
8	30-40-10-00-8510200 USC- DISPATCH	\$45,027	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	1/24/17 12:00 PM	39.00	\$1,756,071
9	30-40-10-00-8510201 USC- DISPATCH - CAP	-\$15,760	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	1/24/17 12:00 PM	39.00	-\$614,624
10	30-40-10-00-8800200 USC-GAS DISTRIBUTION - NH	\$204,158	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	1/24/17 12:00 PM	39.00	\$7,962,172
11	30-40-10-00-8800201 USC-GAS DISTRIBUTION - NH-CAP	-\$164,053	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	1/24/17 12:00 PM	39.00	-\$6,398,056
12	30-40-10-00-9230300 OS UNITIL SERVICE CORP-NH	\$4,578	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	1/24/17 12:00 PM	39.00	\$178,559
13	30-40-10-00-9230301 OS UNITIL SERVICE CORP-NH-CAP	-\$1,602	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	1/24/17 12:00 PM	39.00	-\$62,496
14	30-40-10-00-9230305 USC OUTSIDE SERVICES-DIRECT CHGS-NH	\$27,282	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	1/24/17 12:00 PM	39.00	\$1,063,989
15	30-40-10-00-9230307 DIRECT CHARGES CAPITALIZED	-\$6,619	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	1/24/17 12:00 PM	39.00	-\$258,134
16									
17									
18	Total Base	<u>\$489,700</u>						39.00	<u>\$19,098,311</u>
19									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Taxes Other Than Income Lead Lag Days
12 Months Ended Dec 31, 2016
Summary of Taxes Other Than Income Excluding Property Taxes

5/18/2017
1:14:21 PM

Line No	Type of Tax	Test Period Expense	(Lead) Lag Days	Test Period Weighted Dollar Days	
1					
2	TAXES FICA - NH	\$290,749	9.45	\$2,746,486	
3	TAXES FEDERAL UNEMPLOYMENT - NH	\$1,958	9.08	\$17,769	
4	TAXES UNEMPLOYMENT - NH	\$629	6.15	\$3,868	
5	OTHER TAXES	\$150	9.44	\$1,416	
6	NHBET TAX EXP- CURRENT	\$92,400	29.25	\$2,702,700	Business Enterprise Tax with four 25% estimated payments.
7	PAYROLL TAXES CAPITALIZED - NH	-\$130,498	9.44	-\$1,231,477	
8	NH SURPLUS TAX	\$8,120	-167.50	-\$1,360,060	See Note 1
9	Total Taxes Excluding Property Taxes	\$263,507	10.93	\$2,880,703	
10					
11					
12					
13	Property Taxes	\$3,500,423			
14					
15	Total Taxes Other Than Income Taxes	\$3,763,930			
16					
17					
18					
19					
20					

Note 1: Insurance Policies with NH Surplus Tax are paid in the first month of the annual policy period.
Lag is half of the prepaid annual service period less the 15 days for payment during the mid point of the first month.

Northern Utilities, Inc. - New Hampshire Division
Calculation of Property Taxes Lead Lag Days
12 Months Ended Dec 31, 2016
Summary of Property Taxes

5/18/2017
1:18:58 PM

Line No	Type of Tax	Test Period Charges	(Lead) Lag Days	Weighted Dollar Days
1	January Payments	\$ 198,123	97.50	\$ 19,316,993
2	February Payments	\$ -	0.00	\$ -
3	March Payments	\$ -	0.00	\$ -
4	April Payments	\$ 204,525	-176.00	\$ (35,996,400)
5	May Payments	\$ 428,026	137.50	\$ 58,853,539
6	June Payments	\$ 1,075,831	-102.16	\$ (109,906,294)
7	July Payments	\$ -	0.00	\$ -
8	August Payments	\$ -	0.00	\$ -
9	September Payments	\$ 204,525	-23.00	\$ (4,704,075)
10	October Payments	\$ -	0.00	\$ -
11	November Payments	\$ 737,797	48.68	\$ 35,918,815
12	December Payments	\$ 823,863	15.98	\$ 13,168,786
13				
14	Total Payments	<u>\$ 3,672,690</u>	-6.36	<u>\$ (23,348,636)</u>
15				
16				
17				
18	Property Tax Expense 12/31/16	<u>3,500,423</u>	from G/L	
19				
20				
21	Difference	<u><u>\$ 172,266</u></u>		
22				
23				
24				

Northern Utilities, Inc. - New Hampshire Division
Calculation of Property Taxes Lead Lag Days
12 Months Ended Dec 31, 2016
January Payments

5/18/2017
1:18:58 PM

Line No	Jurisdiction Payment	Payment Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Check or EFT Date	(Lead) Lag Days	Weighted Dollar Days
			<u>Start</u>	<u>End</u>					
1	Atkinson	\$ -			0	1/0/00 12:00 AM		\$ -	
2	Brentwood	\$ -			0	1/0/00 12:00 AM		\$ -	
3	Dover	\$ -			0	1/0/00 12:00 AM		\$ -	
4	Durham	\$ -			0	1/0/00 12:00 AM		\$ -	
5	East Kingston	\$ -			0	1/0/00 12:00 AM		\$ -	
6	Exeter	\$ -			0	1/0/00 12:00 AM		\$ -	
7	Greenland	\$ -			0	1/0/00 12:00 AM		\$ -	
8	Hampton	\$ -			0	1/0/00 12:00 AM		\$ -	
9	Hampton Falls	\$ -			0	1/0/00 12:00 AM		\$ -	
10	Kensington	\$ -			0	1/0/00 12:00 AM		\$ -	
11	Madbury	\$ -			0	1/0/00 12:00 AM		\$ -	
12	Newington	\$ -			0	1/0/00 12:00 AM		\$ -	
13	North Hampton	\$ -			0	1/0/00 12:00 AM		\$ -	
14	Plaistow	\$ -			0	1/0/00 12:00 AM		\$ -	
15	Portsmouth	\$ -			0	1/0/00 12:00 AM		\$ -	
16	Rochester	\$ 198,123	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM	1/6/16 12:00 PM	97.5	\$ 19,316,993
17	Rollinsford	\$ -			0	1/0/00 12:00 AM		\$ -	
18	Salem	\$ -			0	1/0/00 12:00 AM		\$ -	
19	Seabrook	\$ -			0	1/0/00 12:00 AM		\$ -	
20	Somersworth	\$ -			0	1/0/00 12:00 AM		\$ -	
21	Stratham	\$ -			0	1/0/00 12:00 AM		\$ -	
22	State of New Hampshire	\$ -			0	1/0/00 12:00 AM		\$ -	
23									
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32									
33									
34									
35		<u>\$ 198,123</u>							<u>\$ 19,316,993</u>
36									
37									
38		Total January Payments				\$198,123			
39									
40		Total Weighted Dollar Days				\$19,316,993			
41									
42		January Payments (Lead) Lag Days				97.5			
43									
44									
45									
46									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Property Taxes Lead Lag Days
12 Months Ended Dec 31, 2016
February Payments

5/18/2017
1:18:58 PM

Line No	Jurisdiction Payment	Payment Amount	Service Period		Total Days	Midpoint Service Period	Check or EFT Date	(Lead) Lag Days	Weighted Dollar Days
			Start	End					
1	Atkinson	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
2	Brentwood	\$ -	7/1/15 12:00 AM	7/1/16 12:00 AM	366	12/31/15 12:00 AM		\$ -	
3	Dover	\$ -	7/1/15 12:00 AM	7/1/16 12:00 AM	366	12/31/15 12:00 AM		\$ -	
4	Durham	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
5	East Kingston	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
6	Exeter	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
7	Greenland	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
8	Hampton	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
9	Hampton Falls	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
10	Kensington	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
11	Madbury	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
12	Newington	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
13	North Hampton	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
14	Plaistow	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
15	Portsmouth	\$ -	7/1/15 12:00 AM	7/1/16 12:00 AM	366	12/31/15 12:00 AM		\$ -	
16	Rochester	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
17	Rollinsford	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
18	Salem	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
19	Seabrook	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
20	Somersworth	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
21	Stratham	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
22	State of New Hampshire	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
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34									
35		<u>\$ -</u>						<u>\$ -</u>	
36									
37									
38		Total February Payments				\$0			
39									
40		Total Weighted Dollar Days				\$0			
41									
42		February Payments (Lead) Lag Days				#DIV/0!			
43									
44									
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46									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Property Taxes Lead Lag Days
12 Months Ended Dec 31, 2016
March Payments

5/18/2017
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Line No	Jurisdiction Payment	Payment Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Check or EFT Date	(Lead) Lag Days	Weighted Dollar Days
			Start	End					
1	Atkinson	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
2	Brentwood	\$ -	7/1/15 12:00 AM	7/1/16 12:00 AM	366	12/31/15 12:00 AM		\$ -	
3	Dover	\$ -	7/1/15 12:00 AM	7/1/16 12:00 AM	366	12/31/15 12:00 AM		\$ -	
4	Durham	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
5	East Kingston	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
6	Exeter	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
7	Greenland	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
8	Hampton	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
9	Hampton Falls	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
10	Kensington	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
11	Madbury	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
12	Newington	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
13	North Hampton	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
14	Plaistow	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
15	Portsmouth	\$ -	7/1/15 12:00 AM	7/1/16 12:00 AM	366	12/31/15 12:00 AM		\$ -	
16	Rochester	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
17	Rollinsford	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
18	Salem	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
19	Seabrook	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
20	Somersworth	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
21	Stratham	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
22	State of New Hampshire	\$ -	4/1/15 12:00 AM	4/1/16 12:00 AM	366	10/1/15 12:00 AM		\$ -	
23									
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32									
33									
34									
35		<u>\$ -</u>						<u>\$ -</u>	
36									
37									
38		Total March Payments					\$0		
39									
40		Total Weighted Dollar Days					\$0		
41									
42		March Payments (Lead) Lag Days					#DIV/0!		
43									
44									
45									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Property Taxes Lead Lag Days
12 Months Ended Dec 31, 2016
April Payments

5/18/2017
1:18:58 PM

Line No	Jurisdiction Payment	Payment Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Check or EFT Date	(Lead) Lag Days	Weighted Dollar Days
			<u>Start</u>	<u>End</u>					
1	Atkinson	\$ -			0	1/0/00 12:00 AM		\$ -	
2	Brentwood	\$ -			0	1/0/00 12:00 AM		\$ -	
3	Dover	\$ -			0	1/0/00 12:00 AM		\$ -	
4	Durham	\$ -			0	1/0/00 12:00 AM		\$ -	
5	East Kingston	\$ -			0	1/0/00 12:00 AM		\$ -	
6	Exeter	\$ -			0	1/0/00 12:00 AM		\$ -	
7	Greenland	\$ -			0	1/0/00 12:00 AM		\$ -	
8	Hampton	\$ -			0	1/0/00 12:00 AM		\$ -	
9	Hampton Falls	\$ -			0	1/0/00 12:00 AM		\$ -	
10	Kensington	\$ -			0	1/0/00 12:00 AM		\$ -	
11	Madbury	\$ -			0	1/0/00 12:00 AM		\$ -	
12	Newington	\$ -			0	1/0/00 12:00 AM		\$ -	
13	North Hampton	\$ -			0	1/0/00 12:00 AM		\$ -	
14	Plaistow	\$ -			0	1/0/00 12:00 AM		\$ -	
15	Portsmouth	\$ -			0	1/0/00 12:00 AM		\$ -	
16	Rochester	\$ -			0	1/0/00 12:00 AM		\$ -	
17	Rollinsford	\$ -			0	1/0/00 12:00 AM		\$ -	
18	Salem	\$ -			0	1/0/00 12:00 AM		\$ -	
19	Seabrook	\$ -			0	1/0/00 12:00 AM		\$ -	
20	Somersworth	\$ -			0	1/0/00 12:00 AM		\$ -	
21	Stratham	\$ -			0	1/0/00 12:00 AM		\$ -	
22	State of New Hampshire	\$ 204,525	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	4/7/16 12:00 PM	-176.0	\$ (35,996,400)
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									
33									
34									
35		<u>\$ 204,525</u>							<u>\$ (35,996,400)</u>
36									
37									
38		Total April Payments				\$204,525			
39									
40		Total Weighted Dollar Days				-\$35,996,400			
41									
42		April Payments (Lead) Lag Days				-176.00			
43									
44									
45									
46									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Property Taxes Lead Lag Days
12 Months Ended Dec 31, 2016
May Payments

5/18/2017
1:18:58 PM

Line No	Jurisdiction Payment	Payment Amount	Service Period Start End		Total Days	Midpoint Service Period	Check or EFT Date	(Lead) Lag Days	Weighted Dollar Days
1	Atkinson	\$ -			0	1/0/00 12:00 AM			\$ -
2	Brentwood	\$ -			0	1/0/00 12:00 AM			\$ -
3	Dover	\$ 230,800	7/1/15 12:00 AM	7/1/16 12:00 AM	366	12/31/15 12:00 AM	5/16/16 12:00 PM	137.5	\$ 31,734,964
4	Durham	\$ -			0	1/0/00 12:00 AM			\$ -
5	East Kingston	\$ -			0	1/0/00 12:00 AM			\$ -
6	Exeter	\$ -			0	1/0/00 12:00 AM			\$ -
7	Greenland	\$ -			0	1/0/00 12:00 AM			\$ -
8	Hampton	\$ -			0	1/0/00 12:00 AM			\$ -
9	Hampton Falls	\$ -			0	1/0/00 12:00 AM			\$ -
10	Kensington	\$ -			0	1/0/00 12:00 AM			\$ -
11	Madbury	\$ -			0	1/0/00 12:00 AM			\$ -
12	Newington	\$ -			0	1/0/00 12:00 AM			\$ -
13	North Hampton	\$ -			0	1/0/00 12:00 AM			\$ -
14	Plaistow	\$ -			0	1/0/00 12:00 AM			\$ -
15	Portsmouth	\$ 197,226	7/1/15 12:00 AM	7/1/16 12:00 AM	366	12/31/15 12:00 AM	5/16/16 12:00 PM	137.5	\$ 27,118,575
16	Rochester	\$ -			0	1/0/00 12:00 AM			\$ -
17	Rollinsford	\$ -			0	1/0/00 12:00 AM			\$ -
18	Salem	\$ -			0	1/0/00 12:00 AM			\$ -
19	Seabrook	\$ -			0	1/0/00 12:00 AM			\$ -
20	Somersworth	\$ -			0	1/0/00 12:00 AM			\$ -
21	Stratham	\$ -			0	1/0/00 12:00 AM			\$ -
22	State of New Hampshire	\$ -			0	1/0/00 12:00 AM			\$ -
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									
33									
34									
35		\$ 428,026							\$ 58,853,539
36									
37									
38		Total May Payments				\$428,026			
39									
40		Total Weighted Dollar Days				\$58,853,539			
41									
42		May Payments (Lead) Lag Days				137.50			
43									
44									
45									
46									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Property Taxes Lead Lag Days
12 Months Ended Dec 31, 2016
June Payments

5/18/2017
1:18:58 PM

Line No	Jurisdiction Payment	Payment Amount	Service Period Start End		Total Days	Midpoint Service Period	Check or EFT Date	(Lead) Lag Days	Weighted Dollar Days
1	Atkinson	\$ 2,230	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	6/22/16 12:00 PM	-100.0	\$ (223,000)
2	Brentwood	\$ 2,713	7/1/15 12:00 AM	7/1/16 12:00 AM	366	12/31/15 12:00 AM	6/22/16 12:00 PM	174.5	\$ 473,419
3	Dover	\$ -			0	1/0/00 12:00 AM			\$ -
4	Durham	\$ 110,280	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	6/22/16 12:00 PM	-100.0	\$ (11,028,000)
5	East Kingston	\$ 5,210	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	6/22/16 12:00 PM	-100.0	\$ (521,000)
6	Exeter	\$ 105,449	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	6/22/16 12:00 PM	-100.0	\$ (10,544,938)
7	Greenland	\$ 3,498	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	6/22/16 12:00 PM	-100.0	\$ (349,750)
8	Hampton	\$ 154,560	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	6/22/16 12:00 PM	-100.0	\$ (15,456,000)
9	Hampton Falls	\$ 294	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	6/22/16 12:00 PM	-100.0	\$ (29,400)
10	Kensington	\$ 12,330	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	6/22/16 12:00 PM	-100.0	\$ (1,233,000)
11	Madbury	\$ 3,332	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	6/22/16 12:00 PM	-100.0	\$ (333,200)
12	Newington	\$ 4,844	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	6/22/16 12:00 PM	-100.0	\$ (484,449)
13	North Hampton	\$ 3,522	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	6/22/16 12:00 PM	-100.0	\$ (352,200)
14	Plaistow	\$ 21,271	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	6/22/16 12:00 PM	-100.0	\$ (2,127,100)
15	Portsmouth	\$ -			0	1/0/00 12:00 AM			\$ -
16	Rochester	\$ 192,701	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	6/22/16 12:00 PM	-100.0	\$ (19,270,100)
17	Rollinsford	\$ 708	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	6/22/16 12:00 PM	-100.0	\$ (70,800)
18	Salem	\$ 73,509	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	6/22/16 12:00 PM	-100.0	\$ (7,350,900)
19	Seabrook	\$ 72,727	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	6/22/16 12:00 PM	-100.0	\$ (7,272,700)
20	Somersworth	\$ 98,432	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	6/22/16 12:00 PM	-100.0	\$ (9,843,200)
21	Stratham	\$ 3,696	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	6/22/16 12:00 PM	-100.0	\$ (369,600)
22	State of New Hampshire	\$ 204,525	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	6/7/16 12:00 PM	-115.0	\$ (23,520,375)
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									
33									
34									
35		<u>\$ 1,075,831</u>							<u>\$ (109,906,294)</u>
36									
37									
38		Total June Payments				\$1,075,831			
39									
40		Total Weighted Dollar Days				-\$109,906,294			
41									
42		June Payments (Lead) Lag Days				-102.16			
43									
44									
45									
46									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Property Taxes Lead Lag Days
12 Months Ended Dec 31, 2016
July Payments

5/18/2017
1:18:58 PM

Line No	Jurisdiction Payment	Payment Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Check or EFT Date	(Lead) Lag Days	Weighted Dollar Days
			<u>Start</u>	<u>End</u>					
1	Atkinson	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
2	Brentwood	\$ -	7/1/16 12:00 AM	7/1/17 12:00 AM	365	12/30/16 12:00 PM		\$ -	
3	Dover	\$ -	7/1/16 12:00 AM	7/1/17 12:00 AM	365	12/30/16 12:00 PM		\$ -	
4	Durham	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
5	East Kingston	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
6	Exeter	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
7	Greenland	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
8	Hampton	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
9	Hampton Falls	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
10	Kensington	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
11	Madbury	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
12	Newington	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
13	North Hampton	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
14	Plaistow	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
15	Portsmouth	\$ -	7/1/16 12:00 AM	7/1/17 12:00 AM	365	12/30/16 12:00 PM		\$ -	
16	Rochester	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
17	Rollinsford	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
18	Salem	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
19	Seabrook	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
20	Somersworth	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
21	Stratham	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
22	State of New Hampshire	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
23									
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31									
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34									
35		<u>\$ -</u>						<u>\$ -</u>	
36									
37									
38		Total July Payments				\$0			
39									
40		Total Weighted Dollar Days				\$0			
41									
42		July Payments (Lead) Lag Days				#DIV/0!			
43									
44									
45									
46									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Property Taxes Lead Lag Days
12 Months Ended Dec 31, 2016
August Payments

5/18/2017
1:18:58 PM

Line No	Jurisdiction Payment	Payment Amount	Service Period StartEnd		Total Days	Midpoint Service Period	Check or EFT Date	(Lead) Lag Days	Weighted Dollar Days
1	Atkinson	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
2	Brentwood	\$ -	7/1/16 12:00 AM	7/1/17 12:00 AM	365	12/30/16 12:00 PM		\$ -	
3	Dover	\$ -	7/1/16 12:00 AM	7/1/17 12:00 AM	365	12/30/16 12:00 PM		\$ -	
4	Durham	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
5	East Kingston	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
6	Exeter	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
7	Greenland	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
8	Hampton	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
9	Hampton Falls	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
10	Kensington	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
11	Madbury	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
12	Newington	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
13	North Hampton	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
14	Plaistow	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
15	Portsmouth	\$ -	7/1/16 12:00 AM	7/1/17 12:00 AM	365	12/30/16 12:00 PM		\$ -	
16	Rochester	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
17	Rollinsford	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
18	Salem	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
19	Seabrook	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
20	Somersworth	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
21	Stratham	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
22	State of New Hampshire	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
23									
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30									
31									
32									
33									
34									
35		\$ -						\$ -	
36									
37									
38		Total August Payments				\$0			
39									
40		Total Weighted Dollar Days				\$0			
41									
42		August Payments (Lead) Lag Days				#DIV/0!			
43									
44									
45									
46									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Property Taxes Lead Lag Days
12 Months Ended Dec 31, 2016
September Payments

5/18/2017
1:18:58 PM

Line No	Jurisdiction Payment	Payment Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Check or EFT Date	(Lead) Lag Days	Weighted Dollar Days
			Start	End					
1	Atkinson	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
2	Brentwood	\$ -	7/1/16 12:00 AM	7/1/17 12:00 AM	365	12/30/16 12:00 PM		\$ -	
3	Dover	\$ -	7/1/16 12:00 AM	7/1/17 12:00 AM	365	12/30/16 12:00 PM		\$ -	
4	Durham	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
5	East Kingston	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
6	Exeter	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
7	Greenland	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
8	Hampton	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
9	Hampton Falls	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
10	Kensington	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
11	Madbury	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
12	Newington	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
13	North Hampton	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
14	Plaistow	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
15	Portsmouth	\$ -	7/1/16 12:00 AM	7/1/17 12:00 AM	365	12/30/16 12:00 PM		\$ -	
16	Rochester	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
17	Rollinsford	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
18	Salem	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
19	Seabrook	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
20	Somersworth	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
21	Stratham	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
22	State of New Hampshire	\$ 204,525	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	9/7/16 12:00 PM	-23.0	\$ (4,704,075)
23									
24									
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31									
32									
33									
34									
35		<u>\$ 204,525</u>							<u>\$ (4,704,075)</u>
36									
37									
38		Total September Payments				\$204,525			
39									
40		Total Weighted Dollar Days				-\$4,704,075			
41									
42		September Payments (Lead) Lag Days				-23.00			
43									
44									
45									
46									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Property Taxes Lead Lag Days
12 Months Ended Dec 31, 2016
October Payments

5/18/2017
1:18:58 PM

Line No	Jurisdiction Payment	Payment Amount	<u>Service Period</u>		Total Days	Midpoint Service Period	Check or EFT Date	(Lead) Lag Days	Weighted Dollar Days
			Start	End					
1	Atkinson	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
2	Brentwood	\$ -	7/1/16 12:00 AM	7/1/17 12:00 AM	365	12/30/16 12:00 PM		\$ -	
3	Dover	\$ -	7/1/16 12:00 AM	7/1/17 12:00 AM	365	12/30/16 12:00 PM		\$ -	
4	Durham	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
5	East Kingston	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
6	Exeter	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
7	Greenland	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
8	Hampton	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
9	Hampton Falls	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
10	Kensington	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
11	Madbury	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
12	Newington	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
13	North Hampton	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
14	Plaistow	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
15	Portsmouth	\$ -	7/1/16 12:00 AM	7/1/17 12:00 AM	365	12/30/16 12:00 PM		\$ -	
16	Rochester	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
17	Rollinsford	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
18	Salem	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
19	Seabrook	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
20	Somersworth	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
21	Stratham	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
22	State of New Hampshire	\$ -	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM		\$ -	
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34									
35		<u>\$ -</u>						<u>\$ -</u>	
36									
37									
38		Total October Payments				\$0			
39									
40		Total Weighted Dollar Days				\$0			
41									
42		October Payments (Lead) Lag Days				#DIV/0!			
43									
44									
45									
46									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Property Taxes Lead Lag Days
12 Months Ended Dec 31, 2016
November Payments

5/18/2017
1:18:58 PM

Line No	Jurisdiction Payment	Payment Amount	Service Period Start End		Total Days	Midpoint Service Period	Check or EFT Date	(Lead) Lag Days	Weighted Dollar Days
1	Atkinson	\$ -			0	1/0/00 12:00 AM		\$ -	
2	Brentwood	\$ 2,563	7/1/16 12:00 AM	7/1/17 12:00 AM	365	12/30/16 12:00 PM	11/18/16 12:00 PM	-42.0	(107,646)
3	Dover	\$ -			0	1/0/00 12:00 AM		\$ -	
4	Durham	\$ 105,064	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	11/18/16 12:00 PM	49.0	5,148,136
5	East Kingston	\$ 5,154	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	11/18/16 12:00 PM	49.0	252,546
6	Exeter	\$ 145,890	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	11/18/16 12:00 PM	49.0	7,148,629
7	Greenland	\$ 2,754	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	11/18/16 12:00 PM	49.0	134,922
8	Hampton	\$ 209,658	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	11/18/16 12:00 PM	49.0	10,273,242
9	Hampton Falls	\$ 220	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	11/18/16 12:00 PM	49.0	10,780
10	Kensington	\$ 17,172	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	11/18/16 12:00 PM	49.0	841,428
11	Madbury	\$ 3,593	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	11/18/16 12:00 PM	49.0	176,057
12	Newington	\$ -			0	1/0/00 12:00 AM		\$ -	
13	North Hampton	\$ -			0	1/0/00 12:00 AM		\$ -	
14	Plaistow	\$ -			0	1/0/00 12:00 AM		\$ -	
15	Portsmouth	\$ -			0	1/0/00 12:00 AM		\$ -	
16	Rochester	\$ -			0	1/0/00 12:00 AM		\$ -	
17	Rollinsford	\$ 833	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	11/18/16 12:00 PM	49.0	40,817
18	Salem	\$ 143,264	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	11/18/16 12:00 PM	49.0	7,019,936
19	Seabrook	\$ -			0	1/0/00 12:00 AM		\$ -	
20	Somersworth	\$ 98,100	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	11/18/16 12:00 PM	49.0	4,806,900
21	Stratham	\$ 3,532	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	11/18/16 12:00 PM	49.0	173,068
22	State of New Hampshire	\$ -			0	1/0/00 12:00 AM		\$ -	
23									
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33									
34									
35		<u>\$ 737,797</u>							<u>\$ 35,918,815</u>
36									
37									
38		Total November Payments				\$737,797			
39									
40		Total Weighted Dollar Days				\$35,918,815			
41									
42		November Payments (Lead) Lag Days				48.68			
43									
44									
45									
46									

Northern Utilities, Inc. - New Hampshire Division
Calculation of Property Taxes Lead Lag Days
12 Months Ended Dec 31, 2016
December Payments

5/18/2017
1:18:58 PM

Line No	Jurisdiction Payment	Payment Amount	Service Period Start End		Total Days	Midpoint Service Period	Check or EFT Date	(Lead) Lag Days	Weighted Dollar Days
1	Atkinson	\$ 2,416	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	12/5/16 12:00 PM	66.0	\$ 159,456
2	Brentwood	\$ -			0	1/0/00 12:00 AM			\$ -
3	Dover	\$ 244,605	7/1/16 12:00 AM	7/1/17 12:00 AM	365	12/30/16 12:00 PM	12/5/16 12:00 PM	-25.0	\$ (6,115,120)
4	Durham	\$ -			0	1/0/00 12:00 AM			\$ -
5	East Kingston	\$ -			0	1/0/00 12:00 AM			\$ -
6	Exeter	\$ -			0	1/0/00 12:00 AM			\$ -
7	Greenland	\$ -			0	1/0/00 12:00 AM			\$ -
8	Hampton	\$ -			0	1/0/00 12:00 AM			\$ -
9	Hampton Falls	\$ -			0	1/0/00 12:00 AM			\$ -
10	Kensington	\$ -			0	1/0/00 12:00 AM			\$ -
11	Madbury	\$ -			0	1/0/00 12:00 AM			\$ -
12	Newington	\$ 10,989	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	12/5/16 12:00 PM	66.0	\$ 725,262
13	North Hampton	\$ 8,499	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	12/5/16 12:00 PM	66.0	\$ 560,934
14	Plaistow	\$ 54,778	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	12/5/16 12:00 PM	66.0	\$ 3,615,348
15	Portsmouth	\$ 208,210	7/1/16 12:00 AM	7/1/17 12:00 AM	365	12/30/16 12:00 PM	12/5/16 12:00 PM	-25.0	\$ (5,205,250)
16	Rochester	\$ -			0	1/0/00 12:00 AM			\$ -
17	Rollinsford	\$ -			0	1/0/00 12:00 AM			\$ -
18	Salem	\$ -			0	1/0/00 12:00 AM			\$ -
19	Seabrook	\$ 67,325	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	12/5/16 12:00 PM	66.0	\$ 4,443,450
20	Somersworth	\$ -			0	1/0/00 12:00 AM			\$ -
21	Stratham	\$ -			0	1/0/00 12:00 AM			\$ -
22	State of New Hampshire	\$ 227,041	4/1/16 12:00 AM	4/1/17 12:00 AM	365	9/30/16 12:00 PM	12/5/16 12:00 PM	66.0	\$ 14,984,706
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33									
34									
35		<u>\$ 823,863</u>							<u>\$ 13,168,786</u>
36									
37									
38		Total December Payments				\$823,863			
39									
40		Total Weighted Dollar Days				\$13,168,786			
41									
42		December Payments (Lead) Lag Days				15.98			
43									
44									
45									
46									

Northern Utilities - New Hampshire Division
Calculation of Income Taxes Lead Lag Days
12 Months Ended Dec 31, 2016
Federal Income Tax

5/18/2017
1:20:59 PM

Line No	Type of Payment	<u>Tax Period</u>		Total Days	Midpoint Service Period	<u>Scheduled Payment Date</u>	(Lead) Lag Days	Statutory % of Total Taxes for Year	Weighted Days
		<u>Start</u>	<u>End</u>						
1									
2	First Payment	1/1/16 12:00 AM	1/1/17 12:00 AM	366.0	07/02/16	3/15/16 12:00 PM	-108.5	25.00%	-27.1
3									
4	Second Payment	1/1/16 12:00 AM	1/1/17 12:00 AM	366.0	07/02/16	6/15/16 12:00 PM	-16.5	25.00%	-4.1
5									
6	Third Payment	1/1/16 12:00 AM	1/1/17 12:00 AM	366.0	07/02/16	9/15/16 12:00 PM	75.5	25.00%	18.9
7									
8	Fourth Payment	1/1/16 12:00 AM	1/1/17 12:00 AM	366.0	07/02/16	12/15/16 12:00 PM	166.5	25.00%	41.6
9									
10									
11									
12	Total								<u>29.25</u>
13									
14									
15									
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18									
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Northern Utilities - New Hampshire Division
Calculation of Income Taxes Lead Lag Days
12 Months Ended Dec 31, 2016
NH State Income Tax

5/18/2017
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Line No	Type of Payment	<u>Tax Period</u>		Total Days	Midpoint Service Period	Scheduled Payment Date	(Lead) Lag Days	Statutory % of Total Taxes for Year	Weighted Days
		<u>Start</u>	<u>End</u>						
1									
2	First Payment	1/1/16 12:00 AM	1/1/17 12:00 AM	366.0	07/02/16	3/15/16 12:00 PM	-108.5	25.00%	-27.1
3									
4	Second Payment	1/1/16 12:00 AM	1/1/17 12:00 AM	366.0	07/02/16	6/15/16 12:00 PM	-16.5	25.00%	-4.1
5									
6	Third Payment	1/1/16 12:00 AM	1/1/17 12:00 AM	366.0	07/02/16	9/15/16 12:00 PM	75.5	25.00%	18.9
7									
8	Fourth Payment	1/1/16 12:00 AM	1/1/17 12:00 AM	366.0	07/02/16	12/15/16 12:00 PM	166.5	25.00%	41.6
9									
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12	Total								<u>29.25</u>
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Northern Utilities, Inc. - New Hampshire Division
Purchased Gas - Calculation of (Lead) Lag
12 Months Ended Dec 31, 2016
Summary of Gas Purchases

Line No	Supplier	Purchased Gas Expensed	(Lead) Lag Days	Weighted Dollar Days
1				
2	<u>Acct 804</u>			
3	Alberta Northeast Gas Limited	\$75,853	39.30	\$2,981,299
4	Algonquin Gas Transmission Co., Inc.	\$173,395	34.24	\$5,937,707
5	Consolidated Edison Energy	\$242,163	38.75	\$9,382,956
6	Distrigas of Massachusetts	\$42,420	41.00	\$1,739,220
7	DTE Energy Trading Inc (CAN)	\$4,545,792	39.41	\$179,170,383
8	DTE Energy Trading Inc (US)	\$513,066	40.01	\$20,528,353
9	Emera Energy Services, Inc.	\$3,251,835	41.07	\$133,542,743
10	Engie Gas & LNG LLC	\$170,114	40.13	\$6,826,075
11	Freeport Commodities	\$2,083,804	40.00	\$83,354,810
12	Granite State Gas Transmission	\$2,158,197	40.87	\$88,198,828
13	Iroquois Gas Transmission System	\$217,159	34.74	\$7,545,140
14	Portland Natural Gas	\$3,891,250	34.12	\$132,782,496
15	Repsol Energy North America Corp	\$7,149,244	31.18	\$222,948,462
16	Sequent Energy Management	\$178,250	39.79	\$7,091,710
17	Shell Energy North America (US) LP	\$673,134	40.27	\$27,110,456
18	Southwestern Energy Services Co.	\$56,038	39.72	\$2,225,982
19	Tenaska Marketing Ventures	\$162,287	40.08	\$6,503,914
20	Tennessee Gas Pipeline	\$1,989,254	37.08	\$73,761,835
21	Texas Eastern Transmission	\$11,537	34.60	\$399,187
22	Vector Pipeline LP	<u>\$1,040,711</u>	30.01	<u>\$31,232,600</u>
23	Total Acct 804	<u>\$28,625,505</u>	36.45	<u>\$1,043,264,156</u>
24				
25				
26	<u>Acct 808 Demand Costs</u>	\$1,287,885	34.06	\$43,863,945
27				
28	Total Gas Costs	<u><u>\$29,913,390</u></u>	36.34	<u><u>\$1,087,128,101</u></u>
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Northern Utilities, Inc. - New Hampshire Division
Purchased Gas - Calculation of (Lead) Lag
12 Months Ended Dec 31, 2016

5/18/2017
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Supplier: Alberta Northeast Gas Limited

Line No	Month	Purchased Gas Expense	Service From	Service To	Total Days	Mid-Point Calculation Date	Payment Date	(Lead) Lag Days	Weighted Dollar Days	Payment Type
1										
2	January-16	\$5,853	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	2/25/16 12:00 PM	40.00	\$234,107	WIRE
3	February-16	\$5,461	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	3/25/16 12:00 PM	39.00	\$212,961	WIRE
4	March-16	\$5,834	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	4/25/16 12:00 PM	40.00	\$233,358	WIRE
5	April-16	\$7,466	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	5/25/16 12:00 PM	39.50	\$294,892	WIRE
6	May-16	\$5,903	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	6/24/16 12:00 PM	39.00	\$230,212	WIRE
7	June-16	\$11,609	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	7/26/16 12:00 PM	40.50	\$470,166	WIRE
8	July-16	\$6,343	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM	8/25/16 12:00 PM	40.00	\$253,727	WIRE
9	August-16	\$6,288	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM	9/23/16 12:00 PM	38.00	\$238,950	WIRE
10	September-16	\$5,934	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM	10/25/16 12:00 PM	39.50	\$234,382	WIRE
11	October-16	\$6,754	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	11/23/16 12:00 PM	38.00	\$256,634	WIRE
12	November-16	\$4,142	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	12/22/16 12:00 PM	36.50	\$151,201	WIRE
13	December-16	\$4,268	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	1/25/17 12:00 PM	40.00	\$170,708	WIRE
14										
15		<u>\$75,853</u>			<u>366</u>			39.30	<u>\$2,981,299</u>	
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Northern Utilities, Inc. - New Hampshire Division
Purchased Gas - Calculation of (Lead) Lag
12 Months Ended Dec 31, 2016

5/18/2017
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Supplier: Algonquin Gas Transmission Co., Inc.

Line No	Month	Purchased Gas Expense	Service From	Service To	Total Days	Mid-Point Calculation Date	Payment Date	(Lead) Lag Days	Weighted Dollar Days	Payment Type
1										
2	January-16	\$14,409	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	2/19/16 12:00 PM	34.00	\$489,921	WIRE
3	February-16	\$14,372	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	3/21/16 12:00 PM	35.00	\$503,024	WIRE
4	March-16	\$14,384	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	4/19/16 12:00 PM	34.00	\$489,048	WIRE
5	April-16	\$14,409	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	5/19/16 12:00 PM	33.50	\$482,717	WIRE
6	May-16	\$14,409	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	6/20/16 12:00 PM	35.00	\$504,331	WIRE
7	June-16	\$14,409	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	7/19/16 12:00 PM	33.50	\$482,717	WIRE
8	July-16	\$14,409	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM	8/19/16 12:00 PM	34.00	\$489,921	WIRE
9	August-16	\$14,409	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM	9/20/16 12:00 PM	35.00	\$504,331	WIRE
10	September-16	\$14,409	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM	10/19/16 12:00 PM	33.50	\$482,717	WIRE
11	October-16	\$14,066	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	11/21/16 12:00 PM	36.00	\$506,375	WIRE
12	November-16	\$14,852	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	12/19/16 12:00 PM	33.50	\$497,555	WIRE
13	December-16	\$14,854	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	1/19/17 12:00 PM	34.00	\$505,051	WIRE
14										
15		<u>\$173,395</u>			<u>366</u>			34.24	<u>\$5,937,707</u>	
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Northern Utilities, Inc. - New Hampshire Division
Purchased Gas - Calculation of (Lead) Lag
12 Months Ended Dec 31, 2016

5/18/2017
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Supplier: Consolidated Edison Energy

Line No	Month	Purchased Gas Expense	Service From	Service To	Total Days	Mid-Point Calculation Date	Payment Date	(Lead) Lag Days	Weighted Dollar Days	Payment Type
1										
2	January-16	\$0	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM			\$0	WIRE
3	February-16	\$0	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM			\$0	WIRE
4	March-16	\$0	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM			\$0	WIRE
5	April-16	\$0	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM			\$0	WIRE
6	May-16	\$60,694	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	6/15/16 12:00 PM	30.00	\$1,820,832	WIRE
7	June-16	\$0	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM			\$0	WIRE
8	July-16	\$0	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM			\$0	WIRE
9	August-16	\$0	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM			\$0	WIRE
10	September-16	\$0	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM			\$0	WIRE
11	October-16	\$0	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM			\$0	WIRE
12	November-16	\$48,762	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	12/29/16 12:00 PM	43.50	\$2,121,136	WIRE
13	December-16	\$132,707	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	1/26/17 12:00 PM	41.00	\$5,440,988	WIRE
14										
15		<u>\$242,163</u>			<u>366</u>			38.75	<u>\$9,382,956</u>	

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Northern Utilities, Inc. - New Hampshire Division
Purchased Gas - Calculation of (Lead) Lag
12 Months Ended Dec 31, 2016

5/18/2017
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Supplier: Distrigas of Massachusetts

Line No	Month	Purchased Gas Expense	Service From	Service To	Total Days	Mid-Point Calculation Date	Payment Date	(Lead) Lag Days	Weighted Dollar Days	Payment Type
1										
2	January-16	\$42,420	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	2/26/16 12:00 PM	41.00	\$1,739,220	WIRE
3	February-16	\$0	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM		(42,415.50)	\$0	WIRE
4	March-16	\$0	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM		(42,445.50)	\$0	WIRE
5	April-16	\$0	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM		(42,476.00)	\$0	WIRE
6	May-16	\$0	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM		(42,506.50)	\$0	WIRE
7	June-16	\$0	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM		(42,537.00)	\$0	WIRE
8	July-16	\$0	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM		(42,567.50)	\$0	WIRE
9	August-16	\$0	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM		(42,598.50)	\$0	WIRE
10	September-16	\$0	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM		(42,629.00)	\$0	WIRE
11	October-16	\$0	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM		(42,659.50)	\$0	WIRE
12	November-16	\$0	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM		(42,690.00)	\$0	WIRE
13	December-16	\$0	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM		(42,720.50)	\$0	WIRE
14										
15		<u>\$42,420</u>			<u>366</u>			41.00	<u>\$1,739,220</u>	

Northern Utilities, Inc. - New Hampshire Division
Purchased Gas - Calculation of (Lead) Lag
12 Months Ended Dec 31, 2016

5/18/2017
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Supplier: DTE Energy Trading Inc (CAN)

Line No	Month	Purchased Gas Expense	Service From	Service To	Total Days	Mid-Point Calculation Date	Payment Date	(Lead) Lag Days	Weighted Dollar Days	Payment Type
1										
2	January-16	\$360,897	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	2/24/16 12:00 PM	39.00	\$14,074,967	WIRE
3	February-16	\$377,178	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	3/28/16 12:00 PM	42.00	\$15,841,477	WIRE
4	March-16	\$392,946	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	4/22/16 12:00 PM	37.00	\$14,539,007	WIRE
5	April-16	\$378,919	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	5/24/16 12:00 PM	38.50	\$14,588,378	WIRE
6	May-16	\$383,641	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	6/24/16 12:00 PM	39.00	\$14,962,013	WIRE
7	June-16	\$379,532	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	7/25/16 12:00 PM	39.50	\$14,991,517	WIRE
8	July-16	\$385,141	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM	8/25/16 12:00 PM	40.00	\$15,405,655	WIRE
9	August-16	\$378,482	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM	9/23/16 12:00 PM	38.00	\$14,382,321	WIRE
10	September-16	\$372,584	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM	10/25/16 12:00 PM	39.50	\$14,717,068	WIRE
11	October-16	\$368,541	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	11/23/16 12:00 PM	38.00	\$14,004,575	WIRE
12	November-16	\$378,478	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	12/28/16 12:00 PM	42.50	\$16,085,326	WIRE
13	December-16	\$389,452	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	1/25/17 12:00 PM	40.00	\$15,578,080	WIRE
14										
15		<u>\$4,545,792</u>			<u>366</u>			39.41	<u>\$179,170,383</u>	
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Northern Utilities, Inc. - New Hampshire Division
Purchased Gas - Calculation of (Lead) Lag
12 Months Ended Dec 31, 2016

5/18/2017
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Supplier: DTE Energy Trading Inc (US)

Line No	Month	Purchased Gas Expense	Service From	Service To	Total Days	Mid-Point Calculation Date	Payment Date	(Lead) Lag Days	Weighted Dollar Days	Payment Type
1										
2	January-16	\$88,015	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	2/26/16 12:00 PM	41.00	\$3,608,596	WIRE
3	February-16	\$82,309	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	3/25/16 12:00 PM	39.00	\$3,210,066	WIRE
4	March-16	\$78,872	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	4/25/16 12:00 PM	40.00	\$3,154,899	WIRE
5	April-16	\$0	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM			\$0	
6	May-16	\$0	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM			\$0	
7	June-16	\$0	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM			\$0	
8	July-16	\$0	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM			\$0	
9	August-16	\$0	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM			\$0	
10	September-16	\$0	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM			\$0	
11	October-16	\$187,766	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	11/25/16 12:00 PM	40.00	\$7,510,644	WIRE
12	November-16	\$0	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM			\$0	
13	December-16	\$76,104	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	1/25/17 12:00 PM	40.00	\$3,044,149	WIRE
14										
15		<u>\$513,066</u>			<u>366</u>			40.01	<u>\$20,528,353</u>	
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Northern Utilities, Inc. - New Hampshire Division
Purchased Gas - Calculation of (Lead) Lag
12 Months Ended Dec 31, 2016

5/18/2017
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Supplier: Emera Energy Services, Inc.

Line No	Month	Purchased Gas Expense	Service From	Service To	Total Days	Mid-Point Calculation Date	Payment Date	(Lead) Lag Days	Weighted Dollar Days	Payment Type
1										
2	January-16	\$663,040	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	2/26/16 12:00 PM	41.00	\$27,184,627	WIRE
3	February-16	\$606,787	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	3/29/16 12:00 PM	43.00	\$26,091,839	WIRE
4	March-16	\$234,925	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	4/27/16 12:00 PM	42.00	\$9,866,837	WIRE
5	April-16	\$0	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM			\$0	
6	May-16	\$382,691	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	6/24/16 12:00 PM	39.00	\$14,924,963	WIRE
7	June-16	\$0	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM			\$0	
8	July-16	\$0	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM			\$0	
9	August-16	\$0	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM			\$0	
10	September-16	\$0	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM			\$0	
11	October-16	\$294,677	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	11/25/16 12:00 PM	40.00	\$11,787,065	WIRE
12	November-16	\$359,508	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	12/28/16 12:00 PM	42.50	\$15,279,073	WIRE
13	December-16	\$710,208	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	1/25/17 12:00 PM	40.00	\$28,408,338	WIRE
14										
15		<u>\$3,251,835</u>			<u>366</u>			41.07	<u>\$133,542,743</u>	
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Northern Utilities, Inc. - New Hampshire Division
Purchased Gas - Calculation of (Lead) Lag
12 Months Ended Dec 31, 2016

5/18/2017
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Supplier: Engie Gas & LNG LLC

Line No	Month	Purchased Gas Expense	Service From	Service To	Total Days	Mid-Point Calculation Date	Payment Date	(Lead) Lag Days	Weighted Dollar Days	Payment Type
1										
2	January-16	\$0	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM			\$0	WIRE
3	February-16	\$42,420	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	3/25/16 12:00 PM	39.00	\$1,654,380	WIRE
4	March-16	\$42,420	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	4/25/16 12:00 PM	40.00	\$1,696,800	WIRE
5	April-16	\$0	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM			\$0	WIRE
6	May-16	\$0	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM			\$0	WIRE
	June-16	\$0	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM			\$0	WIRE
7	July-16	\$0	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM			\$0	WIRE
8	August-16	\$0	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM			\$0	WIRE
9	September-16	\$0	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM			\$0	WIRE
10	October-16	\$0	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM			\$0	WIRE
11	November-16	\$42,637	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	12/27/16 12:00 PM	41.50	\$1,769,425	WIRE
12	December-16	\$42,637	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	1/25/17 12:00 PM	40.00	\$1,705,470	WIRE
13										
14		<u>\$170,114</u>						40.13	<u>\$6,826,075</u>	
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Northern Utilities, Inc. - New Hampshire Division
Purchased Gas - Calculation of (Lead) Lag
12 Months Ended Dec 31, 2016

5/18/2017
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Supplier: Freepoint Commodities

Line No	Month	Purchased Gas Expense	Service From	Service To	Total Days	Mid-Point Calculation Date	Payment Date	(Lead) Lag Days	Weighted Dollar Days	Payment Type
1										
2	January-16	\$623,691	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	2/26/16 12:00 PM	41.00	\$25,571,326	WIRE
3	February-16	\$586,660	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	3/25/16 12:00 PM	39.00	\$22,879,732	WIRE
4	March-16	\$569,037	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	4/25/16 12:00 PM	40.00	\$22,761,467	WIRE
5	April-16	\$202,719	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	5/25/16 12:00 PM	39.50	\$8,007,385	WIRE
6	May-16	\$0	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM			\$0	WIRE
7	June-16	\$0	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM			\$0	WIRE
8	July-16	\$0	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM			\$0	WIRE
9	August-16	\$0	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM			\$0	WIRE
10	September-16	\$0	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM			\$0	WIRE
11	October-16	\$0	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM			\$0	WIRE
12	November-16	\$44,642	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	12/27/16 12:00 PM	41.50	\$1,852,633	WIRE
13	December-16	\$57,057	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	1/25/17 12:00 PM	40.00	\$2,282,267	WIRE
14										
15		<u>\$2,083,804</u>			<u>366</u>			40.00	<u>\$83,354,810</u>	

Northern Utilities, Inc. - New Hampshire Division
Purchased Gas - Calculation of (Lead) Lag
12 Months Ended Dec 31, 2016

5/18/2017
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Supplier: Granite State Gas Transmission

Line No	Month	Purchased Gas Expense	Service From	Service To	Total Days	Mid-Point Calculation Date	Payment Date	(Lead) Lag Days	Weighted Dollar Days	Payment Type
1										
2	January-16	\$200,915	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	2/26/16 12:00 PM	41.00	\$8,237,530	Intercompany
3	February-16	\$200,628	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	3/25/16 12:00 PM	39.00	\$7,824,492	Intercompany
4	March-16	\$200,646	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	4/25/16 12:00 PM	40.00	\$8,025,828	Intercompany
5	April-16	\$148,269	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	5/25/16 12:00 PM	39.50	\$5,856,638	Intercompany
6	May-16	\$148,179	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	6/30/16 12:00 PM	45.00	\$6,668,038	Intercompany
7	June-16	\$148,133	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	7/28/16 12:00 PM	42.50	\$6,295,646	Intercompany
8	July-16	\$154,537	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM	8/30/16 12:00 PM	45.00	\$6,954,180	Intercompany
9	August-16	\$154,541	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM	9/28/16 12:00 PM	43.00	\$6,645,244	Intercompany
10	September-16	\$154,604	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM	10/25/16 12:00 PM	39.50	\$6,106,875	Intercompany
11	October-16	\$215,635	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	11/28/16 12:00 PM	43.00	\$9,272,294	Intercompany
12	November-16	\$216,096	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	12/22/16 12:00 PM	36.50	\$7,887,493	Intercompany
13	December-16	\$216,015	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	1/24/17 12:00 PM	39.00	\$8,424,569	Intercompany
14										
15		<u>\$2,158,197</u>			<u>366</u>			40.87	<u>\$88,198,828</u>	
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Northern Utilities, Inc. - New Hampshire Division
Purchased Gas - Calculation of (Lead) Lag
12 Months Ended Dec 31, 2016

5/18/2017
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Supplier: Iroquois Gas Transmission System

Line No	Month	Purchased Gas Expense	Service From	Service To	Total Days	Mid-Point Calculation Date	Payment Date	(Lead) Lag Days	Weighted Dollar Days	Payment Type
1										
2	January-16	\$18,383	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	2/19/16 12:00 PM	34.00	\$625,032	WIRE
3	February-16	\$18,383	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	3/21/16 12:00 PM	35.00	\$643,415	WIRE
4	March-16	\$18,383	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	4/20/16 12:00 PM	35.00	\$643,415	WIRE
5	April-16	\$18,383	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	5/20/16 12:00 PM	34.50	\$634,223	WIRE
6	May-16	\$18,383	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	6/20/16 12:00 PM	35.00	\$643,415	WIRE
7	June-16	\$18,383	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	7/20/16 12:00 PM	34.50	\$634,223	WIRE
8	July-16	\$18,383	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM	8/19/16 12:00 PM	34.00	\$625,032	WIRE
9	August-16	\$18,383	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM	9/20/16 12:00 PM	35.00	\$643,415	WIRE
10	September-16	\$17,257	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM	10/20/16 12:00 PM	34.50	\$595,355	WIRE
11	October-16	\$17,257	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	11/21/16 12:00 PM	36.00	\$621,240	WIRE
12	November-16	\$17,790	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	12/20/16 12:00 PM	34.50	\$613,741	WIRE
13	December-16	\$17,790	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	1/20/17 12:00 PM	35.00	\$622,635	WIRE
14										
15		<u>\$217,159</u>			<u>366</u>			34.74	<u>\$7,545,140</u>	
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Northern Utilities, Inc. - New Hampshire Division
Purchased Gas - Calculation of (Lead) Lag
12 Months Ended Dec 31, 2016

5/18/2017
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Supplier: Portland Natural Gas

Line No	Month	Purchased Gas Expense	Service From	Service To	Total Days	Mid-Point Calculation Date	Payment Date	(Lead) Lag Days	Weighted Dollar Days	Payment Type
1										
2	January-16	\$776,869	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	2/19/16 12:00 PM	34.00	\$26,413,559	WIRE
3	February-16	\$745,604	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	3/18/16 12:00 PM	32.00	\$23,859,339	WIRE
4	March-16	\$703,251	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	4/20/16 12:00 PM	35.00	\$24,613,789	WIRE
5	April-16	\$19,811	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	5/20/16 12:00 PM	34.50	\$683,496	WIRE
6	May-16	\$12,138	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	6/20/16 12:00 PM	35.00	\$424,825	WIRE
7	June-16	\$12,136	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	7/20/16 12:00 PM	34.50	\$418,704	WIRE
8	July-16	\$12,136	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM	8/19/16 12:00 PM	34.00	\$412,622	WIRE
9	August-16	\$12,136	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM	9/20/16 12:00 PM	35.00	\$424,771	WIRE
10	September-16	\$12,136	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM	10/20/16 12:00 PM	34.50	\$418,693	WIRE
11	October-16	\$12,136	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	11/21/16 12:00 PM	36.00	\$436,885	WIRE
12	November-16	\$751,090	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	12/20/16 12:00 PM	34.50	\$25,912,600	WIRE
13	December-16	\$821,806	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	1/20/17 12:00 PM	35.00	\$28,763,214	WIRE
14										
15		<u>\$3,891,250</u>			<u>366</u>			34.12	<u>\$132,782,496</u>	
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Northern Utilities, Inc. - New Hampshire Division
Purchased Gas - Calculation of (Lead) Lag
12 Months Ended Dec 31, 2016

5/18/2017
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Supplier: Repsol Energy North America Corp

Line No	Month	Purchased Gas Expense	Service From	Service To	Total Days	Mid-Point Calculation Date	Payment Date	(Lead) Lag Days	Weighted Dollar Days	Payment Type
1										
2	January-16	\$1,451,872	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	2/10/16 12:00 PM	25.00	\$36,296,793	WIRE
3	February-16	\$1,652,915	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	3/11/16 12:00 PM	25.00	\$41,322,869	WIRE
4	March-16	\$1,287,967	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	4/11/16 12:00 PM	26.00	\$33,487,143	WIRE
5	April-16	\$55,427	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	5/25/16 12:00 PM	39.50	\$2,189,356	WIRE
6	May-16	\$125,277	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	6/27/16 12:00 PM	42.00	\$5,261,634	WIRE
7	June-16	\$47,239	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	7/25/16 12:00 PM	39.50	\$1,865,927	WIRE
8	July-16	\$62,637	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM	8/25/16 12:00 PM	40.00	\$2,505,470	WIRE
9	August-16	\$60,168	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM	9/26/16 12:00 PM	41.00	\$2,466,881	WIRE
10	September-16	\$61,396	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM	10/25/16 12:00 PM	39.50	\$2,425,135	WIRE
11	October-16	\$65,982	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	11/25/16 12:00 PM	40.00	\$2,639,286	WIRE
12	November-16	\$902,241	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	12/27/16 12:00 PM	41.50	\$37,442,983	WIRE
13	December-16	\$1,376,125	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	1/25/17 12:00 PM	40.00	\$55,044,987	WIRE
14										
15		<u>\$7,149,244</u>			<u>366</u>			31.18	<u>\$222,948,462</u>	
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Northern Utilities, Inc. - New Hampshire Division
Purchased Gas - Calculation of (Lead) Lag
12 Months Ended Dec 31, 2016

5/18/2017
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Supplier: Sequent Energy Management

Line No	Month	Purchased Gas Expense	Service From	Service To	Total Days	Mid-Point Calculation Date	Payment Date	(Lead) Lag Days	Weighted Dollar Days	Payment Type
1										
2	January-16	\$46,256	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	2/25/16 12:00 PM	40.00	\$1,850,253	WIRE
3	February-16	\$38,298	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	3/25/16 12:00 PM	39.00	\$1,493,606	WIRE
4	March-16	\$19,918	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	4/25/16 12:00 PM	40.00	\$796,732	WIRE
5	April-16	\$0	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM			\$0	WIRE
6	May-16	\$0	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM			\$0	WIRE
7	June-16	\$0	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM			\$0	WIRE
8	July-16	\$0	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM			\$0	WIRE
9	August-16	\$0	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM			\$0	WIRE
10	September-16	\$0	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM			\$0	WIRE
11	October-16	\$0	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM			\$0	WIRE
12	November-16	\$0	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM			\$0	WIRE
13	December-16	\$73,778	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	1/25/17 12:00 PM	40.00	\$2,951,118	WIRE
14										
15		<u>\$178,250</u>			<u>366</u>			39.79	<u>\$7,091,710</u>	
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Northern Utilities, Inc. - New Hampshire Division
Purchased Gas - Calculation of (Lead) Lag
12 Months Ended Dec 31, 2016

5/18/2017
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Supplier: Shell Energy North America (US) LP

Line No	Month	Purchased Gas Expense	Service From	Service To	Total Days	Mid-Point Calculation Date	Payment Date	(Lead) Lag Days	Weighted Dollar Days	Payment Type
1										
2	January-16	\$123,239	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	2/26/16 12:00 PM	41.00	\$5,052,788	WIRE
3	February-16	\$108,570	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	3/25/16 12:00 PM	39.00	\$4,234,237	WIRE
4	March-16	\$80,831	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	4/25/16 12:00 PM	40.00	\$3,233,240	WIRE
5	April-16	\$0	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM			\$0	WIRE
6	May-16	\$0	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM			\$0	WIRE
7	June-16	\$34,522	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	7/25/16 12:00 PM	39.50	\$1,363,618	WIRE
8	July-16	\$0	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM			\$0	WIRE
9	August-16	\$0	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM			\$0	WIRE
10	September-16	\$0	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM			\$0	WIRE
11	October-16	\$4,269	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	11/25/16 12:00 PM	40.00	\$170,748	WIRE
12	November-16	\$125,117	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	12/27/16 12:00 PM	41.50	\$5,192,350	WIRE
13	December-16	\$196,587	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	1/25/17 12:00 PM	40.00	\$7,863,474	WIRE
14										
15		<u>\$673,134</u>			<u>366</u>			40.27	<u>\$27,110,456</u>	
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Northern Utilities, Inc. - New Hampshire Division
Purchased Gas - Calculation of (Lead) Lag
12 Months Ended Dec 31, 2016

5/18/2017
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Supplier: Southwestern Energy Services Co.

Line No	Month	Purchased Gas Expense	Service From	Service To	Total Days	Mid-Point Calculation Date	Payment Date	(Lead) Lag Days	Weighted Dollar Days	Payment Type
1										
2	January-16	\$0	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM				\$0 Cashpool Transfer
3	February-16	\$0	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM				\$0 Cashpool Transfer
4	March-16	\$0	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM				\$0 Cashpool Transfer
5	April-16	\$31,050	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	5/25/16 12:00 PM	39.50	\$1,226,456	Cashpool Transfer
6	May-16	\$0	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM				\$0 Cashpool Transfer
7	June-16	\$0	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM				\$0 Cashpool Transfer
8	July-16	\$0	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM				\$0 Cashpool Transfer
9	August-16	\$0	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM				\$0 Cashpool Transfer
10	September-16	\$0	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM				\$0 Cashpool Transfer
11	October-16	\$0	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM				\$0 Cashpool Transfer
12	November-16	\$0	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM				\$0 Cashpool Transfer
13	December-16	\$24,988	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	1/25/17 12:00 PM	40.00	\$999,526	Cashpool Transfer
14										
15		\$56,038			366			39.72	\$2,225,982	
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Northern Utilities, Inc. - New Hampshire Division
Purchased Gas - Calculation of (Lead) Lag
12 Months Ended Dec 31, 2016

5/18/2017
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Supplier: Tenaska Marketing Ventures

Line No	Month	Purchased Gas Expense	Service From	Service To	Total Days	Mid-Point Calculation Date	Payment Date	(Lead) Lag Days	Weighted Dollar Days	Payment Type
1										
2	January-16	\$65,846	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	2/26/16 12:00 PM	41.00	\$2,699,669	WIRE
3	February-16	\$53,428	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	3/25/16 12:00 PM	39.00	\$2,083,687	WIRE
4	March-16	\$43,014	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	4/25/16 12:00 PM	40.00	\$1,720,558	WIRE
5	April-16	\$0	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM			\$0	WIRE
6	May-16	\$0	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM			\$0	WIRE
7	June-16	\$0	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM			\$0	WIRE
8	July-16	\$0	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM			\$0	WIRE
9	August-16	\$0	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM			\$0	WIRE
10	September-16	\$0	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM			\$0	WIRE
11	October-16	\$0	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM			\$0	WIRE
12	November-16	\$0	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM			\$0	WIRE
13	December-16	\$0	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM			\$0	WIRE
14										
15		<u>\$162,287</u>			<u>366</u>			40.08	<u>\$6,503,914</u>	
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Northern Utilities, Inc. - New Hampshire Division
Purchased Gas - Calculation of (Lead) Lag
12 Months Ended Dec 31, 2016

5/18/2017
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Supplier: Tennessee Gas Pipeline

Line No	Month	Purchased Gas Expense	Service From	Service To	Total Days	Mid-Point Calculation Date	Payment Date	(Lead) Lag Days	Weighted Dollar Days	Payment Type
1										
2	January-16	\$166,801	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	2/22/16 12:00 PM	37.00	\$6,171,642	WIRE
3	February-16	\$166,625	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	3/21/16 12:00 PM	35.00	\$5,831,866	WIRE
4	March-16	\$165,889	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	4/22/16 12:00 PM	37.00	\$6,137,896	WIRE
5	April-16	\$165,547	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	5/23/16 12:00 PM	37.50	\$6,208,017	WIRE
6	May-16	\$165,624	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	6/20/16 12:00 PM	35.00	\$5,796,828	WIRE
7	June-16	\$164,519	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	7/25/16 12:00 PM	39.50	\$6,498,501	WIRE
8	July-16	\$161,647	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM	8/22/16 12:00 PM	37.00	\$5,980,925	WIRE
9	August-16	\$161,852	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM	9/23/16 12:00 PM	38.00	\$6,150,385	WIRE
10	September-16	\$161,660	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM	10/24/16 12:00 PM	38.50	\$6,223,895	WIRE
11	October-16	\$164,549	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	11/21/16 12:00 PM	36.00	\$5,923,756	WIRE
12	November-16	\$169,647	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	12/22/16 12:00 PM	36.50	\$6,192,118	WIRE
13	December-16	\$174,895	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	1/23/17 12:00 PM	38.00	\$6,646,007	WIRE
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15		<u>\$1,989,254</u>			<u>366</u>			37.08	<u>\$73,761,835</u>	
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Northern Utilities, Inc. - New Hampshire Division
Purchased Gas - Calculation of (Lead) Lag
12 Months Ended Dec 31, 2016

5/18/2017
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Supplier: Texas Eastern Transmission

Line No	Month	Purchased Gas Expense	Service From	Service To	Total Days	Mid-Point Calculation Date	Payment Date	(Lead) Lag Days	Weighted Dollar Days	Payment Type
1										
2	January-16		1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM			\$0	
3	February-16	\$2,288	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	3/21/16 12:00 PM	35.00	\$80,076	WIRE
4	March-16		3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM			\$0	
5	April-16	\$2,288	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	5/20/16 12:00 PM	34.50	\$78,932	WIRE
6	May-16		5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM			\$0	
7	June-16	\$2,288	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	7/20/16 12:00 PM	34.50	\$78,932	WIRE
8	July-16		7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM			\$0	
9	August-16		8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM			\$0	
10	September-16	\$2,301	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM	10/20/16 12:00 PM	34.50	\$79,398	WIRE
11	October-16		10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM			\$0	
12	November-16	\$2,372	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	12/20/16 12:00 PM	34.50	\$81,850	WIRE
13	December-16		12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM			\$0	
14										
15		<u>\$11,537</u>			<u>366</u>			34.60	<u>\$399,187</u>	
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Northern Utilities, Inc. - New Hampshire Division
Purchased Gas - Calculation of (Lead) Lag
12 Months Ended Dec 31, 2016

5/18/2017
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Supplier: Vector Pipeline LP

Line No	Month	Purchased Gas Expense	Service From	Service To	Total Days	Mid-Point Calculation Date	Payment Date	(Lead) Lag Days	Weighted Dollar Days	Payment Type
1										
2	January-16	\$109,386	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	2/12/16 12:00 PM	27.00	\$2,953,428	WIRE
3	February-16	\$109,437	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	3/14/16 12:00 PM	28.00	\$3,064,249	WIRE
4	March-16	\$109,471	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	4/18/16 12:00 PM	33.00	\$3,612,534	WIRE
5	April-16	\$71,110	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	5/13/16 12:00 PM	27.50	\$1,955,536	WIRE
6	May-16	\$71,106	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	6/16/16 12:00 PM	31.00	\$2,204,293	WIRE
7	June-16	\$71,105	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	7/18/16 12:00 PM	32.50	\$2,310,899	WIRE
8	July-16	\$71,105	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM	8/15/16 12:00 PM	30.00	\$2,133,152	WIRE
9	August-16	\$71,088	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM	9/16/16 12:00 PM	31.00	\$2,203,714	WIRE
10	September-16	\$71,089	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM	10/17/16 12:00 PM	31.50	\$2,239,299	WIRE
11	October-16	\$71,076	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	11/17/16 12:00 PM	32.00	\$2,274,416	WIRE
12	November-16	\$107,362	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	12/16/16 12:00 PM	30.50	\$3,274,527	WIRE
13	December-16	\$107,377	12/1/16 12:00 AM	1/1/17 12:00 AM	31	12/16/16 12:00 PM	1/13/17 12:00 PM	28.00	\$3,006,553	WIRE
14										
15		<u>\$1,040,711</u>			<u>366</u>			30.01	<u>\$31,232,600</u>	
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Northern Utilities, Inc. - New Hampshire Division
Purchased Demand - Calculation of (Lead) Lag
12 Months Ended Dec 31, 2016
Summary of Gas Purchases

Line No	Supplier	Purchased Demand Expensed	(Lead) Lag Days	Weighted Dollar Days
1				
2	<u>Acct 30-49-13-10-8080200 Flowthru</u>			
3	Tennessee Gas Pipeline	\$58,792	37.22	\$2,187,990
4	Washington 10 Storage Corporation	<u>\$1,229,093</u>	33.91	<u>\$41,675,956</u>
5	Total Flowthru	<u>\$1,287,885</u>	34.06	<u>\$43,863,945</u>
6				
7				
8	<u>Acct 30-49-13-10-8080200 Base</u>			
9				
10				
11				
12	Total Acct 30-49-13-10-8080200	<u><u>\$1,287,885</u></u>		
13				
14	Total Acct 30-49-13-10-8080200, per ledger	\$1,287,885	<i>Pulls from sort tab</i>	
15			\$0 CGA Sort tracks voucher activity when 'paid'. Totals above are for service period.	
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17		0.00%		
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Northern Utilities, Inc. - New Hampshire Division
Purchased Demand - Calculation of (Lead) Lag
12 Months Ended Dec 31, 2016

5/18/2017
2:09:24 PM

Supplier: Tennessee Gas Pipeline

Line No	Month	Purchased Gas Expense	Service From	Service To	Total Days	Mid-Point Calculation Date	Payment Date	(Lead) Lag Days	Weighted Dollar Days	Payment Type
1										
2	January-16	\$4,256	12/1/15 12:00 AM	1/1/16 12:00 AM	31	12/16/15 12:00 PM	1/25/16 12:00 PM	40.00	\$170,258	WIRE
3	February-16	\$4,944	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	2/22/16 12:00 PM	37.00	\$182,924	WIRE
4	March-16	\$4,944	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	3/21/16 12:00 PM	35.00	\$173,036	WIRE
5	April-16	\$4,944	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	4/22/16 12:00 PM	37.00	\$182,924	WIRE
6	May-16	\$4,944	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	5/23/16 12:00 PM	37.50	\$185,396	WIRE
7	June-16	\$4,944	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	6/20/16 12:00 PM	35.00	\$173,036	WIRE
8	July-16	\$4,944	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	7/25/16 12:00 PM	39.50	\$195,283	WIRE
9	August-16	\$4,944	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM	8/22/16 12:00 PM	37.00	\$182,924	WIRE
10	September-16	\$4,944	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM	9/23/16 12:00 PM	38.00	\$187,867	WIRE
11	October-16	\$4,944	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM	10/24/16 12:00 PM	38.50	\$190,339	WIRE
12	November-16	\$4,944	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	11/21/16 12:00 PM	36.00	\$177,980	WIRE
13	December-16	\$5,097	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	12/22/16 12:00 PM	36.50	\$186,024	WIRE
14										
15		<u>\$58,792</u>			<u>366</u>			37.22	<u>\$2,187,990</u>	
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Northern Utilities, Inc. - New Hampshire Division
Purchased Demand - Calculation of (Lead) Lag
12 Months Ended Dec 31, 2016

5/18/2017
2:09:24 PM

Supplier: Washington 10 Storage Corporation

Line No	Month	Purchased Gas Expense	Service From	Service To	Total Days	Mid-Point Calculation Date	Payment Date	(Lead) Lag Days	Weighted Dollar Days	Payment Type
1										
2	January-16	\$102,162	12/1/15 12:00 AM	1/1/16 12:00 AM	31	12/16/15 12:00 PM	1/20/16 12:00 PM	35.00	\$3,575,653	WIRE
3	February-16	\$102,162	1/1/16 12:00 AM	2/1/16 12:00 AM	31	1/16/16 12:00 PM	2/19/16 12:00 PM	34.00	\$3,473,491	WIRE
4	March-16	\$102,162	2/1/16 12:00 AM	3/1/16 12:00 AM	29	2/15/16 12:00 PM	3/18/16 12:00 PM	32.00	\$3,269,168	WIRE
5	April-16	\$102,162	3/1/16 12:00 AM	4/1/16 12:00 AM	31	3/16/16 12:00 PM	4/20/16 12:00 PM	35.00	\$3,575,653	WIRE
6	May-16	\$102,162	4/1/16 12:00 AM	5/1/16 12:00 AM	30	4/16/16 12:00 AM	5/20/16 12:00 PM	34.50	\$3,524,572	WIRE
7	June-16	\$102,162	5/1/16 12:00 AM	6/1/16 12:00 AM	31	5/16/16 12:00 PM	6/20/16 12:00 PM	35.00	\$3,575,653	WIRE
8	July-16	\$102,162	6/1/16 12:00 AM	7/1/16 12:00 AM	30	6/16/16 12:00 AM	7/20/16 12:00 PM	34.50	\$3,524,572	WIRE
9	August-16	\$102,162	7/1/16 12:00 AM	8/1/16 12:00 AM	31	7/16/16 12:00 PM	8/19/16 12:00 PM	34.00	\$3,473,491	WIRE
10	September-16	\$102,162	8/1/16 12:00 AM	9/1/16 12:00 AM	31	8/16/16 12:00 PM	9/20/16 12:00 PM	35.00	\$3,575,653	WIRE
11	October-16	\$102,162	9/1/16 12:00 AM	10/1/16 12:00 AM	30	9/16/16 12:00 AM	10/20/16 12:00 PM	34.50	\$3,524,572	WIRE
12	November-16	\$102,162	10/1/16 12:00 AM	11/1/16 12:00 AM	31	10/16/16 12:00 PM	11/18/16 12:00 PM	33.00	\$3,371,330	WIRE
13	December-16	\$105,316	11/1/16 12:00 AM	12/1/16 12:00 AM	30	11/16/16 12:00 AM	12/16/16 12:00 PM	30.50	\$3,212,151	WIRE
14										
15		<u>\$1,229,093</u>			<u>366</u>			33.91	<u>\$41,675,956</u>	
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