

Anticipated Cost of Gas
New Hampshire Division
Period Covered: November 1, 2016 - April 30, 2017

(Col 1)	(Col 2)	(Col 3)
<u>ANTICIPATED DIRECT COST OF GAS</u>		
Purchased Gas:		
Demand Costs:	\$2,760,644	
Supply Costs:	\$9,964,565	
Storage & Peaking Gas:		
Demand, Capacity:	\$9,240,209	
Commodity Costs:	\$3,496,207	
Hedging (Gain)/Cost	\$64,809	
Interruptible Included Above	\$0	
Inventory Finance Charge	\$2,038	
Capacity Release, & Asset Management	<u>(\$3,672,857)</u>	
Total Anticipated Direct Cost of Gas		<u>\$21,855,615</u>
<u>ANTICIPATED INDIRECT COST OF GAS</u>		
Adjustments:		
Prior Period Under/(Over) Collection	\$850,112	
NH PUC Consultant Costs	\$20,828	
Interest	(\$901)	
Refunds	\$0	
<u>Interruptible Margins</u>	<u>\$0</u>	
Total Adjustments		\$870,039
Working Capital:		
Total Anticipated Direct Cost of Gas	\$21,855,615	
Working Capital Percentage	<u>0.0887%</u>	
Working Capital Allowance	\$ 19,386	
Plus: Working Capital Reconciliation (Acct 182.11)	<u>\$651</u>	
Total Working Capital Allowance		\$20,037
Bad Debt:		
Bad Debt Allowance	\$187,199	
Plus: Bad Debt Reconciliation (Acct 182.16)	\$82,676	
Total Bad Debt Allowance		\$269,875
Local Production and Storage Capacity		\$420,658
Miscellaneous Overhead-79.76% Allocated to Winter Season		\$408,908
Total Anticipated Indirect Cost of Gas		\$1,989,516
Total Cost of Gas		<u>\$23,845,132</u>

Issued: November 1, 2016
 Effective Date: November 1, 2016

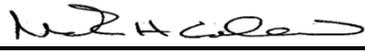
Issued By: 
 Senior Vice President

Authorized by NHPUC Order No. 25,959 in Docket No. DG 16-819, dated October 26, 2016

Anticipated Cost of Gas
New Hampshire Division
Period Covered: May 1, 2017 - October 31, 2017

	(Col 1)	(Col 2)	(Col 3)
<u>ANTICIPATED DIRECT COST OF GAS</u>			
Purchased Gas:			
Demand Costs:		\$437,194	
Supply Costs:		\$2,032,100	
Storage & Peaking Gas:			
Demand, Capacity:		\$401,228	
Commodity Costs:		\$29,565	
Hedging (Gain)/Cost		\$0	
Interruptible Included Above		\$0	
Inventory Finance Charge		\$0	
Capacity Release, & Asset Management		\$0	
Total Anticipated Direct Cost of Gas			<u>\$2,900,087</u>
<u>ANTICIPATED INDIRECT COST OF GAS</u>			
Adjustments:			
Prior Period Under/(Over) Collection		\$215,716	
NH PUC Consultant Costs		\$2,169	
Interest		(\$17,900)	
Refunds		\$0	
<u>Interruptible Margins</u>		\$0	
Total Adjustments			\$199,985
Working Capital:			
Total Anticipated Direct Cost of Gas		\$2,900,087	
Working Capital Percentage		<u>0.0887%</u>	
Working Capital Allowance		\$2,572	
Plus: Working Capital Reconciliation (Acct 182.11)		\$165	
Total Working Capital Allowance			\$2,738
Bad Debt:			
Bad Debt Allowance		\$18,846	
Plus: Bad Debt Reconciliation (Acct 182.16)		\$20,979	
Total Bad Debt Allowance			\$39,825
Local Production and Storage Capacity			\$0
Miscellaneous Overhead-20.24% Allocated to the Summer Season			\$103,760
Total Anticipated Indirect Cost of Gas			\$346,308
Total Cost of Gas			<u>\$3,246,395</u>

Issued: November 1, 2016
 Effective Date: May 1, 2017

Issued By: 
 Senior Vice President

Authorized by NHPUC Order No. 25,959 in Docket No. DG 16-819, dated October 26, 2016

CALCULATION OF FIRM SALES COST OF GAS RATE

Period Covered: November 1, 2016 - April 30, 2017

(Col 1)	(Col 2)	(Col 3)
Total Anticipated Direct Cost of Gas	\$21,855,615	
Projected Prorated Sales (11/01/16 - 04/30/17)	31,549,237	
Direct Cost of Gas Rate		\$0.6927 per therm
Demand Cost of Gas Rate	\$8,327,997	\$0.2640 per therm
Commodity Cost of Gas Rate	<u>\$13,527,619</u>	<u>\$0.4287</u> per therm
Total Direct Cost of Gas Rate	\$21,855,615	\$0.6927 per therm
Total Anticipated Indirect Cost of Gas	\$1,989,516	
Projected Prorated Sales (11/01/16 - 04/30/17)	31,549,237	
Indirect Cost of Gas		\$0.0631 per therm
TOTAL PERIOD AVERAGE COST OF GAS		\$0.7558 per therm

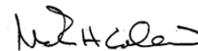
RESIDENTIAL COST OF GAS RATE - 11/01/16	COGwr	\$0.7558 per therm
	Maximum (COG+25%)	\$0.9448

COM/IND LOW WINTER USE COST OF GAS RATE - 11/01/16	COGwl	\$0.6801 per therm
	Maximum (COG+25%)	\$0.8501

C&I HLF DEMAND COSTS ALLOCATED PER SMBA	\$382,221
PLUS: RESIDENTIAL DEMAND RELOCATION TO C&I HLF	<u>\$66,032</u>
C&I HLF TOTAL ADJUSTED DEMAND COSTS	\$448,254
C&I HLF PROJECTED PRORATED SALES (11/01/16 - 04/30/17)	2,570,611
DEMAND COST OF GAS RATE	\$0.1744
C&I HLF COMMODITY COSTS ALLOCATED PER SMBA	\$1,139,040
PLUS: RESIDENTIAL COMMODITY REALLOCATION TO C&I HLF	<u>(\$1,261)</u>
C&I HLF TOTAL ADJUSTED COMMODITY COSTS	\$1,137,779
C&I HLF PROJECTED PRORATED SALES (11/01/16 - 04/30/17)	2,570,611
COMMODITY COST OF GAS RATE	\$0.4426
INDIRECT COST OF GAS	\$0.0631
TOTAL C&I HLF COST OF GAS RATE	\$0.6801

COM/IND HIGH WINTER USE COST OF GAS RATE - 11/01/16	COGwh	\$0.7696 per therm
	Maximum (COG+25%)	\$0.9620

C&I LLF COMMODITY COSTS ALLOCATED PER SMBA	\$3,393,311
PLUS RESIDENTIAL DEMAND REALLOCATION TO C&I LLF	<u>\$586,225</u>
C&I LLF TOTAL ADJUSTED DEMAND COSTS	\$3,979,536
C&I LLF PROJECTED PRORATED SALES (11/01/16 - 04/30/17)	14,203,338
DEMAND COST OF GAS RATE	\$0.2802
C&I LLF COMMODITY COSTS ALLOCATED PER SMBA	\$6,061,232
PLUS: RESIDENTIAL COMMODITY REALLOCATION TO C&I LLF	<u>(\$6,710)</u>
C&I LLF TOTAL ADJUSTED COMMODITY COSTS	\$6,054,521
C&I LLF PROJECTED PRORATED SALES (11/01/16 - 04/30/17)	14,203,338
COMMODITY COST OF GAS RATE	\$0.4263
INDIRECT COST OF GAS	\$0.0631
TOTAL C&I LLF COST OF GAS RATE	\$0.7696



CALCULATION OF FIRM SALES COST OF GAS RATE

Period Covered: May 1, 2017 - October 31, 2017

(Col 1)	(Col 2)	(Col 3)
Total Anticipated Direct Cost of Gas	\$2,900,087	
Projected Prorated Sales (05/01/17 - 10/31/17)	8,005,603	
Direct Cost of Gas Rate		\$0.3623 per therm
Demand Cost of Gas Rate	\$838,422	\$0.1047 per therm
Commodity Cost of Gas Rate	<u>\$2,061,665</u>	<u>\$0.2575</u> per therm
Total Direct Cost of Gas Rate	\$2,900,087	\$0.3622 per therm
Total Anticipated Indirect Cost of Gas	\$346,308	
Projected Prorated Sales (05/01/17 - 10/31/17)	8,005,603	
Indirect Cost of Gas		\$0.0433 per therm
TOTAL PERIOD AVERAGE COST OF GAS		\$0.4055 per therm

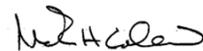
RESIDENTIAL COST OF GAS RATE -05/01/17	COGwr	\$0.4055 per therm
	Maximum (COG+25%)	\$0.5069

COM/IND LOW WINTER USE COST OF GAS RATE - 05/01/17	COGwl	\$0.3589 per therm
	Maximum (COG+25%)	\$0.4486

C&I HLF DEMAND COSTS ALLOCATED PER SMBA	\$108,191
PLUS: RESIDENTIAL DEMAND RELOCATION TO C&I HLF	<u>\$16,122</u>
C&I HLF TOTAL ADJUSTED DEMAND COSTS	\$124,313
C&I HLF PROJECTED PRORATED SALES (05/01/17 - 10/31/17)	2,140,549
DEMAND COST OF GAS RATE	\$0.0581
C&I HLF COMMODITY COSTS ALLOCATED PER SMBA	\$551,251
PLUS: RESIDENTIAL COMMODITY REALLOCATION TO C&I HLF	<u>\$44</u>
C&I HLF TOTAL ADJUSTED COMMODITY COSTS	\$551,295
C&I HLF PROJECTED PRORATED SALES (05/01/17 - 10/31/17)	2,140,549
COMMODITY COST OF GAS RATE	\$0.2575
INDIRECT COST OF GAS	\$0.0433
TOTAL C&I HLF COST OF GAS RATE	\$0.3589

COM/IND HIGH WINTER USE COST OF GAS RATE - 05/01/17	COGwh	\$0.4465 per therm
	Maximum (COG+25%)	\$0.5581

C&I LLF COMMODITY COSTS ALLOCATED PER SMBA	\$309,243
PLUS RESIDENTIAL DEMAND REALLOCATION TO C&I LLF	<u>\$46,083</u>
C&I LLF TOTAL ADJUSTED DEMAND COSTS	\$355,326
C&I LLF PROJECTED PRORATED SALES (05/01/17 - 10/31/17)	2,438,282
DEMAND COST OF GAS RATE	\$0.1457
C&I LLF COMMODITY COSTS ALLOCATED PER SMBA	\$627,925
PLUS: RESIDENTIAL COMMODITY REALLOCATION TO C&I LLF	<u>\$51</u>
C&I LLF TOTAL ADJUSTED COMMODITY COSTS	\$627,976
C&I LLF PROJECTED PRORATED SALES (05/01/17 - 10/31/17)	2,438,282
COMMODITY COST OF GAS RATE	\$0.2575
INDIRECT COST OF GAS	\$0.0433
TOTAL C&I LLF COST OF GAS RATE	\$0.4465



V. LOCAL DELIVERY ADJUSTMENT CLAUSE

Section

1. Purpose
2. Applicability
3. Energy Efficiency ("EE") Program Costs Allowable for Local Delivery Adjustment Clause ("LDAC") –Energy Efficiency ("EE")
- 3.A. Lost Revenue Allowable for LDAC -- ("LR")
4. Environmental Response Costs Allowable for LDAC -- ("ERC")
5. Interruptible Transportation Margin Credit Allowable for LDAC -- ("ITMC")
6. Residential Low Income Assistance and Regulatory Assessment ("RLIARA") Costs Allowable for LDAC
7. Expenses Related to Rate Case ("RCE")
8. Reconciliation of Permanent Changes in Delivery Rates ("RPC")
9. Effective Date of Local Delivery Adjustment Clause
10. Local Delivery Adjustment Clause (LDAC) Formula
11. Application of LDAC to Bills
12. Other Rules
13. Amendments to Uniform System of Accounts

1. Purpose

The purpose of this clause is to establish procedures that allow Northern Utilities ("Northern" or the "Company") subject to the jurisdiction of the State of New Hampshire Public Utilities Commission ("PUC" or "NHPUC"), to adjust, on an annual basis, its rates for firm gas sales and firm delivery service in order to recover Energy Efficiency program costs, recover lost revenue related to the Energy Efficiency programs, recover environmental response costs, return interruptible transportation margin credits, recover revenue shortfall associated with customer participation in the Residential Low Income Assistance Program, recover the non-distribution portion of the annual NHPUC regulatory assessment, recover rate case expenses and recover and return the reconciliation of revenues related to permanent changes in delivery rates.

2. Applicability

This Local Delivery Adjustment Clause ("LDAC") shall be applicable in whole or part to all of Northern's firm sales and firm delivery service customers as shown on the table below. The application of the clause may, for good cause shown, be modified by the NHPUC. See Part V, Section 12, "Other Rules."

V. LOCAL DELIVERY ADJUSTMENT CLAUSE

Applicability	EE V.3.	LR V3A	ERC V.4.	ITM V.5.	RLIARA V.7.	RCE V.9.	RPC V.10.
Residential Non-Heating	X	X	X	X	X	X	X
Residential Heating	X	X	X	X	X	X	X
Small C&I	X	X	X	X	X	X	X
Medium C&I	X	X	X	X	X	X	X
Large C&I	X	X	X	X	X	X	X
No Previous Sales Service	X	X	X	X	X	X	X

Notes:

- 1 N/A - Not applicable
- 2 X - Applicable to all
- 3 Specific EEC and LR Rates for Residential Heating and Non-Heating
- 4 Specific EEC and LR Rates for All C&I classes

3. Energy Efficiency Program Costs Allowable for LDAC

3.1 Purpose

The purpose of this provision is to establish a procedure that allows Northern, subject to the jurisdiction of the NHPUC, to adjust on an annual basis, the Energy Efficiency Charge applicable to firm gas sales and firm delivery service throughput in order to recover from firm ratepayers Energy Efficiency program costs and performance incentives.

3.2 Applicability

An Energy Efficiency Charge ("EEC") shall be applied to firm sales and firm delivery service throughput of the Company as determined in accordance with the provisions of Part V, Section 3 of this clause. Such EEC shall be determined annually by the Company, separately for each Rate Category defined below, subject to review and approval by the NHPUC as provided for in this clause.

V. LOCAL DELIVERY ADJUSTMENT CLAUSE

For purposes of applying the respective EEC each "Rate Category" shall be as follows:

Residential	Rates R-5, R-6, R-10, R-11
Commercial/Industrial (including multi-family)	Rates G-40, G-50, T-40, T-50 G-41, G-42, G-51, G-52 T-41, T-42, T-51, T-52

Special contract customers are exempt from the EEC.

3.3 Reporting

The Company shall submit monthly and annual reports by Rate Category to the Commission reconciling any difference between the actual Energy Efficiency costs and actual revenues collected under this rate schedule. The difference, whether positive or negative, will be carried forward, with interest, into the EEC for the next recovery period. Annual reports shall be filed with the Commission at least 45 days prior to the effective date of the next subsequent twelve-month period.

3.4 Effective Date of EEC

Forty-five ("45") days prior to November 1 of each year, the Company will file with the NHPUC for its consideration and approval, the Company's request for a change in the EEC applicable to each Rate Category during the next subsequent twelve-month period commencing with the calendar month of November.

3.5 Calculation of the EEC

The EEC for each Rate Category will be derived by dividing the projected annual EE costs, including performance incentives, plus the reconciliation balance, by forecast firm annual throughput. The reconciliation balance shall reflect both actual and projected data, as necessary, through October of the prior rate period.

3.6 Reconciliation Adjustments

Account 175.5 shall contain the accumulated difference between EEC revenues collected and actual Energy Efficiency program costs and performance incentives, plus carrying charges calculated on the average monthly balance and then added or credited to the end-of-month balance. Interest shall be calculated based on the prime rate, with said prime rate to be fixed on a quarterly basis and to be established as reported in the Wall Street Journal on the first business day of the

V. LOCAL DELIVERY ADJUSTMENT CLAUSE

month preceding the calendar quarter; if more than one rate is reported the average of the reported rates shall be used.

3.7 Application of EEC Rate to Bills

The EEC Rate (\$ per therm) shall be calculated to the nearest one one-hundredth of a cent per therm and will be applied to the monthly firm sales volumes and transportation throughput.

3.8 Information to be Filed with the NHPUC

An annual EEC filing will be required forty-five (45) days prior to the effective date of November 1, containing the calculation of the new annual EEC to become effective November 1. The calculation will reflect the forecast of EEC annual costs, the updated annual EEC reconciliation balance and throughput forecast for the upcoming period. Monthly and annual reconciliation reports will be filed in accordance with Section 3.3 above.

3.A. Lost Revenue Allowable for LDAC

3.A.1 Purpose

The purpose of this provision is to establish a procedure that allows Northern, subject to the jurisdiction of the NHPUC, to adjust on an annual basis, the Lost Revenue Rate applicable to firm gas sales and firm delivery service throughput in order to recover from firm ratepayers lost revenue related to Energy Efficiency programs, pursuant to Order No. 25,932 in Docket DE 15-137, Energy Efficiency Resource Standard.

3.A.2 Applicability

Effective January 1, 2017, a Lost Revenue Rate ("LRR") shall be applied to firm sales and firm delivery service throughput of the Company as determined in accordance with the provisions of Part V, Section 3.A of this clause. Such LRR shall be determined annually by the Company, separately for each Rate Category defined below, subject to review and approval by the NHPUC as provided for in this clause.

For purposes of applying the respective LRR each "Rate Category" shall be as follows:

Residential

Rates R-5, R-6, R-10, R-11

Issued: November 1, 2016
Effective: November 1, 2016
Authorized by NHPUC Order No. 25,959 in Docket No. DG 16-819, dated October 26, 2016

Issued By: 
Title: Senior Vice President

V. LOCAL DELIVERY ADJUSTMENT CLAUSE

Commercial/Industrial (including multi-family) Rates G-40, G-50, T-40, T-50
G-41, G-42, G-51, G-52
T-41, T-42, T-51, T-52

Special contract customers are exempt from the LRR.

3.A.3 Effective Date of the LRR

Forty-five ("45") days prior to November 1 of each year, the Company will file with the NHPUC for its consideration and approval, the Company's request for a change in the LRR applicable to each Rate Category during the next subsequent twelve-month period commencing with the calendar month of November.

3.A.4 Calculation of the LRR

The LRR for each Rate Category will be derived by dividing the projected annual lost revenue, plus the reconciliation balance and projected interest, by forecast firm annual throughput. The reconciliation balance shall reflect both actual and projected data, as necessary, through October of the prior rate period.

3.A.5 Reconciliation Adjustments

Account 175.10 shall contain the accumulated difference between LRR revenues collected and actual costs, plus carrying charges calculated on the average monthly balance and then added or credited to the end-of-month balance. Interest shall be calculated based on the prime rate, with said prime rate to be fixed on a quarterly basis and to be established as reported in the Wall Street Journal on the first business day of the month preceding the calendar quarter; if more than one rate is reported the average of the reported rates shall be used.

3.A.6 Application of LRR to Bills

The LRR (\$ per therm) shall be calculated to the nearest one one-hundredth of a cent per therm and will be applied to the monthly firm sales volumes and transportation throughput.

3.A.7 Information to be Filed with the NHPUC

An annual LRR filing will be required forty-five (45) days prior to the effective date of November 1, containing the calculation of the new annual LRR to become effective November 1. The calculation will reflect the forecast of LRR annual costs, the updated annual LRR reconciliation balance and throughput forecast for

V. LOCAL DELIVERY ADJUSTMENT CLAUSE

the upcoming period.

4. Environmental Response Costs Allowable for LDAC

4.1 Purpose

In order to recover Environmental Response Cost ("ERC") expenditures associated with former manufactured gas plants, there shall be an ERC Rate applied to all firm gas sales and firm delivery service throughput billed under the Company's sales and delivery service rate schedules.

4.2 Applicability

An annual ERC Rate shall be calculated effective every November 1 for the annual period of November 1 through October 31. The annual ERC Rate shall be filed with the Company's Annual Cost of Gas ("COG") filing and be subject to review and approval by the Commission. The annual ERC Rate will be applied to firm sales and to firm Delivery Service throughput as a separate surcharge. Special contract customers are exempt from the ERC.

4.3 Environmental Response Cost Allowable

All approved environmental response costs associated with manufactured gas plants shall be included in the ERC Rate.

The total annual charge to the Company's ratepayers for environmental response costs during any annual ERC recovery period shall not exceed five percent (5%) of the Company's total revenues from firm gas sales and Delivery Service throughput during the preceding twelve (12) month period ending June 30. The total annual charge shall represent the ERC expenditures to be in effect for the upcoming twelve month period, November 1 through October 31. If this recovery limitation results in the Company recovering less than the amount that would otherwise be recovered in a particular ERC Recovery Year, then the Company would defer this unrecovered amount, with interest, calculated monthly on the average monthly balance, until the next recovery period in which this amount could be recovered without violating the 5% limitation. The interest rate is to be adjusted each quarter using the prime interest rate as reported by the Wall Street Journal on the first date of the month preceding the first month of the quarter.

4.4 Effective Date

Forty-five ("45") days prior to November 1 of each year, the Company will file with the NHPUC for its consideration and approval, the Company's request for a

V. LOCAL DELIVERY ADJUSTMENT CLAUSE

change in the ERC applicable to all firm sales and firm delivery service throughput for the subsequent twelve month period commencing with the calendar month of November.

4.5 Definitions

Environmental Response Costs shall include all costs of investigation, testing, remediation, litigation expenses, and other liabilities relating to manufactured gas plant sites, disposal sites, or other sites onto which material may have migrated, as a result of the operating or decommissioning of New Hampshire gas manufacturing facilities. ERCs shall also include the expenses incurred by the Company in pursuing insurance and third-party claims and any recoveries or other benefits received by the company as a result of such claims.

4.6 Reconciliation Adjustments

Prior to the Annual COG filing, the Company will calculate the difference between (a) the revenues derived by multiplying firm sales and Delivery Service throughput by the ERC Rate through October 31, and (b) the historical amortized costs approved for recoveries in the prior November's Annual ERC Recovery Period. This cumulative difference will be recorded in Account 175.6. The Company shall file the reconciliation along with its COG filing forty-five (45) days prior to the beginning of the annual period.

4.7 Calculation of the ERC

The ERC Rate calculated annually consists of one-seventh of actual response costs incurred by the Company in the twelve month period ending June 30 of each year until fully amortized (over seven years). Any insurance and third-party recoveries or other benefits for the twelve month period ending June 30 shall be applied to reduce the unamortized balance, shortening the amortization period. The sum of these amounts is then divided by the Company's forecast of total firm sales and Delivery Service throughput for the upcoming twelve months of November 1 through October 31.

4.8 Application of ERC to Bills

The annual ERC Rate shall be calculated to the nearest one one-hundredth of a cent per therm and will be applied to the monthly firm gas sales by being included in the determination of the semiannual COG, and also will be applied to the

V. LOCAL DELIVERY ADJUSTMENT CLAUSE

monthly firm Delivery throughput of each firm Delivery customer's bill.

5. Interruptible Transportation Margins Allowable for LDAC

5.1 Purpose

The purpose of this provision is to establish a procedure that allows Northern subject to the jurisdiction of the NHPUC to adjust the Interruptible Transportation Margin Credit ("ITMC") applicable to firm gas sales and firm delivery service throughput in order to return the Interruptible Transportation margins allocated to the local distribution firm ratepayers.

5.2 Applicability

An Interruptible Transportation Margin Credit ("ITMC") shall be applied to all firm sales and firm delivery service throughput of the Company subject to the jurisdiction of the NHPUC as determined in accordance with the provisions of Part V, Section 5 of this clause. Such ITMC shall be determined annually by the Company as defined below, subject to review and approval by the NHPUC as provided for in this clause. The ITMC is not applied to the bills of special contract customers.

The application of this provision may, for good cause shown, be modified by the NHPUC. See Part V, Section 12, "Other Rules."

5.3 Effective Date of Interruptible Transportation Margin

The ITMC shall become effective on November 1 as designated by the Company.

5.4 Interruptible Transportation Margins

The ITMC shall be computed annually based on a forecast of Interruptible Transportation margins and firm sales and firm delivery service throughput volumes.

5.5 Annual ITM Credit Formula

The annual ITM Credit shall be calculated according to the following formulas:

$$\text{ITMC} = \frac{\text{ITM}}{\text{A:TPvol}} + \text{RF}_{\text{ITM}}$$

and:

Issued: November 1, 2016
Effective: November 1, 2016
Authorized by NHPUC Order No. 25,959 in Docket No. DG 16-819, dated October 26, 2016

Issued By: 
Title: Senior Vice President

V. LOCAL DELIVERY ADJUSTMENT CLAUSE

$$RF_{ITM} = \frac{R_{ITM}}{A:TP_{vol}}$$

Where:

A : TP _{vol}	Forecast annual firm sales and firm delivery service throughput.
ITMC	Annual Interruptible Transportation Margin Credit.
ITM	Interruptible Transportation margins
RF _{ITM}	Annual Interruptible Transportation margin reconciliation adjustment
R _{ITM}	factor applicable to total firm sales and firm delivery service throughput. Reconciliation costs - interruptible Transportation margins, Account 175.3 balance, inclusive of the associated Account 175.3 interest.

5.6 Reconciliation Adjustments

Account 175.3 shall contain the accumulated difference between annual, interruptible Transportation margins returned toward the local distribution function, as calculated by multiplying the interruptible Transportation margin credit (ITMC) times monthly firm sales and firm delivery service throughput during the year, and the actual margins for the year.

See Part V, Section 5.5 for Reconciliation formulas.

5.7 Application of ITMC to Bills

The ITMC (\$ per therm) shall be calculated to the nearest one one-hundredth of a cent per therm by period and will be applied to the monthly firm sales and firm delivery service throughput.

5.8 Information to be Filed with the NHPUC

Information pertaining to the Interruptible Transportation Margins will be filed with the NHPUC along with the gas cost information as required pursuant to the LDAC and COGC. Required filings include an annual report providing actual data and resulting updated projection of the end-of-period reconciliation balance, as well as an annual calculation of the ITM credit, which shall be included in an annual LDAC filing. Also, the annual ITM reconciliation balances shall be filed along with the other reconciliation balances included in the LDAC.

V. LOCAL DELIVERY ADJUSTMENT CLAUSE

6. Residential Low Income Assistance and Regulatory Assessment (“RLIARA”) Costs Allowable for LDAC

6.1 Purpose:

The purpose of this provision is to allow Northern Utilities, subject to the jurisdiction of the NHPUC, to recover the revenue shortfall (costs) associated with customers participating in the Residential Low Income Assistance Program, as well as the associated administrative costs, pursuant to DG 05-076. This rate shall also recover the change in the Company’s annual NHPUC regulatory assessment. Such costs shall be recovered by applying the RLIARA Rate to all firm gas sales and firm delivery service throughput billed under the Company’s sales and delivery service rate schedules.

6.2 Applicability:

The RLIARA Rate shall be applied to all firm sales and transportation tariff customers with the exception of special contract customers who are exempt from the LDAC. The RLIARA Rate shall be determined annually by the Company as defined below, subject to review and approval by the NHPUC as provided in this clause.

6.3 Residential Low Income Assistance and Regulatory Assessment Costs (“RLIARAC”) Allowable for LDAC

The amount of Residential Low Income Assistance costs is comprised of the revenue shortfall plus the associated administrative costs. Such revenue shortfall shall be derived by applying the actual billing determinants of the customers enrolled under the Residential Low Income Assistance Program to the difference in the monthly customer charge and volumetric rates of the Residential Heating Rate, R-5, versus the Low Income Residential Heating Rate, R-10. The revenue shortfall and administrative costs shall be the amount approved by the NHPUC. Effective July 1, 2014, the amount of the NH PUC regulatory assessment to be charged, or credited, through this clause shall be calculated by taking the total assessment minus the amount in base rates of \$91,075 established in DG 13-086.

6.4 Effective Date of Residential Low Income Assistance and Regulatory Assessment Rate

Issued: November 1, 2016
Effective: November 1, 2016
Authorized by NHPUC Order No. 25,959 in Docket No. DG 16-819, dated October 26, 2016

Issued By: 
Title: Senior Vice President

V. LOCAL DELIVERY ADJUSTMENT CLAUSE

Forty five (45) days prior to November 1 of each year, the Company will file with the NHPUC for its consideration and approval, the Company's request for a change in the RLIARA Rate applicable to all consumption of tariff customers eligible to receive delivery service for the subsequent twelve month period commencing with billings for gas consumed on and after November 1.

6.5 Definitions:

Residential Low Income Assistance Costs are the difference in revenues determined by comparing the delivery service revenues generated from customers participating in the Residential Low Income Assistance Program with revenues from those same customers under the regular Residential Heating R-5 rate schedule. Also, these costs include the associated administrative costs, which include associated Information Technology and start-up costs. The Company shall calculate the shortfall or reduced delivery service revenues by applying the monthly gas use of all customers of record under the Low Income Residential Heating Service R-10 rate schedule to the difference in the delivery service rates of the Low Income Residential Heating Service R-10 Rate and Residential Heating R-5 Rate.

6.6 Residential Low Income Assistance and Regulatory Assessment ("RLIARA") Rate Formula:

$$\text{RLIARA Rate} = \frac{\text{RLIARAC} + \text{RA}_{\text{RLIARA}}}{\text{A:TPvol}}$$

and:

$$\text{RLIARAC} = (\text{Cust} \times \text{DCust}\$) + (\text{Cust} \times \text{Avgthm} \times \text{Dbr}) + \text{AdminC} + \text{Assessment}$$

Where:

AdminC	Costs associated with administering the Residential Low Income Assistance Program, including IT and start-up costs.
Assessment	The amount of the annual NHPUC regulatory assessment which is above or below the amount of \$91,075 in base rates established in Docket 13-086.
Avgthm	Estimated average therm use per customer for period determined from most recent historical therm use under the Company's Residential Low Income Assistance Program, or Residential Heating, rate schedules.
Cust	Estimated number of customers participating in the Residential Low Income Assistance Program.
Dbr	Difference between the Residential Heating R-5 and Low

V. LOCAL DELIVERY ADJUSTMENT CLAUSE

Income Residential Heating Service R-10 base rate charges.	
DCust\$	Difference between the Residential Heating R-5 and Low Income Residential Heating Service R-10 monthly customer charge.
RLIARAC	Costs, comprised of the revenue shortfall associated with customer participation in the Residential Low Income Assistance Program, plus associated administrative costs, as defined in section 6.5, and the non-distribution portion of the annual NHPUC regulatory assessment.
RA _{RLIARAPC}	Reconciliation Adjustment associated with Residential Low Income Assistance and Regulatory Assessment Costs and revenues - Account 175.9 balance, inclusive of the associated Account 175.9 interest, as outlined in Section 6.7
A:TPvol	Forecast annual firm sales and firm delivery service throughput.

6.7 Reconciliation Adjustments

Account 175.9 shall contain the accumulated difference between revenues toward Residential Low Income Assistance and Regulatory Assessment costs as calculated by multiplying the (RLIARA) Rate times monthly firm throughput volumes and actual RLIARAC, comprised of the revenue shortfall and administrative costs, allowed as defined in Section 6.5, plus the non-distribution portion of the annual NHPUC regulatory assessment, plus carrying charges calculated on the average monthly balance using the .Federal Reserve Statistical Release prime lending rate and then added to the end-of-month balance.

6.8 Application of RLIARA Rate to Bills

The RLIARA Rate (\$ per therm) shall be calculated to the nearest one one-hundredth of a cent per therm and will be applied to the monthly firm sales volumes and transportation throughput.

6.9 Information to be Filed with the NHPUC

Information pertaining to the Residential Low Income Assistance and Regulatory Assessment (RLIARA) costs and revenue shall be filed with the NHPUC consistent with the filing requirements of all costs and revenue information included in the LDAC. An annual RLIARA filing will be required forty-five (45) days prior to the effective date of November 1, containing the calculation of the new annual RLIARA Rate to become effective November 1. The calculation will reflect the forecast of RLIARA annual costs, the updated annual RLIARA reconciliation balance and throughput forecast for the upcoming annual period.

7. Expenses Related to Rate Cases Allowable for LDAC

Issued: November 1, 2016
Effective: November 1, 2016
Authorized by NHPUC Order No. 25,959 in Docket No. DG 16-819, dated October 26, 2016

Issued By: 
Title: Senior Vice President

V. LOCAL DELIVERY ADJUSTMENT CLAUSE

7.1 Purpose

The purpose of this provision is to establish a procedure that allows Northern Utilities to adjust its rates for the recovery of NHPUC-approved rate case expenses.

7.2 Applicability

The Rate Case Expenses (“RCE”) shall be applied to all firm tariffed customers with the exception of special contract customers. The RCE will be determined by the Company, as defined below.

7.3 Rate Case Expenses Allowable for LDAC

The total amount of the RCE will be equal to the amount approved by the Commission.

7.4 Rate Case Expenses Allowable for LDAC

The effective date of the RCE will be determined by the NHPUC in an individual rate proceeding.

7.5 Definition

The **RCE** includes all rate case-related expenses approved by the NHPUC. This includes legal expenses, costs for bill inserts, costs for legal notices, consulting fees, processing expenses, and other approved expenses.

7.6 Rate Case Expense (RCE) Factor Formulas

The RCE will be calculated according to the Commission Order issued in an individual proceeding to establish details including the number of years over which the RCE shall be amortized and the allocation of recovery among rate classes. In general, the RCE Factor will be derived by dividing the annual portion of the total RCE, plus the RCE Reconciliation Adjustment, by forecast firm annual throughput.

7.7 Reconciliation Adjustments

Account 175.7 shall contain the accumulated difference between revenues toward

V. LOCAL DELIVERY ADJUSTMENT CLAUSE

Rate Case Expenses as calculated by multiplying the Rate Case Expense Factor (RCEF) times the appropriate monthly volumes and Rate Case Expense allowed.

At the end of the recovery period, any under or over recovery will be included in an active LDAC component, as approved by the Commission.

7.8 Application of RCE to Bills

The RCE (\$ per therm) shall be calculated to the nearest one one-hundredth of a cent per therm and will be applied to the monthly firm sales and firm delivery service throughput of tariffed customers.

7.9 Information to be Filed with the NHPUC

Information pertaining to the RCE will be filed with the NHPUC consistent with the filing requirements of all cost and revenue information included in the LDAC. The RCE filing will contain the calculation of the new RCE and will include the updated RCE reconciliation balance.

8. Reconciliation of Permanent Changes in Delivery Rates

8.1 Purpose

The purpose of this provision is to establish a procedure that allows Northern Utilities to adjust its rates for the reconciliation of revenues related to a permanent change in the Company's delivery service rates implemented subsequent to the effective date of such change. This provision includes the reconciliation for the difference in revenues charged under temporary versus permanent rates.

8.2 Applicability

The factor to reconcile the revenues resulting from a permanent rate change ("RPC") shall be applied to all firm tariffed customers. The Company will determine the RPC, as defined in this section.

8.3 Amount of RPC Allowable for LDAC

The amount of the RPC will be equal to the amount approved by the Commission.

V. LOCAL DELIVERY ADJUSTMENT CLAUSE

8.4 Effective Date of RPC Charge

The effective date of the RPC Charge will be determined by the NHPUC on a case by case basis.

8.5 Definition

The RPC is a surcharge mechanism, which allows Northern Utilities to adjust its rates for the reconciliation of revenues generated under delivery service rates that have been permanently changed.

8.6 Formulas to Reconcile Revenues Resulting From a Permanent Rate Change

The RPC will be calculated according to the Commission Order issued in an individual proceeding.

8.7 Reconciliation Adjustment Account

Account 175.8 shall contain the accumulated difference between revenues toward reconciliation expenses as calculated by multiplying the reconciliation of the permanent changes in delivery rate charge (RPC) times the appropriate monthly volumes and reconciliation amount allowed.

8.8 Application of RPC Charge to Bills

The RPC charge (\$ per therm) shall be calculated to the nearest one one-hundredth of a cent per therm and will be applied to the monthly firm sales and firm delivery service throughput of tariffed customers.

8.9 Information to be Filed with the NHPUC

Information pertaining to the RPC will be filed with the NHPUC consistent with the filing requirements of all cost and revenue information included in the LDAC. The RPC filing will contain the calculation of the new RPC charge and will include the updated RPC reconciliation balance.

V. LOCAL DELIVERY ADJUSTMENT CLAUSE

9. Effective Date of Local Delivery Adjustment Clause

The LDAC shall be filed annually and become effective on November 1 of each year pursuant to NHPUC approval. In order to minimize the magnitude of future reconciliation adjustments, the Company may request interim revisions to the LDAC rates, subject to review and approval of the NHPUC.

10. Local Delivery Adjustment Clause Formulas

The LDAC shall be calculated on an annual basis, by summing up the various factors included in the LDAC, where applicable.

LDAC Formula

$$\text{LDAC}^x = \text{EEC}^x + \text{LBR}^x + \text{ERC} - \text{ITMC} + \text{RLIARA} + \text{RCEF}^x + \text{RPC}^x$$

Where:

EEC ^x	Annualized class specific Energy Efficiency Charge
LR ^x	Annualized class specific Lost Revenue Rate
LDAC ^x	Annualized class specific Local Delivery Adjustment Clause
ITMC	Annualized Interruptible Transportation Margin Credit
ERC	Total firm annualized Environmental Response Charge
RCEF ^x	Annualized class specific Rate Case Expense Factor
RLIARA	Annualized Residential Low Income Assistance and Regulatory Assessment Rate
RPC ^x	Reconciliation of Permanent Changes in Delivery Rates

11. Application of LDAC to Bills

The component costs comprising the LDAC (\$ per therm) shall be calculated to the nearest one one-hundredth of a cent per therm and will be applied to the monthly firm sales and firm delivery service throughput in accordance with the table shown in Part V, Section 2.

12. Other Rules

- (1) The NHPUC may, where appropriate, on petition or on its own motion, grant an exception from the provisions of these regulations, upon such terms that it may

Issued: November 1, 2016
Effective: November 1, 2016
Authorized by NHPUC Order No. 25,959 in Docket No. DG 16-819, dated October 26, 2016

Issued By: 
Title: Senior Vice President

V. LOCAL DELIVERY ADJUSTMENT CLAUSE

determine to be in the public interest.

- (2) Such amendments may include the addition or deletion of component cost categories, subject to the review and approval of the NHPUC.
- (3) The Company may implement an amended LDAC with the NHPUC approval at any time.
- (4) The NHPUC may, at any time, require the Company to file an amended LDAC.
- (5) The operation of the LDAC is subject to all powers of suspension and investigation vested in the NHPUC.

13. Amendments to Uniform System of Accounts

175.3 Interruptible Transportation Margin Reconciliation Adjustment for LDAC

This account shall be used to record the cumulative difference between annual Interruptible Transportation margin returns and annual Interruptible Transportation margins. Entries to this account shall be determined as outlined in the Local Delivery Adjustment Clause, Part V, Section 5.

175.5 Energy Efficiency Reconciliation Adjustment

This account shall be used to record the cumulative difference between the sum of Energy Efficiency program costs and performance incentives and the revenues collected from customers pursuant to this clause with respect to a given Rate Category. Entries to this account shall be determined as outlined in the Local Delivery Adjustment Clause, Part V, Section 3.

175.6 Environmental Response Costs Reconciliation Adjustment

This account shall be used to record the cumulative difference between the revenues toward environmental response costs as calculated by multiplying the ERC times monthly firm sales volumes and delivery service throughput and environmental response costs allowable per formula. Entries to this account shall be determined as outlined in the Local Delivery Adjustment Clause, Part V, Section 4.

175.7 Rate Case Expense Reconciliation Adjustment

This account shall be used to record the cumulative difference between the recovery and actual amounts of third party incremental expenses associated with

V. LOCAL DELIVERY ADJUSTMENT CLAUSE

the Company's Rate Case initiatives. Entries to this account shall be determined as outlined in the Local Delivery Adjustment Clause, Part V, Section 7.

175.8 Reconciliation of Permanent Changes in Delivery Rates

This account shall be used to record the cumulative differences between the recovery or refund and actual amount of the reconciliation of permanent changes in delivery rates. Entries to this account shall be determined as outlined in the Local Delivery Adjustment Clause, Part V, Section 8.

175.9 Residential Low Income Assistance and Regulatory Assessment Reconciliation Adjustment

This account shall be used to record the cumulative difference between the recovery and actual Residential Low Income Assistance and Regulatory Assessment Costs. Entries to this account shall be determined as outlined in the Local Delivery Adjustment Clause, Part V, Section 6.

175.10 Lost Revenue Reconciliation Adjustment

This account shall be used to record the cumulative difference between the lost revenue of the Company and the revenue collected from customers pursuant to this clause with respect to a given Rate Category. Entries to this account shall be determined as outlined in the Local Delivery Adjustment Clause, Part V, Section 3.A.

Local Delivery Adjustment Clause

Rate Schedule	RLIARA	EEC	LRR	ERC	ITM	RCE	RPC	LDAC
Residential Heating	\$0.0096	\$0.0331	\$0.0000	\$0.0056	\$0.0000	\$0.0000	\$0.0000	\$0.0483
Residential Non-Heating	\$0.0096	\$0.0331	\$0.0000	\$0.0056	\$0.0000	\$0.0000	\$0.0000	\$0.0483
Small C&I	\$0.0096	\$0.0142	\$0.0000	\$0.0056	\$0.0000	\$0.0000	\$0.0000	\$0.0294
Medium C&I	\$0.0096	\$0.0142	\$0.0000	\$0.0056	\$0.0000	\$0.0000	\$0.0000	\$0.0294
Large C&I	\$0.0096	\$0.0142	\$0.0000	\$0.0056	\$0.0000	\$0.0000	\$0.0000	\$0.0294
No Previous Sales Service								

Issued: November 1, 2016

Effective: With Service Rendered On and After November 1, 2016

Authorized by NHPUC Order No. 25,959 in Docket No. DG 16-819, dated October 26, 2016

Issued by:



Title:

Senior Vice President

Local Delivery Adjustment Clause

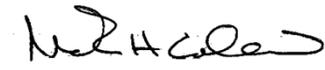
Rate Schedule	RLIARA	EEC	LRR	ERC	ITM	RCE	RPC	LDAC
Residential Heating	\$0.0096	\$0.0331	\$0.0006	\$0.0056	\$0.0000	\$0.0000	\$0.0000	\$0.0489
Residential Non-Heating	\$0.0096	\$0.0331	\$0.0006	\$0.0056	\$0.0000	\$0.0000	\$0.0000	\$0.0489
Small C&I	\$0.0096	\$0.0142	\$0.0002	\$0.0056	\$0.0000	\$0.0000	\$0.0000	\$0.0296
Medium C&I	\$0.0096	\$0.0142	\$0.0002	\$0.0056	\$0.0000	\$0.0000	\$0.0000	\$0.0296
Large C&I	\$0.0096	\$0.0142	\$0.0002	\$0.0056	\$0.0000	\$0.0000	\$0.0000	\$0.0296
No Previous Sales Service								

Issued: November 1, 2016

Effective: With Service Rendered On and After January 1, 2017

Authorized by NHPUC Order No. 25,959 in Docket No. 16-819, dated October 26, 2016

Issued by:



Title:

Senior Vice President

**NORTHERN UTILITIES - NEW HAMPSHIRE DIVISION
 WINTER SEASON RESIDENTIAL RATES**

Winter Season November 2016 - April 2017		Tariff Rates	Total Delivery Rates (Includes LDAC)	Total Billed Rates Tariff Rates, LDAC Plus Cost of Gas
Residential Heating	<u>Tariff Rate R 5:</u>			
	Monthly Customer Charge	\$21.36	\$21.36	\$21.36
	First 50 therms	\$0.6239	\$0.6722	\$1.4280
	All usage over 50 therms	\$0.5103	\$0.5586	\$1.3144
	LDAC	\$0.0483		
	<u>Gas Cost Adjustment:</u>			
	Cost of Gas	\$0.7558		
Residential Heating Low Income	<u>Tariff Rate R 10:</u>			
	Monthly Customer Charge	\$8.54	\$8.54	\$8.54
	First 50 therms	\$0.2496	\$0.2979	\$1.0537
	All usage over 50 therms	\$0.2041	\$0.2524	\$1.0082
	LDAC	\$0.0483		
	<u>Gas Cost Adjustment:</u>			
	Cost of Gas	\$0.7558		
Residential Non-Heating	<u>Tariff Rate R 6:</u>			
	Monthly Customer Charge	\$21.36	\$21.36	\$21.36
	First 10 therms	\$0.4214	\$0.4697	\$1.2255
	All usage over 10 therms	\$0.4214	\$0.4697	\$1.2255
	LDAC	\$0.0483		
	<u>Gas Cost Adjustment:</u>			
	Cost of Gas	\$0.7558		
Residential Non-Heating Low Income	<u>Tariff Rate R 11:</u>			
	Monthly Customer Charge	\$15.52	\$15.52	\$15.52
	First 10 therms	\$0.3196	\$0.3679	\$1.1237
	All usage over 10 therms	\$0.3196	\$0.3679	\$1.1237
	LDAC	\$0.0483		
	<u>Gas Cost Adjustment:</u>			
	Cost of Gas	\$0.7558		

Issued: November 1, 2016

Effective: With Service Rendered On and After November 1, 2016

Authorized by NHPUC Order No. 25,959 in Docket No. DG 16-819, dated October 26, 2016

Issued by:

Title:

Senior Vice President



**NORTHERN UTILITIES - NEW HAMPSHIRE DIVISION
 WINTER SEASON RESIDENTIAL RATES**

Winter Season November 2016 - April 2017		Tariff Rates	Total Delivery Rates (Includes LDAC)	Total Billed Rates Tariff Rates, LDAC Plus Cost of Gas
Residential Heating	<u>Tariff Rate R 5:</u>			
	Monthly Customer Charge	\$21.36	\$21.36	\$21.36
	First 50 therms	\$0.6239	\$0.6728	\$1.4286
	All usage over 50 therms	\$0.5103	\$0.5592	\$1.3150
	LDAC	\$0.0489		
	<u>Gas Cost Adjustment:</u> Cost of Gas	\$0.7558		
Residential Heating Low Income	<u>Tariff Rate R 10:</u>			
	Monthly Customer Charge	\$8.54	\$8.54	\$8.54
	First 50 therms	\$0.2496	\$0.2985	\$1.0543
	All usage over 50 therms	\$0.2041	\$0.2530	\$1.0088
	LDAC	\$0.0489		
	<u>Gas Cost Adjustment:</u> Cost of Gas	\$0.7558		
Residential Non-Heating	<u>Tariff Rate R 6:</u>			
	Monthly Customer Charge	\$21.36	\$21.36	\$21.36
	First 10 therms	\$0.4214	\$0.4703	\$1.2261
	All usage over 10 therms	\$0.4214	\$0.4703	\$1.2261
	LDAC	\$0.0489		
	<u>Gas Cost Adjustment:</u> Cost of Gas	\$0.7558		
Residential Non-Heating Low Income	<u>Tariff Rate R 11:</u>			
	Monthly Customer Charge	\$15.52	\$15.52	\$15.52
	First 10 therms	\$0.3196	\$0.3685	\$1.1243
	All usage over 10 therms	\$0.3196	\$0.3685	\$1.1243
	LDAC	\$0.0489		
	<u>Gas Cost Adjustment:</u> Cost of Gas	\$0.7558		

Issued: November 1, 2016

Effective: With Service Rendered On and After January 1, 2017

Authorized by NHPUC Order No. 25, 959 in Docket No. DG 16-819, dated October 26, 2016

Issued by:

Title:

Senior Vice President



**NORTHERN UTILITIES - NEW HAMPSHIRE DIVISION
 SUMMER SEASON RESIDENTIAL RATES**

Summer Season May 2017 - October 2017		Tariff Rates	Total Delivery Rates (Includes LDAC)	Total Billed Rates Tariff Rates, LDAC Plus Cost of Gas
Residential Heating	<u>Tariff Rate R 5:</u>			
	Monthly Customer Charge	\$21.36	\$21.36	\$21.36
	First 50 therms	\$0.5449	\$0.5938	\$0.9993
	All usage over 50 therms	\$0.5449	\$0.5938	\$0.9993
	LDAC	\$0.0489		
	<u>Gas Cost Adjustment:</u> Cost of Gas	\$0.4055		
Residential Heating Low Income	<u>Tariff Rate R 10:</u>			
	Monthly Customer Charge	\$8.54	\$8.54	\$8.54
	First 50 therms	\$0.2179	\$0.2668	\$0.6723
	All usage over 50 therms	\$0.2179	\$0.2668	\$0.6723
	LDAC	\$0.0489		
	<u>Gas Cost Adjustment:</u> Cost of Gas	\$0.4055		
Residential Non-Heating	<u>Tariff Rate R 6:</u>			
	Monthly Customer Charge	\$21.36	\$21.36	\$21.36
	First 10 therms	\$0.4214	\$0.4703	\$0.8758
	All usage over 10 therms	\$0.4214	\$0.4703	\$0.8758
	LDAC	\$0.0489		
	<u>Gas Cost Adjustment:</u> Cost of Gas	\$0.4055		
Residential Non-Heating Low Income	<u>Tariff Rate R 11:</u>			
	Monthly Customer Charge	\$15.52	\$15.52	\$15.52
	First 10 therms	\$0.3196	\$0.3685	\$0.7740
	All usage over 10 therms	\$0.3196	\$0.3685	\$0.7740
	LDAC	\$0.0489		
	<u>Gas Cost Adjustment:</u> Cost of Gas	\$0.4055		

Issued: November 1, 2016

Effective: With Service Rendered On and After May 1, 2017

Authorized by NHPUC Order No. 25,959 in Docket No. DG 16-819, dated October 26, 2016

Issued by:

Title:

Senior Vice President



NORTHERN UTILITIES - NEW HAMPSHIRE DIVISION
WINTER SEASON C&I RATES

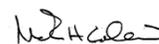
Winter Season November 2016 - April 2017	Tariff Rates	Total Delivery Rates (Includes LDAC)	Total Billed Rates Tariff Rates, LDAC Plus Cost of Gas
C&I Low Annual/High Winter <u>Tariff Rate G 40:</u> Monthly Customer Charge First 75 therms All usage over 75 therms LDAC <u>Gas Cost Adjustment:</u> Cost of Gas	\$67.45 \$0.1615 \$0.1615 \$0.0294 \$0.7696	\$67.45 \$0.1909 \$0.1909	\$67.45 \$0.9605 \$0.9605
C&I Low Annual/Low Winter <u>Tariff Rate G 50:</u> Monthly Customer Charge First 75 therms All usage over 75 therms LDAC <u>Gas Cost Adjustment:</u> Cost of Gas	\$67.45 \$0.1615 \$0.1615 \$0.0294 \$0.6801	\$67.45 \$0.1909 \$0.1909	\$67.45 \$0.8710 \$0.8710
C&I Medium Annual/High Winter <u>Tariff Rate G 41:</u> Monthly Customer Charge All usage LDAC <u>Gas Cost Adjustment:</u> Cost of Gas	\$196.73 \$0.2098 \$0.0294 \$0.7696	\$196.73 \$0.2392	\$196.73 \$1.0088
C&I Medium Annual/Low Winter <u>Tariff Rate G 51:</u> Monthly Customer Charge First 1,300 therms All usage over 1,300 therms LDAC <u>Gas Cost Adjustment:</u> Cost of Gas	\$196.73 \$0.1520 \$0.1238 \$0.0294 \$0.6801	\$196.73 \$0.1814 \$0.1532	\$196.73 \$0.8615 \$0.8333
C&I High Annual/High Winter <u>Tariff Rate G 42:</u> Monthly Customer Charge All usage LDAC <u>Gas Cost Adjustment:</u> Cost of Gas	\$1,124.19 \$0.1764 \$0.0294 \$0.7696	\$1,124.19 \$0.2058	\$1,124.19 \$0.9754
C&I High Annual/Low Winter <u>Tariff Rate G 52:</u> Monthly Customer Charge All usage LDAC <u>Gas Cost Adjustment:</u> Cost of Gas	\$1,124.19 \$0.1541 \$0.0294 \$0.6801	\$1,124.19 \$0.1835	\$1,124.19 \$0.8636

Issued: November 1, 2016

Effective: With Service Rendered On and After November 1, 2016

Authorized by NHPUC Order No. 25,959 in Docket No. DG 16-819 dated October 26, 2016

Issued by:



Title: Senior Vice President

NORTHERN UTILITIES - NEW HAMPSHIRE DIVISION
WINTER SEASON C&I RATES

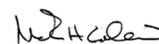
Winter Season November 2016 - April 2017	Tariff Rates	Total Delivery Rates (Includes LDAC)	Total Billed Rates Tariff Rates, LDAC Plus Cost of Gas
C&I Low Annual/High Winter <u>Tariff Rate G 40:</u> Monthly Customer Charge First 75 therms All usage over 75 therms LDAC <u>Gas Cost Adjustment:</u> Cost of Gas	\$67.45 \$0.1615 \$0.1615 \$0.0296 \$0.7696	\$67.45 \$0.1911 \$0.1911	\$67.45 \$0.9607 \$0.9607
C&I Low Annual/Low Winter <u>Tariff Rate G 50:</u> Monthly Customer Charge First 75 therms All usage over 75 therms LDAC <u>Gas Cost Adjustment:</u> Cost of Gas	\$67.45 \$0.1615 \$0.1615 \$0.0296 \$0.6801	\$67.45 \$0.1911 \$0.1911	\$67.45 \$0.8712 \$0.8712
C&I Medium Annual/High Winter <u>Tariff Rate G 41:</u> Monthly Customer Charge All usage LDAC <u>Gas Cost Adjustment:</u> Cost of Gas	\$196.73 \$0.2098 \$0.0296 \$0.7696	\$196.73 \$0.2394	\$196.73 \$1.0090
C&I Medium Annual/Low Winter <u>Tariff Rate G 51:</u> Monthly Customer Charge First 1,300 therms All usage over 1,300 therms LDAC <u>Gas Cost Adjustment:</u> Cost of Gas	\$196.73 \$0.1520 \$0.1238 \$0.0296 \$0.6801	\$196.73 \$0.1816 \$0.1534	\$196.73 \$0.8617 \$0.8335
C&I High Annual/High Winter <u>Tariff Rate G 42:</u> Monthly Customer Charge All usage LDAC <u>Gas Cost Adjustment:</u> Cost of Gas	\$1,124.19 \$0.1764 \$0.0296 \$0.7696	\$1,124.19 \$0.2060	\$1,124.19 \$0.9756
C&I High Annual/Low Winter <u>Tariff Rate G 52:</u> Monthly Customer Charge All usage LDAC <u>Gas Cost Adjustment:</u> Cost of Gas	\$1,124.19 \$0.1541 \$0.0296 \$0.6801	\$1,124.19 \$0.1837	\$1,124.19 \$0.8638

Issued: November 1, 2016

Effective: With Service Rendered On and After January 1, 2017

Authorized by NHPUC Order No. 25,959 in Docket No. DG 16-819, dated October 26, 2016

Issued by:



Title: Senior Vice President

NORTHERN UTILITIES - NEW HAMPSHIRE DIVISION
SUMMER SEASON C&I RATES

Summer Season May 2017 - October 2017		Tariff Rates	Total Delivery Rates (Includes LDAC)	Total Billed Rates Tariff Rates, LDAC Plus Cost of Gas
C&I Low Annual/High Winter	<u>Tariff Rate G 40:</u> Monthly Customer Charge First 75 therms All usage over 75 therms LDAC <u>Gas Cost Adjustment:</u> Cost of Gas	\$67.45 \$0.1615 \$0.1615 \$0.0296 \$0.4465	\$67.45 \$0.1911 \$0.1911 	\$67.45 \$0.6376 \$0.6376
C&I Low Annual/Low Winter	<u>Tariff Rate G 50:</u> Monthly Customer Charge First 75 therms All usage over 75 therms LDAC <u>Gas Cost Adjustment:</u> Cost of Gas	\$67.45 \$0.1615 \$0.1615 \$0.0296 \$0.3589	\$67.45 \$0.1911 \$0.1911 	\$67.45 \$0.5500 \$0.5500
C&I Medium Annual/High Winter	<u>Tariff Rate G 41:</u> Monthly Customer Charge All usage LDAC <u>Gas Cost Adjustment:</u> Cost of Gas	\$196.73 \$0.1622 \$0.0296 \$0.4465	\$196.73 \$0.1918 	\$196.73 \$0.6383
C&I Medium Annual/Low Winter	<u>Tariff Rate G 51:</u> Monthly Customer Charge First 1,000 therms All usage over 1,000 therms LDAC <u>Gas Cost Adjustment:</u> Cost of Gas	\$196.73 \$0.1183 \$0.0958 \$0.0296 \$0.3589	\$196.73 \$0.1479 \$0.1254 	\$196.73 \$0.5068 \$0.4843
C&I High Annual/High Winter	<u>Tariff Rate G 42:</u> Monthly Customer Charge All usage LDAC <u>Gas Cost Adjustment:</u> Cost of Gas	\$1,124.19 \$0.1066 \$0.0296 \$0.4465	\$1,124.19 \$0.1362 	\$1,124.19 \$0.5827
C&I High Annual/Low Winter	<u>Tariff Rate G 52:</u> Monthly Customer Charge All usage LDAC <u>Gas Cost Adjustment:</u> Cost of Gas	\$1,124.19 \$0.0707 \$0.0296 \$0.3589	\$1,124.19 \$0.1003 	\$1,124.19 \$0.4592

Issued: November 1, 2016

Effective: With Service Rendered On and After May 1, 2017

Authorized by NHPUC Order No. 25,959 in Docket No. DG 16-819, dated October 26, 2016

Issued by: 
 Title: Senior Vice President

NORTHERN UTILITIES - NEW HAMPSHIRE DIVISION
WINTER SEASON C&I RATES

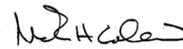
Winter Season November 2016 - April 2017		Tariff Rates	Total Delivery Rates (Includes LDAC)
C&I Low Annual/High Winter	Tariff Rate T 40: Monthly Customer Charge First 75 therms All usage over 75 therms LDAC	\$67.45 \$0.1615 \$0.1615 \$0.0294	\$67.45 \$0.1909 \$0.1909
C&I Low Annual/Low Winter	Tariff Rate T 50: Monthly Customer Charge First 75 therms All usage over 75 therms LDAC	\$67.45 \$0.1615 \$0.1615 \$0.0294	\$67.45 \$0.1909 \$0.1909
C&I Medium Annual/High Winter	Tariff Rate T 41: Monthly Customer Charge All usage LDAC	\$196.73 \$0.2098 \$0.0294	\$196.73 \$0.2392
C&I Medium Annual/Low Winter	Tariff Rate T 51: Monthly Customer Charge First 1,300 therms All usage over 1,300 therms LDAC	\$196.73 \$0.1520 \$0.1238 \$0.0294	\$196.73 \$0.1814 \$0.1532
C&I High Annual/High Winter	Tariff Rate T 42: Monthly Customer Charge All usage LDAC	\$1,124.19 \$0.1764 \$0.0294	\$1,124.19 \$0.2058
C&I High Annual/Low Winter	Tariff Rate T 52: Monthly Customer Charge All usage LDAC	\$1,124.19 \$0.1541 \$0.0294	\$1,124.19 \$0.1835
C&I Interruptible Transportation	Tariff Rate IT: Monthly Customer Charge First 20,000 therms All usage over 20,000 therms	\$170.21 \$0.1299 \$0.1108	\$170.21 \$0.1299 \$0.1108

Issued: November 1, 2016

Effective: With Service Rendered On and After November 1, 2016

Authorized by NHPUC Order No. 25,959 in Docket No. DG 16-819, dated October 26, 2016

Issued by:



Title: Senior Vice President

NORTHERN UTILITIES - NEW HAMPSHIRE DIVISION
WINTER SEASON C&I RATES

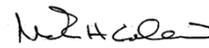
Winter Season November 2016 - April 2017		Tariff Rates	Total Delivery Rates (Includes LDAC)
C&I Low Annual/High Winter	<u>Tariff Rate T 40:</u> Monthly Customer Charge First 75 therms All usage over 75 therms LDAC	\$67.45 \$0.1615 \$0.1615 \$0.0296	\$67.45 \$0.1911 \$0.1911
C&I Low Annual/Low Winter	<u>Tariff Rate T 50:</u> Monthly Customer Charge First 75 therms All usage over 75 therms LDAC	\$67.45 \$0.1615 \$0.1615 \$0.0296	\$67.45 \$0.1911 \$0.1911
C&I Medium Annual/High Winter	<u>Tariff Rate T 41:</u> Monthly Customer Charge All usage LDAC	\$196.73 \$0.2098 \$0.0296	\$196.73 \$0.2394
C&I Medium Annual/Low Winter	<u>Tariff Rate T 51:</u> Monthly Customer Charge First 1,300 therms All usage over 1,300 therms LDAC	\$196.73 \$0.1520 \$0.1238 \$0.0296	\$196.73 \$0.1816 \$0.1534
C&I High Annual/High Winter	<u>Tariff Rate T 42:</u> Monthly Customer Charge All usage LDAC	\$1,124.19 \$0.1764 \$0.0296	\$1,124.19 \$0.2060
C&I High Annual/Low Winter	<u>Tariff Rate T 52:</u> Monthly Customer Charge All usage LDAC	\$1,124.19 \$0.1541 \$0.0296	\$1,124.19 \$0.1837
C&I Interruptible Transportation	<u>Tariff Rate IT:</u> Monthly Customer Charge First 20,000 therms All usage over 20,000 therms	\$170.21 \$0.1299 \$0.1108	\$170.21 \$0.1299 \$0.1108

Issued: November 1, 2016

Effective: With Service Rendered On and After January 1, 2017

Authorized by NHPUC Order No. 25,959 in Docket No. DG 16-819, dated October 26, 2016

Issued by:



Title: Senior Vice President

**NORTHERN UTILITIES - NEW HAMPSHIRE DIVISION
 SUMMER SEASON C&I RATES**

Summer Season May 2017 - October 2017		Tariff Rates	Total Delivery Rates (Includes LDAC)
C&I Low Annual/High Winter	<u>Tariff Rate T 40:</u>		
	Monthly Customer Charge	\$67.45	\$67.45
	First 75 therms	\$0.1615	\$0.1911
	All usage over 75 therms	\$0.1615	\$0.1911
	LDAC	\$0.0296	
C&I Low Annual/Low Winter	<u>Tariff Rate T 50:</u>		
	Monthly Customer Charge	\$67.45	\$67.45
	First 75 therms	\$0.1615	\$0.1911
	All usage over 75 therms	\$0.1615	\$0.1911
	LDAC	\$0.0296	
C&I Medium Annual/High Winter	<u>Tariff Rate T 41:</u>		
	Monthly Customer Charge	\$196.73	\$196.73
	All usage	\$0.1622	\$0.1918
	LDAC	\$0.0296	
C&I Medium Annual/Low Winter	<u>Tariff Rate T 51:</u>		
	Monthly Customer Charge	\$196.73	\$196.73
	First 1,000 therms	\$0.1183	\$0.1479
	All usage over 1,000 therms	\$0.0958	\$0.1254
	LDAC	\$0.0296	
C&I High Annual/High Winter	<u>Tariff Rate T 42:</u>		
	Monthly Customer Charge	\$1,124.19	\$1,124.19
	All usage	\$0.1066	\$0.1362
	LDAC	\$0.0296	
C&I High Annual/Low Winter	<u>Tariff Rate T 52:</u>		
	Monthly Customer Charge	\$1,124.19	\$1,124.19
	All usage	\$0.0707	\$0.1003
	LDAC	\$0.0296	
C&I Interruptible Transportation	<u>Tariff Rate IT:</u>		
	Monthly Customer Charge	\$170.21	\$170.21
	First 20,000 therms	\$0.0407	\$0.0407
	All usage over 20,000 therms	\$0.0347	\$0.0347

Issued: November 1, 2016

Effective: With Service Rendered On and After May 1, 2017

Authorized by NHPUC Order No. 25,959 in Docket No. DG 16-819, dated October 26, 2016

Issued by:



Title: Senior Vice President

VII. DELIVERY SERVICE TERMS AND CONDITIONS

APPENDIX A

Schedule of Administrative Fees and Charges

I. Supplier Balancing Charge: \$0.77 per MMBtu of Daily Imbalance Volumes

- Updated effective every November 1 to reflect the Company’s latest balancing resources and associated capacity costs.
- Daily Imbalance Volumes represent the difference between ATV and ATV adjusted for actual EDDs.

II. Peaking Service Demand Charge: \$ 20.82 per MMBtu per MDPQ per month for November 2016 through April 2017.

- Updated effective every November 1 to reflect the Company’s Peaking resources and associated costs.

III. Company Allowance Calculation: 1.22% - Provided in Attachment 3 to Schedule 10

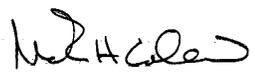
IV. Supplier Services and Associated Fees:

<u>SERVICE</u>	<u>PRICING</u>
Pool Administration (required) Non-Daily Metered Pools only	• \$0.10/month/customer billed @ marketer level
Standard Passthrough Billing (required)	• \$0.60/customer/month billed @ marketer level
Standard Complete Billing (optional – Passthrough Billing fee not required if this service is elected)	• \$1.50/customer/month billed @ marketer level
Customer Administration (required)	• \$10/customer/switch billed @ marketer level

Issued: November 1, 2016

Effective: November 1, 2016

Authorized by NHPUC Order No. 25,959 in Docket No. DG 16-819, dated October 26, 2016

Issued by: 
Senior Vice President

VII. DELIVERY SERVICE TERMS AND CONDITIONS

APPENDIX C

Capacity Allocators

Capacity Allocators shall be calculated and filed with the Commission each year with the Winter Cost of Gas filing. The following Capacity Allocators shall be applicable for capacity assignments during the period of November 1, 2016 through October 31, 2017.

Commercial and Industrial

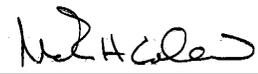
	<u>High Winter Use</u>	<u>Low Winter Use</u>
Pipeline:	28.53%	57.40%
Storage:	31.01%	18.48%
Peaking:	40.46%	24.12%

Issued: November 1, 2016

Effective: November 1, 2016

Authorized by NHPUC Order No. 25,959 in Docket No. DG16-819, dated October 26, 2016

Issued by:



Senior Vice President

VII. DELIVERY SERVICE TERMS AND CONDITIONS

APPENDIX D

**Firm Sales Service Re-Entry Fee Bill Adjustment
(continued)**

The Re-Entry Fee shall be calculated and filed with the Commission each year with the Winter Cost of Gas filing. The following Firm Sales Service Re-Entry Fee Unit Charge shall be applicable for the period of November 1, 2016 through October 31, 2017.

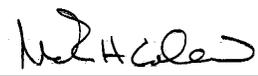
Effective Dates:	November 1, 2016 – October 31, 2017
Annual Average Unit Cost:	\$ 240.33
25% - Annual Charge for Re-Entry Fee:	\$ 60.08
Monthly Unit Charge for Re-Entry Fee:	\$ 5.11

Issued: November 1, 2016

Effective: November 1, 2016

Authorized by NHPUC Order No. 25,959 in Docket No. DG 16-819, dated October 26, 2016

Issued by:



Senior Vice President