

CALCULATION OF FIRM SALES COST OF GAS RATE

Period Covered: November 1, 2018 - April 30, 2019

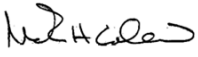
(Col 1)	(Col 2)	(Col 3)
Total Anticipated Direct Cost of Gas	\$27,122,704	
Projected Prorated Sales (11/01/18 - 04/30/19)	34,882,919	
Direct Cost of Gas Rate		\$0.7775 per therm
Demand Cost of Gas Rate	\$11,747,382	\$0.3368 per therm
Commodity Cost of Gas Rate	<u>\$15,382,305</u>	<u>\$0.4410</u> per therm
Total Direct Cost of Gas Rate	<u>\$27,128,686</u>	\$0.7778 per therm
Total Anticipated Indirect Cost of Gas	\$1,719,515	
Projected Prorated Sales (11/01/18 - 04/30/19)	34,882,919	
Indirect Cost of Gas		\$0.0493 per therm
TOTAL PERIOD AVERAGE COST OF GAS		\$0.8271 per therm
Period ending under-collection to be recovered as determined on 11/20/2018	\$2,089,524	
Projected Sales (12/01/18 - 04/30/2019)	30,651,027	
Per unit change in Cost of Gas (12/01/18 - 04/30/18)	\$0.0682	

RESIDENTIAL COST OF GAS RATE -12/01/18	COGwr	\$0.8953	per therm
	Maximum (COG+25%)	\$1.0339	
RESIDENTIAL COST OF GAS RATES - 11/01/2018		\$0.8271	
CHANGE IN PER UNIT COST		\$0.0682	
RESIDENTIAL COST OF GAS RATES - 12/01/2018		\$0.8953	

COM/IND LOW WINTER USE COST OF GAS RATE - 12/01/18	COGwl	\$0.7936	per therm
	Maximum (COG+25%)	\$0.9068	
COM/IND LOW WINTER USE COST OF GAS RATES - 11/01/2018		\$0.7254	
CHANGE IN PER UNIT COST		\$0.0682	
COM/IND LOW WINTER USE COST OF GAS RATES - 12/01/2018		\$0.7936	

COM/IND HIGH WINTER USE COST OF GAS RATE - 12/01/18	COGwh	\$0.9106	per therm
	Maximum (COG+25%)	\$1.0530	
COM/IND HIGH WINTER USE COST OF GAS RATES - 11/01/2018		\$0.8424	
CHANGE IN PER UNIT COST		\$0.0682	
COM/IND HIGH WINTER USE COST OF GAS RATES - 12/01/2018		\$0.9106	

Issued: November 20, 2018
 Effective Date: December 1, 2018
 Authorized by NHPUC Order No. 26,186 in Docket No. DG 18-143, dated October 31, 2018.

Issued By: 
 Senior Vice President

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

Winter Season November 2018 - April 2019		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 First 50 therms All usage over 50 therms LDAC <u>Gas Cost Adjustment:</u> Cost of Gas	\$21.36 \$0.6660 \$0.6660 \$0.0691 \$0.8953	\$21.36 \$0.7351 \$0.7351	\$21.36 \$1.6304 \$1.6304
Residential Heating Low Income	<u>Tariff Rate R 10:</u> Monthly Customer Charge First 50 therms All usage over 50 therms LDAC <u>Gas Cost Adjustment:</u> Cost of Gas	\$8.54 \$0.2664 \$0.2664 \$0.0691 \$0.8953	\$8.54 \$0.3355 \$0.3355	\$8.54 \$1.2308 \$1.2308
Residential Non-Heating	<u>Tariff Rate R 6:</u> Monthly Customer Charge First 10 therms All usage over 10 therms LDAC <u>Gas Cost Adjustment:</u> Cost of Gas	\$21.36 \$0.6227 \$0.6227 \$0.0691 \$0.8953	\$21.36 \$0.6918 \$0.6918	\$21.36 \$1.5871 \$1.5871

Issued: November 20, 2018

Effective: With Service Rendered On and After December 1, 2018

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

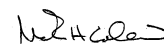
Winter Season November 2018 - April 2019	Tariff Rates	Total Delivery Rates (Includes LDAC)	Total Billed Rates Tariff Rates, LDAC Plus Cost of Gas
C&I Low Annual/High Winter <u>Tariff Rate G 40:</u> Monthly Customer Charge First 75 therms All usage over 75 therms LDAC <u>Gas Cost Adjustment:</u> Cost of Gas	\$72.26 \$0.1795 \$0.1795 \$0.0396 \$0.9106	\$72.26 \$0.2191 \$0.2191	\$72.26 \$1.1297 \$1.1297
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	\$72.26 \$0.1795 \$0.1795 \$0.0396 \$0.7936	\$72.26 \$0.2191 \$0.2191	\$72.26 \$1.0127 \$1.0127
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	\$214.26 \$0.2334 \$0.0396 \$0.9106	\$214.26 \$0.2730	\$214.26 \$1.1836
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	\$214.26 \$0.1648 \$0.1346 \$0.0396 \$0.7936	\$214.26 \$0.2044 \$0.1742	\$214.26 \$0.9980 \$0.9678
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	\$1,285.55 \$0.1909 \$0.0396 \$0.9106	\$1,285.55 \$0.2305	\$1,285.55 \$1.1411
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	\$1,285.55 \$0.1655 \$0.0396 \$0.7936	\$1,285.55 \$0.2051	\$1,285.55 \$0.9987

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<u>Projected Sales (12/01/18 - 04/30/2019)</u>	<u>30,651,027</u>	
<u>Per unit change in Cost of Gas (12/01/18 - 04/30/18)</u>	<u>\$0.0682</u>	

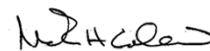
RESIDENTIAL COST OF GAS RATE - 11/01/18-12/01/18	COGwr	\$0.8274	\$0.8953	per therm
	Maximum (COG+25%)		\$1.0339	
<u>RESIDENTIAL COST OF GAS RATES - 11/01/2018</u>			<u>\$0.8271</u>	
<u>CHANGE IN PER UNIT COST</u>			<u>\$0.0682</u>	
<u>RESIDENTIAL COST OF GAS RATES - 12/01/2018</u>			<u>\$0.8953</u>	

COM/IND LOW WINTER USE COST OF GAS RATE - 11/01/18-12/01/18	COGwl	\$0.7254	\$0.7936	per therm
	Maximum (COG+25%)		\$0.9068	
<u>COM/IND LOW WINTER USE COST OF GAS RATES - 11/01/2018</u>			<u>\$0.7254</u>	
<u>CHANGE IN PER UNIT COST</u>			<u>\$0.0682</u>	
<u>COM/IND LOW WINTER USE COST OF GAS RATES - 12/01/2018</u>			<u>\$0.7936</u>	

C&I HLF DEMAND COSTS ALLOCATED PER SMBA	\$660,916
PLUS: RESIDENTIAL DEMAND REALLOCATION TO C&I HLF	(\$16,297)
C&I HLF TOTAL ADJUSTED DEMAND COSTS	<u>\$644,620</u>
C&I HLF PROJECTED PRORATED SALES (11/01/18 - 04/30/19)	2,480,220
DEMAND COST OF GAS RATE	\$0.2599
C&I HLF COMMODITY COSTS ALLOCATED PER SMBA	\$1,031,082
PLUS: RESIDENTIAL COMMODITY REALLOCATION TO C&I HLF	\$1,238
C&I HLF TOTAL ADJUSTED COMMODITY COSTS	<u>\$1,032,320</u>
C&I HLF PROJECTED PRORATED SALES (11/01/18 - 04/30/19)	2,480,220
COMMODITY COST OF GAS RATE	\$0.4162
INDIRECT COST OF GAS	\$0.0493
TOTAL C&I HLF COST OF GAS RATE	\$0.7254

COM/IND HIGH WINTER USE COST OF GAS RATE - 11/01/18-12/01/18	COGwh	\$0.8424	\$0.9106	per therm
	Maximum (COG+25%)		\$1.0530	
<u>COM/IND HIGH WINTER USE COST OF GAS RATES - 11/01/2018</u>			<u>\$0.8424</u>	
<u>CHANGE IN PER UNIT COST</u>			<u>\$0.0682</u>	
<u>COM/IND HIGH WINTER USE COST OF GAS RATES - 12/01/2018</u>			<u>\$0.9106</u>	

C&I LLF COMMODITY COSTS ALLOCATED PER SMBA	\$6,787,436
PLUS: RESIDENTIAL DEMAND REALLOCATION TO C&I LLF	(\$142,706)
C&I LLF TOTAL ADJUSTED DEMAND COSTS	<u>\$6,644,730</u>
C&I LLF PROJECTED PRORATED SALES (11/01/18 - 04/30/19)	16,211,416
DEMAND COST OF GAS RATE	\$0.3482
C&I LLF COMMODITY COSTS ALLOCATED PER SMBA	\$7,203,090
PLUS: RESIDENTIAL COMMODITY REALLOCATION TO C&I LLF	\$8,649
C&I LLF TOTAL ADJUSTED COMMODITY COSTS	<u>\$7,211,739</u>
C&I LLF PROJECTED PRORATED SALES (11/01/18 - 04/30/19)	16,211,416
COMMODITY COST OF GAS RATE	\$0.4449
INDIRECT COST OF GAS	\$0.0493
TOTAL C&I LLF COST OF GAS RATE	\$0.8424



NORTHERN UTILITIES - NEW HAMPSHIRE DIVISION
 WINTER SEASON RESIDENTIAL RATES

Winter Season November 2018 - April 2019	Tariff Rates	Total Delivery Rates (Includes LDAC)	Total Billed Rates Tariff Rates, LDAC Plus Cost of Gas
Residential Heating Tariff Rate R 5: Monthly Customer Charge First 50 therms All usage over 50 therms LDAC Gas Cost Adjustment: Cost of Gas	\$21.36 \$0.6660 \$0.6660 \$0.0691 \$0.8274 \$0.8953	 \$21.36 \$0.7351 \$0.7351	 \$21.36 \$1.5622 \$1.6304 \$1.5622 \$1.6304
Residential Heating Low income Tariff Rate R 10: Monthly Customer Charge First 50 therms All usage over 50 therms LDAC Gas Cost Adjustment: Cost of Gas	\$8.54 \$0.2664 \$0.2664 \$0.0691 \$0.8274 \$0.8953	 \$8.54 \$0.3355 \$0.3355	 \$8.54 \$1.1626 \$1.2308 \$1.1626 \$1.2308
Residential Non-Heating Tariff Rate R 6: Monthly Customer Charge First 10 therms All usage over 10 therms LDAC Gas Cost Adjustment: Cost of Gas	\$21.36 \$0.6227 \$0.6227 \$0.0691 \$0.8274 \$0.8953	 \$21.36 \$0.6918 \$0.6918	 \$21.36 \$1.5189 \$1.5871 \$1.5189 \$1.5871

Issued: ~~November 5~~ November 20, 2018

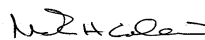
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C&I Low Annual/Low Winter	Tariff Rate G 50: Monthly Customer Charge First 75 therms All usage over 75 therms LDAC Gas Cost Adjustment: Cost of Gas	\$72.26 \$0.1795 \$0.1795 \$0.0396 \$0.7254 \$0.7936	\$72.26 \$0.2191 \$0.2191	\$72.26 \$0.9445 \$1.0127 \$0.9445 \$1.0127
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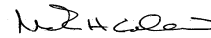
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