

**CALCULATION OF FIRM SALES COST OF GAS RATE**

Period Covered: November 1, 2019 - April 30, 2020

(Col 1)	(Col 2)	(Col 3)
Total Anticipated Direct Cost of Gas	\$21,453,831	
Projected Prorated Sales (11/01/19 - 04/30/20)	36,062,011	
<b>Direct Cost of Gas Rate</b>		\$0.5949 per therm
<b>Demand Cost of Gas Rate</b>	\$7,344,405	\$0.2037 per therm
<b>Commodity Cost of Gas Rate</b>	<u>\$14,106,692</u>	<u>\$0.3912</u> per therm
<b>Total Direct Cost of Gas Rate</b>	<u>\$21,451,097</u>	<b>\$0.5949</b> per therm
Total Anticipated Indirect Cost of Gas	(\$315,822)	
Projected Prorated Sales (11/01/19 - 04/30/20)	36,062,011	
<b>Indirect Cost of Gas</b>		(\$0.0088) per therm
<b>TOTAL PERIOD AVERAGE COST OF GAS</b>		<b>\$0.5861 per therm</b>
Period ending under-collection to be recovered as determined on 11/25/2019		(\$739,666)
Projected Sales (12/01/19 - 04/30/2020)		31,485,060
Per unit change in Cost of Gas (12/01/19 - 04/30/20)		(\$0.0235)

<b>RESIDENTIAL COST OF GAS RATE -12/01/19</b>	<b>COGwr</b>	<b>\$0.5626</b>	<b>per therm</b>
	<b>Maximum (Initial COG+25%)</b>	<b>\$0.7326</b>	

COM/IND LOW WINTER USE COST OF GAS RATES - 11/01/2019	\$0.5861
CHANGE IN PER UNIT COST	(\$0.0235)
COM/IND LOW WINTER USE COST OF GAS RATES - 12/01/2019	\$0.5626

<b>COM/IND LOW WINTER USE COST OF GAS RATE - 12/01/19</b>	<b>COGwl</b>	<b>\$0.4715</b>	<b>per therm</b>
	<b>Maximum (Initial COG+25%)</b>	<b>\$0.6188</b>	

COM/IND LOW WINTER USE COST OF GAS RATES - 11/01/2019	\$0.4950
CHANGE IN PER UNIT COST	(\$0.0235)
COM/IND LOW WINTER USE COST OF GAS RATES - 12/01/2019	\$0.4715

<b>COM/IND HIGH WINTER USE COST OF GAS RATE - 12/01/19</b>	<b>COGwh</b>	<b>\$0.5847</b>	<b>per therm</b>
	<b>Maximum (Initial COG+25%)</b>	<b>\$0.7603</b>	

COM/IND HIGH WINTER USE COST OF GAS RATES - 11/01/2019	\$0.6082
CHANGE IN PER UNIT COST	(\$0.0235)
COM/IND HIGH WINTER USE COST OF GAS RATES - 12/01/2019	\$0.5847

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Issued By: Christine Vaughan  
 Senior Vice President

NORTHERN UTILITIES - NEW HAMPSHIRE DIVISION  
 WINTER SEASON RESIDENTIAL RATES

Winter Season November 2019 - April 2020		Tariff Rates	Total Delivery Rates (Includes LDAC)	Total Billed Rates Tariff Rates, LDAC Plus Cost of Gas
Residential Heating	<b><u>Tariff Rate R 5:</u></b> Monthly Customer Charge First 50 therms All usage over 50 therms <b>LDAC</b> <b><u>Gas Cost Adjustment:</u></b> Cost of Gas	\$22.20 \$0.6920 \$0.6920 <b>\$0.0706</b> <b>\$0.5626</b>	\$22.20 <b>\$0.7626</b> <b>\$0.7626</b>	\$22.20 <b>\$1.3252</b> <b>\$1.3252</b>
Residential Heating Low Income	<b><u>Tariff Rate R 10:</u></b> Monthly Customer Charge First 50 therms All usage over 50 therms <b>LDAC</b> <b><u>Gas Cost Adjustment:</u></b> Cost of Gas	\$8.88 \$0.2768 \$0.2768 <b>\$0.0706</b> <b>\$0.5626</b>	\$8.88 <b>\$0.3474</b> <b>\$0.3474</b>	\$8.88 <b>\$0.9100</b> <b>\$0.9100</b>
Residential Non-Heating	<b><u>Tariff Rate R 6:</u></b> Monthly Customer Charge First 10 therms All usage over 10 therms <b>LDAC</b> <b><u>Gas Cost Adjustment:</u></b> Cost of Gas	\$22.20 \$0.6470 \$0.6470 <b>\$0.0706</b> <b>\$0.5626</b>	\$22.20 <b>\$0.7176</b> <b>\$0.7176</b>	\$22.20 <b>\$1.2802</b> <b>\$1.2802</b>

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 Title: Senior Vice President

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

Winter Season November 2019 - April 2020	Tariff Rates	Total Delivery Rates (Includes LDAC)	Total Billed Rates Tariff Rates, LDAC Plus Cost of Gas
<b>Tariff Rate G 40:</b> Monthly Customer Charge First 75 therms All usage over 75 therms <b>LDAC</b> <b>Gas Cost Adjustment:</b> Cost of Gas	\$75.09 \$0.1865 \$0.1865 <b>\$0.0359</b>  <b>\$0.5847</b>	\$75.09 <b>\$0.2224</b> <b>\$0.2224</b>	\$75.09 <b>\$0.8071</b> <b>\$0.8071</b>
<b>Tariff Rate G 50:</b> Monthly Customer Charge First 75 therms All usage over 75 therms <b>LDAC</b> <b>Gas Cost Adjustment:</b> Cost of Gas	\$75.09 \$0.1865 \$0.1865 <b>\$0.0359</b>  <b>\$0.4715</b>	\$75.09 <b>\$0.2224</b> <b>\$0.2224</b>	\$75.09 <b>\$0.6939</b> <b>\$0.6939</b>
<b>Tariff Rate G 41:</b> Monthly Customer Charge All usage <b>LDAC</b> <b>Gas Cost Adjustment:</b> Cost of Gas	\$222.64 \$0.2425 <b>\$0.0359</b>  <b>\$0.5847</b>	\$222.64 <b>\$0.2784</b>	\$222.64 <b>\$0.8631</b>
<b>Tariff Rate G 51:</b> Monthly Customer Charge First 1,300 therms All usage over 1,300 therms <b>LDAC</b> <b>Gas Cost Adjustment:</b> Cost of Gas	\$222.64 \$0.1712 \$0.1399 <b>\$0.0359</b>  <b>\$0.4715</b>	\$222.64 <b>\$0.2071</b> <b>\$0.1758</b>	\$222.64 <b>\$0.6786</b> <b>\$0.6473</b>
<b>Tariff Rate G 42:</b> Monthly Customer Charge All usage <b>LDAC</b> <b>Gas Cost Adjustment:</b> Cost of Gas	\$1,335.81 \$0.1984 <b>\$0.0359</b>  <b>\$0.5847</b>	\$1,335.81 <b>\$0.2343</b>	\$1,335.81 <b>\$0.8190</b>
<b>Tariff Rate G 52:</b> Monthly Customer Charge All usage <b>LDAC</b> <b>Gas Cost Adjustment:</b> Cost of Gas	\$1,335.81 \$0.1720 <b>\$0.0359</b>  <b>\$0.4715</b>	\$1,335.81 <b>\$0.2079</b>	\$1,335.81 <b>\$0.6794</b>

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Christine Vaughan

Title:

Senior Vice President

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Total Anticipated Indirect Cost of Gas	(\$315,822)	
Projected Prorated Sales (11/01/19 - 04/30/20)	36,062,011	
<b>Indirect Cost of Gas</b>		(\$0.0088) per therm
<b>TOTAL PERIOD AVERAGE COST OF GAS</b>		<b>\$0.5861</b> per therm
<u>Period endig under-collection to be recovered as determined on 11/25/2019</u>		(\$739,666)
<u>Projected Sales (12/01/19 - 04/30/2020)</u>		31,485,060
<u>Per unit change in Cost of Gas (12/01/19 - 04/30/20)</u>		(\$0.0235)

RESIDENTIAL COST OF GAS RATE - 4/12/01/19	COGwr	\$0.5864	\$0.5626	per therm
	Maximum (Initial COG+25%)		\$0.7326	
RESIDENTIAL COST OF GAS RATES - 11/01/2018			\$0.5861	
CHANGE IN PER UNIT COST			(\$0.0235)	
RESIDENTIAL COST OF GAS RATES - 12/01/2018			\$0.5626	

COM/IND LOW WINTER USE COST OF GAS RATE - 4/12/01/19	COGwl	\$0.4950	\$0.4715	per therm
	Maximum (Initial COG+25%)		\$0.6188	
COM/IND LOW WINTER USE COST OF GAS RATES - 11/01/2018			\$0.4950	
CHANGE IN PER UNIT COST			(\$0.0235)	
COM/IND LOW WINTER USE COST OF GAS RATES - 12/01/2018			\$0.4715	

C&I HLF DEMAND COSTS ALLOCATED PER SMBA	\$505,175
PLUS: RESIDENTIAL DEMAND RELOCATION TO C&I HLF	\$30,878
C&I HLF TOTAL ADJUSTED DEMAND COSTS	\$536,053
C&I HLF PROJECTED PRORATED SALES (11/01/19 - 04/30/20)	3,762,682
<b>DEMAND COST OF GAS RATE</b>	<b>\$0.1425</b>
C&I HLF COMMODITY COSTS ALLOCATED PER SMBA	\$4,352,376
PLUS: RESIDENTIAL COMMODITY REALLOCATION TO C&I HLF	\$6,954
C&I HLF TOTAL ADJUSTED COMMODITY COSTS	\$4,359,330
C&I HLF PROJECTED PRORATED SALES (11/01/19 - 04/30/20)	3,762,682
<b>COMMODITY COST OF GAS RATE</b>	<b>\$0.3613</b>
<b>INDIRECT COST OF GAS</b>	<b>(\$0.0088)</b>
<b>TOTAL C&amp;I HLF COST OF GAS RATE</b>	<b>\$0.4950</b>

COM/IND HIGH WINTER USE COST OF GAS RATE - 4/12/01/19	COGwh	\$0.6082	\$0.5847	per therm
	Maximum (Initial COG+25%)		\$0.7603	
COM/IND HIGH WINTER USE COST OF GAS RATES - 11/01/2019			\$0.6082	
CHANGE IN PER UNIT COST			(\$0.0235)	
COM/IND HIGH WINTER USE COST OF GAS RATES - 12/01/2019			\$0.5847	

C&I LLF COMMODITY COSTS ALLOCATED PER SMBA	\$3,196,065
PLUS: RESIDENTIAL DEMAND REALLOCATION TO C&I LLF	\$195,354
C&I LLF TOTAL ADJUSTED DEMAND COSTS	\$3,391,419
C&I LLF PROJECTED PRORATED SALES (11/01/19 - 04/30/20)	15,521,733
<b>DEMAND COST OF GAS RATE</b>	<b>\$0.2185</b>
C&I LLF COMMODITY COSTS ALLOCATED PER SMBA	\$6,154,139
PLUS: RESIDENTIAL COMMODITY REALLOCATION TO C&I LLF	\$31,647
C&I LLF TOTAL ADJUSTED COMMODITY COSTS	\$6,185,786
C&I LLF PROJECTED PRORATED SALES (11/01/19 - 04/30/20)	15,521,733
<b>COMMODITY COST OF GAS RATE</b>	<b>\$0.3985</b>
<b>INDIRECT COST OF GAS</b>	<b>(\$0.0088)</b>
<b>TOTAL C&amp;I LLF COST OF GAS RATE</b>	<b>\$0.6082</b>

NORTHERN UTILITIES - NEW HAMPSHIRE DIVISION  
 WINTER SEASON RESIDENTIAL RATES

Winter Season November 2019 - April 2020		Tariff Rates	Total Delivery Rates (Includes LDAC)	Total Billed Rates Tariff Rates, LDAC Plus Cost of Gas
Residential Heating	<b>Tariff Rate R 5:</b> Monthly Customer Charge First 50 therms All usage over 50 therms <b>LDAC</b> <b>Gas Cost Adjustment:</b> Cost of Gas	\$22.20 \$0.6920 \$0.6920 \$0.0706 <del>\$0.5864</del> <u>\$0.5626</u>	\$22.20 \$0.7626 \$0.7626	\$22.20 <del>\$1.3487</del> <u>\$1.3252</u> <del>\$1.3487</del> <u>\$1.3252</u>
Residential Heating Low income	<b>Tariff Rate R 10:</b> Monthly Customer Charge First 50 therms All usage over 50 therms <b>LDAC</b> <b>Gas Cost Adjustment:</b> Cost of Gas	\$8.88 \$0.2768 \$0.2768 \$0.0706 <del>\$0.5864</del> <u>\$0.5626</u>	\$8.88 \$0.3474 \$0.3474	\$8.88 <del>\$0.9335</del> <u>\$0.9100</u> <del>\$0.9335</del> <u>\$0.9100</u>
Residential Non-Heating	<b>Tariff Rate R 6:</b> Monthly Customer Charge First 10 therms All usage over 10 therms <b>LDAC</b> <b>Gas Cost Adjustment:</b> Cost of Gas	\$22.20 \$0.6470 \$0.6470 \$0.0706 <del>\$0.5864</del> <u>\$0.5626</u>	\$22.20 \$0.7176 \$0.7176	\$22.20 <del>\$1.3037</del> <u>\$1.2802</u> <del>\$1.3037</del> <u>\$1.2802</u>

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 WINTER SEASON C&I RATES

Winter Season November 2019 - April 2020	Tariff Rates	Total Delivery Rates (Includes LDAC)	Total Billed Rates Tariff Rates, LDAC Plus Cost of Gas
<b>C&amp;I Low Annual/High Winter</b> <b>Tariff Rate G 40:</b> Monthly Customer Charge First 75 therms All usage over 75 therms <b>LDAC</b> <b>Gas Cost Adjustment:</b> Cost of Gas	\$75.09 \$0.1865 \$0.1865 \$0.0359  <del>\$0.6082</del> <u>\$0.5847</u>	\$75.09  \$0.2224 \$0.2224	\$75.09  <del>\$0.8306</del> <u>\$0.8071</u> <del>\$0.8306</del> <u>\$0.8071</u>
<b>C&amp;I Low Annual/Low Winter</b> <b>Tariff Rate G 50:</b> Monthly Customer Charge First 75 therms All usage over 75 therms <b>LDAC</b> <b>Gas Cost Adjustment:</b> Cost of Gas	\$75.09 \$0.1865 \$0.1865 \$0.0359  <del>\$0.4950</del> <u>\$0.4715</u>	\$75.09  \$0.2224 \$0.2224	\$75.09  <del>\$0.7174</del> <u>\$0.6939</u> <del>\$0.7174</del> <u>\$0.6939</u>
<b>C&amp;I Medium Annual/High Winter</b> <b>Tariff Rate G 41:</b> Monthly Customer Charge  All usage <b>LDAC</b> <b>Gas Cost Adjustment:</b> Cost of Gas	\$222.64  \$0.2425 \$0.0359  <del>\$0.6082</del> <u>\$0.5847</u>	\$222.64  \$0.2784	\$222.64  <del>\$0.8866</del> <u>\$0.8631</u>
<b>C&amp;I Medium Annual/Low Winter</b> <b>Tariff Rate G 51:</b> Monthly Customer Charge First 1,300 therms All usage over 1,300 therms <b>LDAC</b> <b>Gas Cost Adjustment:</b> Cost of Gas	\$222.64 \$0.1712 \$0.1399 \$0.0359  <del>\$0.4950</del> <u>\$0.4715</u>	\$222.64  \$0.2071 \$0.1758	\$222.64  <del>\$0.7021</del> <u>\$0.6786</u> <del>\$0.6708</del> <u>\$0.6473</u>
<b>C&amp;I High Annual/High Winter</b> <b>Tariff Rate G 42:</b> Monthly Customer Charge  All usage <b>LDAC</b> <b>Gas Cost Adjustment:</b> Cost of Gas	\$1,335.81  \$0.1984 \$0.0359  <del>\$0.6082</del> <u>\$0.5847</u>	\$1,335.81  \$0.2343	\$1,335.81  <del>\$0.8425</del> <u>\$0.8190</u>
<b>C&amp;I High Annual/Low Winter</b> <b>Tariff Rate G 52:</b> Monthly Customer Charge  All usage <b>LDAC</b> <b>Gas Cost Adjustment:</b> Cost of Gas	\$1,335.81  \$0.1720 \$0.0359  <del>\$0.4950</del> <u>\$0.4715</u>	\$1,335.81  \$0.2079	\$1,335.81  <del>\$0.7029</del> <u>\$0.6794</u>

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