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July 24, 2018

Via ERF and US Mail

MHPUC 26JUL 189412:07

Debra A. Howland Executive Director New Hampshire Public Utilities Commission 21 S. Fruit Street, Suite 10 Concord, NH 03301-2429

RE:

DG 17-135 Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities and DG 18-052 Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities - Keene Division
2018 Summer Period Cost of Gas – August 2018 Monthly COG Adjustment

Dear Ms. Howland:

On behalf of Liberty Utilities (EnergyNorth Natural Gas) Corp. and Liberty Utilities (EnergyNorth Natural Gas) Corp. - Keene Division and in accordance with New Hampshire Public Utilities Commission Order No. 26,066 (October 31, 2017) in Docket DG 17-135 and Order No. 26,126 (May 1, 2018) in Docket DG 18-052, I enclose for filing the current (August) calculations of the projected over or under collection of gas costs for the 2018 Summer season ending October 31, 2018.

The calculations reflect the NYMEX closing prices as of July 17, 2018. The resulting ENNG projected over collection, excluding Keene, of \$423,534 is approximately 6.65% of the total revised anticipated gas costs for the 2018 summer season. The resulting ENNG Keene projected under collection of approximately \$25,809 is approximately 10.67% of the total revised anticipated gas costs for the 2018 summer season.

Liberty elects to implement the ENNG COG increase (excluding Keene) of \$0.0538 per therm. Liberty also elects to implement the ENNG Keene COG decrease of \$0.2290 per therm for the July 1st billing cycle.

The current and revised cost of gas rates are summarized in the following table.

	ENNG Exclu	ding Keene Co	st of Gas Rate
	Current	Revised	<u>Change</u>
	<u>Rate</u>	<u>Rate</u>	
Residential	\$0.3127	\$0.3665	\$0.0538
Commercial/Industrial High Winter Use	\$0.3066	\$0.3604	\$0.0538
Commercial/Industrial Low Winter Use	\$0.3335	\$0.3873	\$0.0538
	ENNG	Keene Cost of	Gas Rate
	Current	Revised	<u>Change</u>
	<u>Rate</u>	<u>Rate</u>	
Residential & Commercial/Industrial	\$0.9752	\$0.7462	(\$0.2290)

Please note this report has been filed via the Commission's Electronic Report Filing system.

Thank you for your attention to this matter. Please do not hesitate to call if you have any questions.

Sincerely,

Catherine A. McNamara

Enclosures

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty UtilitiesCalculation of the Projected Over or Under Collection of the
2018 Summer COG
DG 17-135

August 1, 2018

Estimated Under/(Over) Collection as of 07/1/18			\$	240,397
Forecasted firm Residential therm sales 7/1/18 - 10/31/18		6,741,212		
Residential Cost of Gas Rate per therm	\$	(0.3127)		
Forecasted firm C&I High Winter Use therm sales 7/1/18 - 10/31/18		859,574		
C&I- High Winter Use Cost of Gas Rate per therm	\$	(0.3335)		
Forecasted firm C&I Low Winter therm sales 7/1/18 - 10/31/18		2,162,323		
C&I- Low Winter Use Cost of Gas Rate per therm	\$	(0.3066)		
Forecast recovered costs at current rate 07/1/18 - 10/31/18				(3,057,613)
Revised projected gas costs 07/1/18 - 10/31/18			\$	3,252,755
Estimated interest charged (credited) to customers 07/1/18-10/31/18				(12,004)
Projected under / (over) collection as of 10/31/18 (A)			\$	423,534
				<u>.</u>
Actual Gas Costs through 07/1/18	\$	3,140,776		
Revised projected gas costs 08/1/18 - 10/31/18	\$	3,240,750		
Estimated total adjusted gas costs 07/1/18 - 10/31/18 (B)			\$	6,369,522
Under/ (over) collection as percent of total gas costs (A/B)				6.65%
Projected under / (over) collections as of 10/31/18 (A)			\$	423,534
Projected under / (over) collections as of 10/31/16 (A)			Ф	423,534
Forecasted firm therm sales 08/01/18 - 10/31/18				7,872,130
			\$	0.0538
Change in rate used to reduce forecast under/(over) collection				
Change in rate used to reduce forecast under/(over) collection Current Cost of Gas Rate			\$	0.3127
			\$	0.3127 0.3665

ENERGYNORTH NATURAL GAS, INC.

Projected Over or Under Collection

Without Rate Adjustment	Beginning Under/(Over)	May-18 (Actual)	Jun-18 (Actual)	(Jul-18 (Estimate)	Aug-18 (Estimate)	Sep-18 (Estimate)	Oct-18 (Estimate)	Total Peak
Total Gas Costs		\$ 1,790,052	\$ 1,418,314	\$	884,049	\$ 805,888	\$ 792,246	\$ 1,524,905	\$ 7,215,453
Adjustments and Indirect Costs Refunds & Adjustments COG Bad Debt		\$ -	\$ -	\$	- -	\$ <u>-</u> -	\$ - -	\$ - -	\$ -
Inventory Financing Transportation Revenue Broker Revenue Off System and Capacity Release Fixed Price Option Admin.		- - -	-		(22,942) (57,798) (9,523)	(25,112) (260,455) (8,400)	(23,668) (87,418) (14,105)	(20,465) (56,671) (12,378)	(92,187) (462,343) (44,406)
Bad Debt Costs Working Capital Misc Overhead Production & Storage		(5,724) 1,132 - 405	(60,749) (206) - 405		(28,993) (1,812) 694 405	(25,219) (1,576) 608 405	(33,995) (2,125) 809 405	(62,951) (3,934) 1,474 405	(217,630) (8,521) 3,585 2,433
Total Indirect Costs		\$ (4,186)	\$ (60,549)	\$	(119,969)	\$ (319,749)	\$ (160,096)	\$ (154,520)	\$ (819,069)
Interest		(2,719)	(135)		(3,129)	(2,528)	(2,471)	(3,876)	\$ (14,858)
Total Gas Costs plus Indirect Costs	\$ (1,020,256)	1,783,146	1,357,630		760,951	483,611	629,680	1,366,508	\$ 5,361,270
Total Forecasted Sales Volumes Total Forecasted Collections		12,635,276 893,509	6,838,969 986,614		1,890,979 591,594	1,655,112 519,044	2,203,627 691,470	4,013,391 1,255,505	\$ 29,237,353 4,937,735
With Rate Adjustment	Beginning Under/(Over)	May-18 (Actual)	Jun-18 (Actual)		Jul-18 (Estimate)	Aug-18 (Estimate)	Sep-18 (Estimate)	Oct-18 (Estimate)	Total Peak
Total Gas Costs		\$ 1,790,052	\$ 1,418,314	\$	884,049	\$ 805,888	\$ 792,246	\$ 1,524,905	\$ 7,215,453
Adjustments and Indirect Costs Refunds & Adjustments COG Bad Debt Inventory Financing		\$ - - -	\$ - - -	\$	- - -	\$ - - -	\$ - - -	\$ - - -	\$ - - -
Transportation Revenue Broker Revenue Off System and Capacity Release Fixed Price Option Admin.		- - -	- - -		(22,942) (57,798) (9,523)	(25,112) (260,455) (8,400)	(23,668) (87,418) (14,105)	(20,465) (56,671) (12,378)	(92,187) (462,343) (44,406)
Bad Debt Costs Working Capital Misc Overhead Production & Storage		(5,724) 1,132 - 405	(60,749) (206) - 405		(28,993) (1,812) 694 405	(25,219) (1,576) 608 405	(33,995) (2,125) 809 405	(62,951) (3,934) 1,474 405	(217,630) (8,521) 3,585 2,433
Total Indirect Costs		\$ (4,186)	\$ (60,549)	\$	(119,969)	\$ (319,749)	\$ (160,096)	\$ (154,520)	\$ (819,069)
Interest		(2,719)	(135)		(3,129)	(2,528)	(2,471)	(3,890)	\$ (14,872)
Total Gas Costs plus Indirect Costs	\$ (1,020,256)	1,783,146	1,357,630		760,951	483,611	629,680	1,366,494	\$ 5,361,256
Total Forecasted Sales Volumes		12,635,276	6,838,969		1,890,979	1,655,112	2,203,627	4,013,391	29,237,353
Total Forecasted Collections		893,509	986,614		591,594	608,089	810,025	1,471,425	\$ 5,361,256

LIBERTY UTILITIES - KEENE DIVISION

PRIOR PERIOD (OVER)/UNDER COLLECTION SUMMER PERIOD 2018

	COSTS	PRIOR		Actual <u>May-18</u>	Actual Jun-18	Estimated Jul-18	Estimated Aug-18	Estimated Sep-18	Estimated Oct-18	<u>TOTAL</u>
1	FIRM SENDOUT (therms)			54,606	43,521	44,693	46,581	48,457	88,456	326,314
2	COMPANY USE (therms)			2,356	2,202	2,002	2,126	2,170	2,699	13,555
3	TOTAL SENDOUT (therms)			56,962	45,723	46,695	48,707	50,627	91,155	339,869
4	COST PER THERM			\$1.2055	\$1.2025	\$1.1839	\$1.1656	\$1.1568	\$1.1389	\$1.1713
5	DIRECT PROPANE PURCHASED COSTS			\$68,665	\$54,982	\$55,284	\$56,773	\$58,567	\$103,815	\$398,086
6	PROPANE COST ADJUSTMENTS		\$	(155,515)	(\$676)	\$0	\$0	\$0	\$0	(\$156,190)
7	CNG DEMAND CHARGES		\$	10,417	\$10,417	\$0	\$0	\$0	\$0	\$20,833
8	UNAPPROVED CNG CHARGES		\$	(10,417)	\$ (10,417)	\$0	\$0	\$0	\$0	(\$20,833)
9	UNBILLED PROPANE COSTS (NET)			(\$65,772)	\$23,864	\$41,908	\$0	\$0	\$0	\$0
10	TOTAL PROPANE COSTS		((\$152,622)	\$78,170	\$97,192	\$56,773	\$58,567	\$103,815	\$241,895
	REVENUES									
11	FIRM SALES (therms)			111,614	53,960	44,129	38,460	35,670	38,574	322,407
12	RATE PER THERM			\$0.9995	\$1.0765	\$0.9752	\$0.9752	\$0.9752	\$0.9752	\$1.1343
13	TOTAL REVENUES			\$157,664	\$54,894	\$43,035	\$37,506	\$34,785	\$37,617	\$365,501
14	(OVER)/UNDER COLLECTION		((\$310,286)	\$23,276	\$54,158	\$19,267	\$23,782	\$66,197	(\$123,607)
15	INTEREST AMOUNT			(\$204)	(\$733)	(\$191)	(\$181)	(\$166)	(\$78)	(\$1,553)
16	TOTAL (OVER)/UNDER COLLECTION - FINAL	\$ 99,350	((\$310,490)	\$22,542	\$53,968	\$19,086	\$23,616	\$66,119	(\$25,809)
18 19 20 21 22 23	FORECASTED (OVER)/UNDER COLLECTION (befor DIVIDED BY REMAINING FORECASTED SALES FOR CHANGE TO COG RATE REQUIRED TO ELIMINAT CURRENT COST OF GAS RATE BEGINNING SUMMER PERIOD COST OF GAS RATE MAXIMUM ALLOWABLE COST OF GAS RATE MAXIMUM ALLOWABLE INCREASE REVISED COST OF GAS RATE	OR PERIOD E FORECA	o ັ	,	UNDER COI	LLECTION				(\$25,809) 112,704 (\$0.2290) \$0.9752 \$0.9995 \$1.2494 \$0.2499 \$0.7462

LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP D/B/A LIBERTY UTILITIES - KEENE DIVISION ELECTS TO IMPLEMENT A \$0.2290 DECREASE TO THE COST OF GAS RATE.

25 <u>N</u>	Mont Belvieu Futures Prices (per gallon)	Λ	<i>⁄</i> lay-18	<u>Jun-18</u>	<u>Jul-18</u>	1	\ug-18	5	Sep-18	(Oct-18
26 5	Summer COG Filing - quotations	\$	0.9121	\$ 0.7306	\$ 0.7294	\$	0.7319	\$	0.7350	\$	0.7400
27 .	June 1 Rate Update - 05/15/18 quotations	\$	0.9121	\$ 0.9300	\$ 0.9225	\$	0.9200	\$	0.9200	\$	0.9188
28 .	July 1 Rate Update -06/14/18 quotations			\$ 0.8871	\$ 0.8846	\$	0.8871	\$	0.8896	\$	0.8907
29 A	August 1 Rate Update -07/17/18 quotations				\$ 0.9071	\$	0.8725	\$	0.8725	\$	0.8725

CHECK SHEET

The title page and pages 1-148 inclusive of this tariff are effective as of the date shown on the individual tariff pages.

<u>Page</u>	Revision
Title	Original
TOC i	Original
TOC ii	Original
TOC iii	Original
TOC iv	Original
1	Fourth Revised
2	First Revised
3	Fourth Revised
4	Third Revised
5	Original
6	Original
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15	Original
16	Original
17	Original
18	Original
19	Original
20	Original
21	Original
22	Original
23	Original
24	Original

DATED: July 24, 2018 ISSUED BY: /s/Susan L. Fleck

Susan L. Fleck

EFFECTIVE: August 01, 2018 TITLE: President

Authorized by NHPUC Order No. 26,066 dated October 31, 2017, in Docket No. DG 17-135 and Order No. 26,126 dated May 1, 2018 in Docket DG 18-052

Page	Revision
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75	Original
76	First Revised
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78	First Revised
79	Original
80	First Revised
81	Original
82	First Revised
83	Original
84	Fourth Revised
85	Fourth Revised
86	Fourth Revised

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<u>Page</u>	Revision
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22 FIRM RATE SCHEDULES EXCLUDING KEENE CUSTOMERS

22 FIRM RATE SCHE	Rates effective		2018 - April			ive August 1, 2 Summe		er 31, 2018
	Delivery Charge	Cost of Gas Rate Page 92	LDAC Charge	Total <u>Rate</u>	Delivery Charge	Cost of Gas Rate Page 89	LDAC Page 97	Total <u>Rate</u>
Residential Non Heating - R-1 Customer Charge per Month per Meter All therms	\$16.88 \$0.2231	\$0.8056	\$0.0856	\$16.88 \$1.1143	\$ 15.02 \$ 0.3938		\$ 0.0945	\$ 15.02 \$0.8548
Residential Heating - R-3 Customer Charge per Month per Meter Size of the first block Therms in the first block per month at All therms over the first block per month at	\$24.43 100 therms \$0.3863 \$0.3197	\$ 0.8056 \$ 0.8056	\$ 0.0856 \$ 0.0856	\$24.43 \$ 1.2775 \$ 1.2109	\$ 15.02 all therm: \$ 0.5631	3	\$ 0.0945	\$ 15.02 \$1.0241
Residential Heating - R-4 Customer Charge per Month per Meter Size of the first block Therms in the first block per month at All therms over the first block per month at	\$9.77 100 therms \$0.1545 \$0.1278	\$ 0.8056 \$ 0.8056	\$ 0.0856 \$ 0.0856	\$9.77 \$ 1.0457 \$ 1.0190	\$ 6.00 all therm: \$ 0.2252	3	\$ 0.0945	\$ 6.00 \$0.6862
Commercial/Industrial - G-41 Customer Charge per Month per Meter Size of the first block Therms in the first block per month at All therms over the first block per month at	\$53.45 100 therms \$0.4383 \$0.2944	\$ 0.8041 \$ 0.8041	\$ 0.0674 \$ 0.0674	\$53.45 \$ 1.3098 \$ 1.1659	\$ 56.58 20 therm: \$ 0.4639 \$ 0.3116	s \$ 0.3604	\$ 0.0763 \$ 0.0763	\$ 56.58 \$0.9006 \$0.7483
Commercial/Industrial - G-42 Customer Charge per Month per Meter Size of the first block Therms in the first block per month at All therms over the first block per month at	\$160.36 1000 therms \$0.3986 \$0.2655	\$ 0.8041 \$ 0.8041	\$ 0.0674 \$ 0.0674	\$160.36 \$ 1.2701 \$ 1.1370	\$ 169.75 400 therm: \$ 0.4219 \$ 0.2811	s \$ 0.3604		
Commercial/Industrial - G-43 Customer Charge per Month per Meter All therms over the first block per month at	\$688.20 \$0.2449	\$0.8041	\$0.0674	\$688.20 \$1.1164	\$ 728.47 \$ 0.1185		\$ 0.0763	\$728.47 \$0.5552
Commercial/Industrial - G-51 Customer Charge per Month per Meter Size of the first block Therms in the first block per month at All therms over the first block per month at	\$53.45 100 therms \$0.2642 \$0.1717	\$ 0.8200 \$ 0.8200	\$ 0.0674 \$ 0.0674	\$53.45 \$ 1.1516 \$ 1.0591	\$ 56.58 100 therms \$ 0.2796 \$ 0.1817	s \$ 0.3873		\$ 56.58 \$0.7432 \$0.6453
Commercial/Industrial - G-52 Customer Charge per Month per Meter Size of the first block Therms in the first block per month at All therms over the first block per month at	\$160.36 1000 therms \$0.2268 \$0.1511	\$ 0.8200 \$ 0.8200	\$ 0.0674 \$ 0.0674		\$ 169.75 1000 therm: \$ 0.1740 \$ 0.0989	s \$ 0.3873		
Commercial/Industrial - G-53 Customer Charge per Month per Meter All therms over the first block per month at	\$708.24 \$0.1585	\$0.8200	\$0.0674	\$708.24 \$1.0459	\$ 749.68 \$ 0.0805			\$749.68 \$0.5441
Commercial/Industrial - G-54 Customer Charge per Month per Meter All therms over the first block per month at	\$708.24 \$0.0605	\$0.8200	\$0.0674	\$708.24 \$0.9479	\$ 749.68 \$ 0.0347		\$ 0.0763	\$749.68 \$0.4983

DATED: July 24, 2018 ISSUED BY: /s/Susan L. Fleck

Susan L. Fleck

EFFECTIVE: August 01, 2018 TITLE: President

23 FIRM RATE SCHEDULES KEENE CUSTOMERS

Rates Effective August 1, 2018 - October 31, 2018 Summer Period [1]

	_						
		Delivery <u>Charge</u>	G	Cost of as Rate ige 96		LDAC ige 90	Total Rate
Residential Non Heating - R-1							
Customer Charge per Month per Meter	\$	15.02					\$ 15.02
All therms	\$	0.3938	\$	0.7462	\$	0.0945	\$1.4635
Residential Heating - R-3							
Customer Charge per Month per Meter	\$	15.02					\$ 15.02
Size of the first block	Φ.	all therms 0.5631		0.7400	Φ.	0.0945	£4.0000
Therms in the first block per month at All therms over the first block per month at	\$	0.5051	Ф	0.7462	Φ	0.0945	\$1.6328
Residential Heating - R-4							
Customer Charge per Month per Meter	\$	6.00					\$ 6.00
Size of the first block		all therms					
Therms in the first block per month at All therms over the first block per month at	\$	0.2252	\$	0.7462	\$	0.0945	\$1.2949
Commercial/Industrial - G-41							
Customer Charge per Month per Meter	\$	56.58					\$ 56.58
Size of the first block		20 therms					
Therms in the first block per month at	\$	0.4639	-	0.7462		0.0763	\$1.5154
All therms over the first block per month at	\$	0.3116	\$	0.7462	\$	0.0763	\$1.3631
Commercial/Industrial - G-42							
Customer Charge per Month per Meter	\$	169.75					\$169.75
Size of the first block	•	400 therms		0.7400	•	0.0700	Ф4 4 7 04
Therms in the first block per month at All therms over the first block per month at	\$ \$	0.4219 0.2811		0.7462 0.7462		0.0763 0.0763	\$1.4734 \$1.3326
All therms over the lifst block per month at	φ	0.2011	Φ	0.7402	Φ	0.0703	φ 1.3320
Commercial/Industrial - G-43	•	700 47					# 700 47
Customer Charge per Month per Meter All therms over the first block per month at	\$ \$	728.47 0.1185	Ф	0.7462	Ф	0.0763	\$728.47 \$1.1700
All therms over the lifst block per month at	Ф	0.1105	Ф	0.7462	Ф	0.0763	ф 1.1700
Commercial/Industrial - G-51	•	56.58					PEC ED
Customer Charge per Month per Meter Size of the first block	\$	100 therms					\$56.58
Therms in the first block per month at	\$	0.2796		0.7462	\$	0.0763	\$1.3311
All therms over the first block per month at	\$	0.1817		0.7462		0.0763	\$1.2332
Commercial/Industrial - G-52							
Customer Charge per Month per Meter	\$	169.75					\$169.75
Size of the first block		1000 therms					ψσσσ
Therms in the first block per month at	\$	0.1740		0.7462	\$	0.0763	\$1.2255
All therms over the first block per month at	\$	0.0989	\$	0.7462	\$	0.0763	\$1.1504
Commercial/Industrial - G-53							
Customer Charge per Month per Meter	\$	749.68					\$749.68
All therms over the first block per month at	\$	0.0805	\$	0.7462	\$	0.0763	\$1.1320
Commercial/Industrial - G-54							
Customer Charge per Month per Meter	\$	749.68					\$749.68
All therms over the first block per month at	\$	0.0347	\$	0.7462	\$	0.0763	\$1.0862

[1] For Keene rates in effect prior to May 1, 2018 please see tariff: NHPUC NO. 1 - GAS LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP D/B/A LIBERTY UTILITIES - KEENE DIVISION

DATED: July 24, 2018 ISSUED BY: /s/Susan L. Fleck

Susan L. Fleck

EFFECTIVE: August 01, 2018 TITLE: President

24 FIRM RATE SCHEDULES EXCLUDING KEENE CUSTOMERS- MANAGED EXPANSION PROGRAM

II RATE SCHEDULES FIRM RATE SCHEDULES

Rates effective March 1, 2018 - April 30, 2018 Rates Effective August 1, 2018 - October 31, 2018

Winter Period Summer Period

	Delivery <u>Charge</u>	Cost of Gas Rate Page 92	LDAC <u>Charge</u>	Total <u>Rate</u>	Delivery <u>Charge</u>	Cost of Gas Rate Page 89	LDAC Page 97	Total <u>Rate</u>
Residential Non Heating - R-5 Customer Charge per Month per Meter	\$21.94			\$21.94	\$ 19.52			\$ 19.52
All therms	\$0.2900	\$0.8056	\$0.0856	\$1.1812		\$ 0.3665	\$ 0.0945	\$ 0.9191
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Residential Heating - R-6 Customer Charge per Month per Meter All therms Size of the first block	\$31.76			\$31.76	\$ 19.52 \$ 0.7320	\$ 0.3665	\$ 0.0945	\$ 19.52 \$ 1.1392
Therms in the first block per month at	\$0.5022	\$ 0.8056	\$ 0.0856	\$ 1.3934				
All therms over the first block per month at	*	\$ 0.8056	\$ 0.0856	\$ 1.3068				
Residential Heating - R-7 Customer Charge per Month per Meter All therms Size of the first block Therms in the first block per month at	\$12.70 100 therms \$0.2009	\$ 0.8056	•	\$12.70 \$ 1.0921	\$ 7.81 \$ 0.2928	\$ 0.3665	\$ 0.0945	\$ 7.81 \$ 0.7000
All therms over the first block per month at	\$0.1661	\$ 0.8056	\$ 0.0856	\$ 1.0573				
Commercial/Industrial - G-44 Customer Charge per Month per Meter Size of the first block	\$69.49 100 therms			\$69.49	\$ 73.56 20 therms			\$ 73.56
Therms in the first block per month at	\$0.5698	\$ 0.8041	\$ 0.0674	\$ 1.4413	\$ 0.6031		\$ 0.0763	\$ 0.9860
All therms over the first block per month at	\$0.3827	\$ 0.8041	\$ 0.0674	\$ 1.2542	\$ 0.4051	\$ 0.3604		\$ 0.7880
Commercial/Industrial - G-45 Customer Charge per Month per Meter Size of the first block Therms in the first block per month at All therms over the first block per month at	\$208.47 1000 therms \$0.5182 \$0.3452	•	\$ 0.0674 \$ 0.0674	•	\$ 220.68 400 therms \$ 0.5485 \$ 0.3654	\$ 0.3604	•	\$ 220.68 \$ 0.9314 \$ 0.7483
Commercial/Industrial - G-46 Customer Charge per Month per Meter All therms over the first block per month at	\$894.66 \$0.3184	\$0.8041	\$0.0674	\$894.66 \$1.1899	\$ 947.01 \$ 0.1540	\$ 0.3604	\$ 0.0763	\$ 947.01 \$ 0.5369
Commercial/Industrial - G-55 Customer Charge per Month per Meter	\$69.49			\$69.49	\$ 73.56			\$ 73.56
Size of the first block	100 therms			φ09.49	100 therms			φ 73.30
Therms in the first block per month at	\$0.3434	\$ 0.8200	\$ 0.0674	\$ 1.2308	\$ 0.3635	-	\$ 0.0763	\$ 0.7733
All therms over the first block per month at	\$0.2232		\$ 0.0674	\$ 1.1106	\$ 0.2363	\$ 0.3873	\$ 0.0763	\$ 0.6461
Commercial/Industrial - G-56 Customer Charge per Month per Meter Size of the first block	\$208.47 1000 therms			\$208.47	\$ 220.68			\$ 220.68
Therms in the first block per month at	\$0.2949	\$ 0.8200	\$ 0.0674	\$ 1.1823	\$ 0.2262		\$ 0.0763	\$ 0.6360
All therms over the first block per month at	\$0.1964	\$ 0.8200	\$ 0.0674	\$ 1.0838	\$ 0.1286		•	•
Commercial/Industrial - G-57 Customer Charge per Month per Meter All therms over the first block per month at	\$920.72 \$0.2061	\$0.8200	\$0.0674	\$920.72 \$1.0935	\$ 974.59 \$ 0.1047		\$ 0.0763	\$ 974.59 \$ 0.5145
Commercial/Industrial - G-58								
Customer Charge per Month per Meter All therms over the first block per month at	\$920.72 \$0.0786	\$0.8200	\$0.0674	\$920.72 \$0.9660	\$ 974.59 \$ 0.0451	\$ 0.3873	\$ 0.0763	\$ 974.59 \$ 0.4549

DATED: July 24, 2018 ISSUED BY: /s/Susan L. Fleck

Susan L. Fleck

EFFECTIVE: August 01, 2018 TITLE: President

27 CALCULATION OF FIRM SALES SUMMER PERIOD COST OF GAS RATE EXCLUDING KEENE CUSTOMERS

CALCULATION OF FIRM SALES COST OF GAS RATE
PERIOD COVERED: SUMMER PERIOD, MAY 1, 2018 THROUGH OCTOBER 31, 2018
(Refer to Text in Section 16 Cost of Gas Clause)

			(Col 2)	((Col 3)	
Total Anticipated Direct Cost of Gas Projected Prorated Sales (05/01/18 - 10/31/18) Direct Cost of Gas Rate		\$	5,899,258 19,395,370	\$	0.3042	per therm
Demand Cost of Gas Rate Commodity Cost of Gas Rate Adjustment Cost of Gas Rate Total Direct Cost of Gas Rate		\$ -	3,898,265 2,801,331 (800,338) 5,899,258	\$ \$ \$	0.2010 0.1444 (0.0413)	per therm per therm per therm per therm
Total Anticipated Indirect Cost of Gas Projected Prorated Sales (05/01/18 - 10/31/18) Indirect Cost of Gas		\$	177,463 19,395,370	\$	0.0091	per therm
TOTAL PERIOD AVERAGE COST OF GAS EFFECTIVE 05/01/18				\$	0.3133	per therm
RESIDENTIAL COST OF GAS RATE - 05/01/2018 Change in rate due to change in under/over recovery RESIDENTIAL COST OF GAS RATE - 06/01/2018 Change in rate due to change in under/over recovery		COGsi		\$ \$ \$	0.0783	/therm
RESIDENTIAL COST OF GAS RATE - 07/01/2018 Change in rate due to change in under/over recovery		COGs	•	\$ *\$	0.3127 0.0538	/therm
RESIDENTIAL COST OF GAS RATE - 08/01/2018		COGs		\$	0.3665	/therm
		Maximum (COG	+ 25%)	\$	0.3916	
COM/IND LOW WINTER USE COST OF GAS RATE - 05/01/2018		COGsl		\$		/therm
Change in rate due to change in under/over recovery COM/IND LOW WINTER USE COST OF GAS RATE - 06/01/2018		COGsl		\$	0.0825	/therm
Change in rate due to change in under/over recovery				\$	(0.0789)	,
COM/IND LOW WINTER USE COST OF GAS RATE - 07/01/2018		COGsl		\$	0.3335	/therm
Change in rate due to change in under/over recovery						
		000-1		\$	0.0538	40
COM/IND LOW WINTER USE COST OF GAS RATE - 08/01/2018		COGsl		\$ \$		/therm
	\$ 0.2010 1.0892 0.9942 \$ 0.2177 \$ 0.1444 \$ (0.0413) \$ 0.0091	COGsi		_		/therm
COM/IND LOW WINTER USE COST OF GAS RATE - 08/01/2018 Average Demand Cost of Gas Rate Effective 05/01/18 Times: Low Winter Use Ratio (Summer) Times: Correction Factor Adjusted Demand Cost of Gas Rate Commodity Cost of Gas Rate Adjustment Cost of Gas Rate	1.0892 0.9942 \$ 0.2177 \$ 0.1444			\$	0.3873	/therm
COM/IND LOW WINTER USE COST OF GAS RATE - 08/01/2018 Average Demand Cost of Gas Rate Effective 05/01/18 'Times: Low Winter Use Ratio (Summer) Times: Correction Factor Adjusted Demand Cost of Gas Rate Commodity Cost of Gas Rate Adjustment Cost of Gas Rate Indirect Cost of Gas Rate	1.0892 0.9942 \$ 0.2177 \$ 0.1444 \$ (0.0413) \$ 0.0091		+ 25%)	\$	0.4124	/therm
Average Demand Cost of Gas Rate Effective 05/01/18 Times: Low Winter Use Ratio (Summer) Times: Correction Factor Adjusted Demand Cost of Gas Rate Commodity Cost of Gas Rate Adjustment Cost of Gas Rate Indirect Cost of Gas Rate Adjusted Com/Ind Low Winter Use Cost of Gas Rate COM/IND HIGH WINTER USE COST OF GAS RATE - 05/01/2018 Change in rate due to change in under/over recovery	1.0892 0.9942 \$ 0.2177 \$ 0.1444 \$ (0.0413) \$ 0.0091	Maximum (COG	+ 25%)	\$ \$ \$ \$	0.3873 0.4124 0.3084 0.0771	/therm
Average Demand Cost of Gas Rate Effective 05/01/18 Times: Low Winter Use Ratio (Summer) Times: Correction Factor Adjusted Demand Cost of Gas Rate Commodity Cost of Gas Rate Adjustment Cost of Gas Rate Indirect Cost of Gas Rate Adjusted Com/Ind Low Winter Use Cost of Gas Rate COM/IND HIGH WINTER USE COST OF GAS RATE - 05/01/2018 Change in rate due to change in under/over recovery COM/IND HIGH WINTER USE COST OF GAS RATE - 06/01/2018	1.0892 0.9942 \$ 0.2177 \$ 0.1444 \$ (0.0413) \$ 0.0091	Maximum (COG	+ 25%)	\$ \$	0.3873 0.4124 0.3084 0.0771 0.3855	/therm
Average Demand Cost of Gas Rate Effective 05/01/18 Times: Low Winter Use Ratio (Summer) Times: Correction Factor Adjusted Demand Cost of Gas Rate Commodity Cost of Gas Rate Adjustment Cost of Gas Rate Adjustment Cost of Gas Rate Indirect Cost of Gas Rate Adjusted Com/Ind Low Winter Use Cost of Gas Rate COM/IND HIGH WINTER USE COST OF GAS RATE - 05/01/2018 Change in rate due to change in under/over recovery COM/IND HIGH WINTER USE COST OF GAS RATE - 06/01/2018 Change in rate due to change in under/over recovery	1.0892 0.9942 \$ 0.2177 \$ 0.1444 \$ (0.0413) \$ 0.0091	Maximum (COG COGsi	+ 25%)	\$ \$ \$ \$	0.3873 0.4124 0.3084 0.0771 0.3855 (0.0789)	/therm
Average Demand Cost of Gas Rate Effective 05/01/18 Times: Low Winter Use Ratio (Summer) Times: Correction Factor Adjusted Demand Cost of Gas Rate Commodity Cost of Gas Rate Adjustment Cost of Gas Rate Indirect Cost of Gas Rate Adjusted Com/Ind Low Winter Use Cost of Gas Rate COM/IND HIGH WINTER USE COST OF GAS RATE - 05/01/2018 Change in rate due to change in under/over recovery COM/IND HIGH WINTER USE COST OF GAS RATE - 06/01/2018	1.0892 0.9942 \$ 0.2177 \$ 0.1444 \$ (0.0413) \$ 0.0091	Maximum (COG	+ 25%)	\$ \$	0.3873 0.4124 0.3084 0.0771 0.3855 (0.0789)	/therm
COM/IND LOW WINTER USE COST OF GAS RATE - 08/01/2018 Average Demand Cost of Gas Rate Effective 05/01/18 Times: Low Winter Use Ratio (Summer) Times: Correction Factor Adjusted Demand Cost of Gas Rate Commodity Cost of Gas Rate Adjustment Cost of Gas Rate Indirect Cost of Gas Rate Adjusted Com/Ind Low Winter Use Cost of Gas Rate COM/IND HIGH WINTER USE COST OF GAS RATE - 05/01/2018 Change in rate due to change in under/over recovery COM/IND HIGH WINTER USE COST OF GAS RATE - 06/01/2018 Change in rate due to change in under/over recovery COM/IND HIGH WINTER USE COST OF GAS RATE - 07/01/2018	1.0892 0.9942 \$ 0.2177 \$ 0.1444 \$ (0.0413) \$ 0.0091	Maximum (COG COGsi	+ 25%)	\$ \$ \$ \$ \$	0.3084 0.0771 0.3855 (0.0786) 0.3066	/therm

DATED: July 24, 2018 ISSUED BY: /s/Susan L. Fleck

\$ 0.1962

\$ 0.1444

\$ (0.0413) \$ 0.0091 \$ 0.3084

Susan L. Fleck

EFFECTIVE: August 01, 2018 TITLE: President

Adjusted Demand Cost of Gas Rate

Adjusted Com/Ind High Winter Use Cost of Gas Rate

Commodity Cost of Gas Rate

Adjustment Cost of Gas Rate

Indirect Cost of Gas Rate

28 CALCULATION OF SUMMER PERIOD COST OF GAS RATE – KEENE CUSTOMERS LIBERTY UTILITIES - KEENE DIVISION

Period Covered: Summer Period May 1, 2018, through October 31, 2018

Projected Gas Sales - therms 324,490

Total Anticipated Cost of Propane Sendout \$415,169

Add: Prior Period Deficiency Uncollected \$0

Interest \$0

Deduct: Prior Period Excess Collected (\$87,881)

Interest (\$2,955)

Prior Period Adjustments and Interest (\$90,836)

Total Anticipated Cost \$324,333

Cost of Gas Rate - Beginning Period (per therm) \$0.9995

Mid Period Adjustment - June 1, 2018 \$0.0770

Mid Period Adjustment - July 1, 2018 \$0.0710

Mid Period Adjustment - August 1, 2018

Revised Cost of Gas Rate - Effective August 1, 2018 (per therm) \$0.7462

Pursuant to tariff section 16.2(D), the Company may adjust the approved

cost of gas rate upward on a monthly basis to the following rate:

Maximum Cost of Gas Rate (per therm) \$1.2494

DATED: July 24, 2018 ISSUED BY: /s/Susan L. Fleck

Susan L. Fleck

(\$0.2290)

EFFECTIVE: August 01, 2018 TITLE: President

Authorized by NHPUC Order No. 26,126 dated May 1, 2018 in Docket DG 18-052