

Catherine A. McNamara Analyst II, Rates & Regulatory Affairs O: 603-216-3537 E: <u>Catherine.McNamara@libertyutilities.com</u>

August 16, 2018

Via ERF and US Mail

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 2018 Summer Period Cost of Gas – August 2018 Monthly COG Adjustment - Revised

Dear Ms. Howland:

On behalf of Liberty Utilities (EnergyNorth Natural Gas) Corp. and in accordance with New Hampshire Public Utilities Commission Order No. 26,066 (October 31, 2017) in Docket DG 17-135, 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. As requested by the PUC staff on July 20, 2018, we are filing a revised Cost of Gas for EnergyNorth Natural Gas separate from the Keene Division .

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.

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

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

_	ENNG Excluding Keene Cost of Gas Rate						
	<u>Current</u>	<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				

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

Debra A. Howland DG 17-135 Page 2

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			Ψ	
Change in rate used to reduce forecast under/(over) collection Current Cost of Gas Rate			\$	0.3127

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		\$ -	\$ -	\$	- -	\$ - -	\$ - -	\$	- -	\$ -
Inventory Financing Transportation Revenue Broker Revenue Off System and Capacity Release		- - -	-		(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)
Fixed Price Option Admin. 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 (EnergyNorth Natural Gas) Corp. Off Peak 2018 Summer Cost of Gas Filing

Filed Tariff Sheets

Proposed Fourth Revised Page 1
Check Sheet

Proposed Fourth Revised Page 3 Check Sheet (Cont'd)

Proposed Fourth Revised Page 4 Check Sheet (Cont'd)

Proposed Fourth Revised Page 84
Calculation Firm Sales Cost of Gas Rate

Proposed Fourth Revised Page 86
Calculation of Firm Sales Cost of Gas Rate

Proposed Third Revised Page 89
Calculation of Firm Transportation Cost of Gas Rate

EFFECTIVE:

August 01, 2018

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

Susan L. Fleck TITLE: President

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Susan L. Fleck

22 FIRM RATE SCHEDULES EXCLUDING KEENE CUSTOMERS

	Rates effective	e March 1, 2 Winter		30, 2018	Rates Effective August 1, 2018 - October 31, 2018 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-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	\$ 0.3665	\$ 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		\$ 0.0856 \$ 0.0856	\$24.43 \$ 1.2775 \$ 1.2109	\$ 15.02 all therms \$ 0.5631		\$ 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	\$ 0.0856	\$9.77 \$ 1.0457 \$ 1.0190	\$ 6.00 all therms \$ 0.2252	\$ 0.3665	\$ 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 therms \$ 0.4639 \$ 0.3116		\$ 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		\$ 169.75 400 therms \$ 0.4219 \$ 0.2811		\$ 0.0763 \$ 0.0763	\$169.75 \$0.8586 \$0.7178			
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	\$ 0.3604	\$ 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		\$ 0.0763 \$ 0.0763	\$ 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	\$160.36 1000 therms \$0.2268	\$ 0.8200	\$ 0.0674	\$160.36 \$ 1.1142	\$ 169.75 1000 therms \$ 0.1740						
All therms over the first block per month at Commercial/Industrial - G-53 Customer Charge per Month per Meter All therms over the first block per month at	\$0.1511 \$708.24 \$0.1585	\$ 0.8200 \$0.8200	\$ 0.0674 \$0.0674	\$ 1.0385 \$708.24 \$1.0459	\$ 0.0989 \$ 749.68 \$ 0.0805	•	\$ 0.0763 \$ 0.0763	\$ 0.5625 \$ 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	\$ 0.3873	\$ 0.0763	\$749.68 \$0.4983			

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Susan L. Fleck

24 FIRM RATE SCHEDULES EXCLUDING KEENE CUSTOMERS – MANAGED EXPANSION PROGRAM

II RATE SCHEDULES FIRM RATE SCHEDULES

Rates effective March 1, 2018 - April 30, 2018

Winter Period

Rates Effective August 1, 2018 - October 31, 2018

Summer Period

		********	. 000					<u> </u>	. 000		
	Delivery <u>Charge</u>	Cost of Gas Rate Page 92	LDAC <u>Charge</u>	Total <u>Rate</u>		elivery Charge	G	Cost of as Rate ge 89	LDAC Page 97		Total <u>Rate</u>
Residential Non Heating - R-5 Customer Charge per Month per Meter All therms	\$21.94 \$0.2900	\$0.8056	\$0.0856	\$21.94 \$1.1812	\$ \$	19.52 0.5119	\$	0.3665	\$ 0.0945	\$ \$	19.52 0.9191
Residential Heating - R-6 Customer Charge per Month per Meter All therms Size of the first block	\$31.76 100 therms			\$31.76	\$	19.52 0.7320	\$	0.3665	\$ 0.0945	\$	19.52 1.1392
Thems in the first block per month at All therms over the first block per month at	\$0.5022 \$0.4156	\$ 0.8056 \$ 0.8056	\$ 0.0856 \$ 0.0856	\$ 1.3934 \$ 1.3068							
Residential Heating - R-7 Customer Charge per Month per Meter All therms Size of the first block	\$12.70			\$12.70	\$	7.81 0.2928	\$	0.3665	\$ 0.0945	\$ \$	7.81 0.7000
Therms in the first block per month at All therms over the first block per month at	\$0.2009 \$0.1661	\$ 0.8056 \$ 0.8056	\$ 0.0856 \$ 0.0856	\$ 1.0921 \$ 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 All therms over the first block per month at	\$0.5698 \$0.3827	\$ 0.8041 \$ 0.8041	\$ 0.0674 \$ 0.0674	\$ 1.4413 \$ 1.2542	\$ \$	0.6031 0.4051	\$ \$	0.3604 0.3604		- 1	0.9860 0.7880
Commercial/Industrial - G-45 Customer Charge per Month per Meter Size of the first block	\$208.47 1000 therms			\$208.47	\$ 40	220.68 00 therms				\$	220.68
Therms in the first block per month at All therms over the first block per month at	\$0.5182 \$0.3452		\$ 0.0674 \$ 0.0674	\$ 1.3897 \$ 1.2167	\$ \$	0.5485 0.3654	\$ \$	0.3604 0.3604	\$ 0.0763 \$ 0.0763		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 Size of the first block	\$69.49 100 therms			\$69.49	\$ 10	73.56 00 therms				\$	73.56
Therms in the first block per month at All therms over the first block per month at	\$0.3434 \$0.2232	\$ 0.8200 \$ 0.8200	\$ 0.0674 \$ 0.0674	\$ 1.2308 \$ 1.1106	\$ \$	0.3635 0.2363	\$ \$	0.3873 0.3873	\$ 0.0763 \$ 0.0763		0.7733 0.6461
Commercial/Industrial - G-56 Customer Charge per Month per Meter Size of the first block	\$208.47 1000 therms			\$208.47	\$ 100	220.68 00 therms				\$	220.68
Therms in the first block per month at All therms over the first block per month at	\$0.2949 \$0.1964	\$ 0.8200 \$ 0.8200	\$ 0.0674 \$ 0.0674	\$ 1.1823 \$ 1.0838	\$ \$	0.2262 0.1286	\$ \$	0.3873 0.3873	\$ 0.0763 \$ 0.0763		0.6360 0.5384
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	\$	0.3873	\$ 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

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

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 1)			(Col 2)		(Col 3)	
Total Anticipated Direct Cost of Cos		\$	5,899,258			
Total Anticipated Direct Cost of Gas Projected Prorated Sales (05/01/18 - 10/31/18)		ą.	19,395,370			
Direct Cost of Gas Rate			19,595,570	\$	0.3042	per therm
5.1001.000.01.000.1000				•	0.00 12	por 11101111
Demand Cost of Gas Rate		\$	3,898,265	\$	0.2010	per therm
Commodity Cost of Gas Rate			2,801,331	\$	0.1444	per therm
Adjustment Cost of Gas Rate			(800,338)	\$	(0.0413)	per therm
Total Direct Cost of Gas Rate		\$	5,899,258	\$	0.3042	per therm
Total Anticipated Indirect Cost of Gas		\$	177,463			
Projected Prorated Sales (05/01/18 - 10/31/18)			19,395,370			
Indirect Cost of Gas				\$	0.0091	per therm
TOTAL PERIOD AVERAGE COST OF GAS EFFECTIVE 05/01/18				\$	0.3133	per therm
						<u> </u>
RESIDENTIAL COST OF GAS RATE - 05/01/2018		COG	isr	\$		/therm
Change in rate due to change in under/over recovery RESIDENTIAL COST OF GAS RATE - 06/01/2018		COG	er	\$	0.0783	/therm
Change in rate due to change in under/over recovery		000	151	_	(0.0789)	
RESIDENTIAL COST OF GAS RATE - 07/01/2018		cog	ier	\$		/therm
Change in rate due to change in under/over recovery			, GI	' \$	0.0538	/ulc/III
RESIDENTIAL COST OF GAS RATE - 08/01/2018		cod	isr	\$		/therm
THE STATE OF THE S				Ť	0.0000	74.10.111
		Maximum (CO	G + 25%)	\$	0.3916	
COM/IND LOW WINTER USE COST OF GAS RATE - 05/01/2018		COG	isl	\$	0.3299	/therm
COM/IND LOW WINTER USE COST OF GAS RATE - 05/01/2018 Change in rate due to change in under/over recovery		COG	isl	\$	0.3299 0.0825	/therm
Change in rate due to change in under/over recovery COM/IND LOW WINTER USE COST OF GAS RATE - 06/01/2018		cod		\$	0.0825 0.4124	/therm
Change in rate due to change in under/over recovery COM/IND LOW WINTER USE COST OF GAS RATE - 06/01/2018 Change in rate due to change in under/over recovery		COG	isl	\$ \$	0.0825 0.4124 (0.0789)	/therm
Change in rate due to change in under/over recovery COM/IND LOW WINTER USE COST OF GAS RATE - 06/01/2018 Change in rate due to change in under/over recovery COM/IND LOW WINTER USE COST OF GAS RATE - 07/01/2018			isl	\$ \$ \$	0.0825 0.4124 (0.0789) 0.3335	/therm
Change in rate due to change in under/over recovery COM/IND LOW WINTER USE COST OF GAS RATE - 06/01/2018 Change in rate due to change in under/over recovery COM/IND LOW WINTER USE COST OF GAS RATE - 07/01/2018 Change in rate due to change in under/over recovery		COG	isl	\$ \$ \$ \$	0.0825 0.4124 (0.0789) 0.3335 0.0538	/therm
Change in rate due to change in under/over recovery COM/IND LOW WINTER USE COST OF GAS RATE - 06/01/2018 Change in rate due to change in under/over recovery COM/IND LOW WINTER USE COST OF GAS RATE - 07/01/2018		COG	isl	\$ \$ \$	0.0825 0.4124 (0.0789) 0.3335 0.0538	/therm
Change in rate due to change in under/over recovery COM/IND LOW WINTER USE COST OF GAS RATE - 06/01/2018 Change in rate due to change in under/over recovery COM/IND LOW WINTER USE COST OF GAS RATE - 07/01/2018 Change in rate due to change in under/over recovery	\$ 0.2010 1.0892 0.9942 \$ 0.2177 \$ 0.1444 \$ (0.0413) \$ 0.0091 \$ 0.3299	COG	isl isl	\$ \$ \$ \$ \$	0.0825 0.4124 (0.0789) 0.3335 0.0538	/therm
Change in rate due to change in under/over recovery COM/IND LOW WINTER USE COST OF GAS RATE - 06/01/2018 Change in rate due to change in under/over recovery COM/IND LOW WINTER USE COST OF GAS RATE - 07/01/2018 Change in rate due to change in under/over recovery 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	1.0892 0.9942 \$ 0.2177 \$ 0.1444 \$ (0.0413) \$ 0.0091	COG	isl isl isl 3 + 25%)	\$ \$ \$ \$ \$	0.0825 0.4124 (0.0789) 0.3335 0.0538 0.3873	/therm
Change in rate due to change in under/over recovery COM/IND LOW WINTER USE COST OF GAS RATE - 06/01/2018 Change in rate due to change in under/over recovery COM/IND LOW WINTER USE COST OF GAS RATE - 07/01/2018 Change in rate due to change in under/over recovery 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 Adjusted Demand Cost of Gas Rate Adjustment Cost of Gas Rate Indirect Cost of Gas Rate Adjusted Com/Ind Low Winter Use 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	COG COG COG	isi isi 3 + 25%)	\$ \$ \$	0.0825 0.4124 (0.0789) 0.3335 0.0538 0.3873 0.4124	/therm /therm /therm
Change in rate due to change in under/over recovery COM/IND LOW WINTER USE COST OF GAS RATE - 06/01/2018 Change in rate due to change in under/over recovery COM/IND LOW WINTER USE COST OF GAS RATE - 07/01/2018 Change in rate due to change in under/over recovery 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 Adjusted Demand Cost of Gas Rate Adjustent 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	COG COG Maximum (COG	isi isi 3 + 25%)	\$ \$ \$	0.0825 0.4124 (0.0789) 0.3335 0.0538 0.3387 0.4124 0.3084 0.0771 0.3855	/therm /therm /therm /therm /therm
Change in rate due to change in under/over recovery COM/IND LOW WINTER USE COST OF GAS RATE - 06/01/2018 Change in rate due to change in under/over recovery COM/IND LOW WINTER USE COST OF GAS RATE - 07/01/2018 Change in rate due to change in under/over recovery 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 Adjustment 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	COG COG COG COG	isisisisisisisisisisisisisisisisisisis	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	0.0825 0.4124 (0.0789) 0.3335 0.0538 0.3873 0.4124 0.4124	/therm /therm /therm /therm /therm
Change in rate due to change in under/over recovery COM/IND LOW WINTER USE COST OF GAS RATE - 06/01/2018 Change in rate due to change in under/over recovery COM/IND LOW WINTER USE COST OF GAS RATE - 07/01/2018 Change in rate due to change in under/over recovery 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 Adjusted Demand Cost of Gas Rate Adjustment 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	COG COG COG	isisisisisisisisisisisisisisisisisisis	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	0.0825 0.4124 (0.0789) 0.3335 0.0538 0.3873 0.4124 0.3084 0.0771 0.3855 (0.0789) 0.3066	/therm /therm /therm /therm /therm
Change in rate due to change in under/over recovery COM/IND LOW WINTER USE COST OF GAS RATE - 06/01/2018 Change in rate due to change in under/over recovery COM/IND LOW WINTER USE COST OF GAS RATE - 07/01/2018 Change in rate due to change in under/over recovery 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 Adjustment 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	COG COG COG COG	isisisisisisisisisisisisisisisisisisis	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	0.0825 0.4124 (0.0789) 0.3335 0.0538 0.3873 0.4124 0.3084 0.0771 0.3855 (0.0789) 0.3066 0.0538	/therm /therm /therm /therm /therm

Average Demand Cost of Gas Rate Effective 05/01/18 Times: High Winter Use Ratio (Summer) Times: Correction Factor Adjusted Demand Cost of Gas Rate	\$ 0.2010 0.9820 0.9942 \$ 0.1962	Maximum (COG + 25%)	\$ 0.3855
Commodity Cost of Gas Rate	\$ 0.1444		
Adjustment Cost of Gas Rate	\$ (0.0413)		
Indirect Cost of Gas Rate	\$ 0.0091		
Adjusted Com/Ind High Winter Use Cost of Gas Rate	\$ 0.3084		

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

Susan L. Fleck