

LIBERTY UTILITIES - KEENE DIVISION
 CONVERSION OF GAS COSTS - GALLONS TO THERMS
 SUMMER PERIOD 2017

	(1)	(2)	(3) (4)		(5)	(6)
			<u>VOLUMES</u>		<u>UNIT COST</u>	
	<u>UNIT</u>	<u>CONVERSION FACTOR</u>	<u>GALLONS</u>	<u>THERMS</u>	<u>PER GALLON</u>	<u>PER THERM</u>
PROPANE FROM INVENTORY	GALLONS	0.91502	394,448	360,928	\$0.7909	\$0.8643

LIBERTY UTILITIES - KEENE DIVISION

CALCULATION OF COST OF GAS RATE
SUPPLY / DEMAND BALANCE
SUMMER PERIOD 2017

	PRIOR	MAY-17	JUN-17	JUL-17	AUG-17	SEP-17	OCT-17	TOTAL
<u>SENDOUT (THERMS)</u>								
1	FIRM SENDOUT *	67,945	44,331	40,943	43,281	54,719	95,857	347,076
2	COMPANY USE	2,385	2,072	2,017	1,986	2,339	3,053	13,852
3	TOTAL SENDOUT	70,330	46,403	42,960	45,267	57,058	98,910	360,928
4	* UNACCTED FOR VOLS INCLUDED	2,424	1,582	1,461	1,544	1,952	3,420	12,384
<u>COSTS</u>								
5	PROPANE SENDOUT FROM ABOVE	70,330	46,403	42,960	45,267	57,058	98,910	360,928
6	COST/THERM FROM SCHEDULE D	\$0.8142	\$0.8435	\$0.8595	\$0.8722	\$0.8849	\$0.8964	\$0.8643
7	TOTAL PROPANE COSTS	\$57,260	\$39,139	\$36,926	\$39,481	\$50,493	\$88,664	\$311,963
<u>REVENUES</u>								
8	FIRM SALES (THERMS)	96,707	56,672	49,784	32,358	38,474	58,499	332,494
9	RATE/THERM PER TARIFF	\$0.9645	\$0.9645	\$0.9645	\$0.9645	\$0.9645	\$0.9645	\$0.9645
10	TOTAL REVENUES	\$93,274	\$54,660	\$48,017	\$31,209	\$37,108	\$56,422	\$320,690
11	(OVER)/UNDER COLLECTION	(\$36,014)	(\$15,521)	(\$11,091)	\$8,272	\$13,385	\$32,242	(\$8,727)
12	INTEREST FROM SCHEDULE F	(\$28)	(\$108)	(\$150)	(\$155)	(\$122)	(\$51)	(\$614)
13	<u>FINAL (OVER)/UNDER COLLECTION</u>	<u>\$9,176</u>	<u>(\$36,042)</u>	<u>(\$15,629)</u>	<u>(\$11,241)</u>	<u>\$8,117</u>	<u>\$32,191</u>	<u>(\$165)</u>

LIBERTY UTILITIES - KEENE DIVISION

PROPANE SPOT MARKET PURCHASE COST ANALYSIS
SUMMER PERIOD 2017

		(1) Mt. Belvieu ¹		(2) Broker Fee		(3) Pipeline Rate ²		(4) PERC Fee		(5) Supplier Charge		(6) Cost @ Selkirk		(7) Trucking to Keene ³		(8) \$ per Gal.		(9) \$ per Therm
1	MAY	0.6154	+	0.0100	+	0.0000	+	0.0040	+	0.1200	=	0.7494	+	0.0601	=	0.8095	=	0.8847
2	JUN	0.6117	+	0.0100	+	0.0000	+	0.0040	+	0.1200	=	0.7457	+	0.0601	=	0.8058	=	0.8806
3	JUL	0.6129	+	0.0100	+	0.0000	+	0.0040	+	0.1200	=	0.7469	+	0.0601	=	0.8070	=	0.8820
4	AUG	0.6175	+	0.0100	+	0.0000	+	0.0040	+	0.1200	=	0.7515	+	0.0601	=	0.8116	=	0.8870
5	SEP	0.6258	+	0.0100	+	0.0000	+	0.0040	+	0.1200	=	0.7598	+	0.0601	=	0.8199	=	0.8961
6	OCT	0.6321	+	0.0100	+	0.0000	+	0.0040	+	0.1200	=	0.7661	+	0.0601	=	0.8262	=	0.9029

1. Propane futures market quotations (cmegroup.com) on 03/09/17 close. See Appendix 1.

2. Summer prices are quoted on a delivered basis with pipeline charges embedded in delivered price

3. Northern Gas Transport trucking rate including diesel fuel surcharge. See Appendix 3A & 3B.

LIBERTY UTILITIES - KEENE DIVISION

PROPANE INVENTORY & WEIGHTED AVERAGE COST OF GAS CALCULATION
SUMMER PERIOD 2017

LINE NO.

		<u>Therms</u>	<u>Cost</u>	<u>Rate</u>				
				<u>Therm</u>	<u>Gal.</u>			
1	May 2017 (Forecasted)							
2	Beginning Balance	62,428	\$46,242	\$0.7407	\$0.6778			
3	Purchases Received	65,000	\$57,506	\$0.8847	\$0.8095			
4	Total Available	127,428	\$103,748	\$0.8142	\$0.7450			
5	Less Sendout	70,330	\$57,260	\$0.8142	\$0.7450	70,330	\$57,260	
6	Ending Balance	57,098	\$46,488	\$0.8142	\$0.7450			
7	June 2017 (Forecasted)							
8	Beginning Balance	57,098	\$46,488	\$0.8142	\$0.7450			
9	Purchases Received	45,000	\$39,627	\$0.8806	\$0.8058			
10	Total Available	102,098	\$86,115	\$0.8435	\$0.7718			
11	Less Sendout	46,403	\$39,139	\$0.8435	\$0.7718	46,403	\$39,139	
12	Ending Balance	55,695	\$46,976	\$0.8434	\$0.7718			
13	July 2017 (Forecasted)							
14	Beginning Balance	55,695	\$46,976	\$0.8434	\$0.7718			
15	Purchases Received	40,000	\$35,279	\$0.8820	\$0.8070			
16	Total Available	95,695	\$82,255	\$0.8596	\$0.7865			
17	Less Sendout	42,960	\$36,926	\$0.8595	\$0.7865	42,960	\$36,926	
18	Ending Balance	52,735	\$45,329	\$0.8596	\$0.7865			
19	August 2017 (Forecasted)							
20	Beginning Balance	52,735	\$45,329	\$0.8596	\$0.7865			
21	Purchases Received	45,000	\$39,914	\$0.8870	\$0.8116			
22	Total Available	97,735	\$85,243	\$0.8722	\$0.7981			
23	Less Sendout	45,267	\$39,481	\$0.8722	\$0.7981	45,267	\$39,481	
24	Ending Balance	52,468	\$45,762	\$0.8722	\$0.7981			
25	September 2017 (Forecasted)							
26	Beginning Balance	52,468	\$45,762	\$0.8722	\$0.7981			
27	Purchases Received	60,000	\$53,765	\$0.8961	\$0.8199			
28	Total Available	112,468	\$99,527	\$0.8849	\$0.8097			
29	Less Sendout	57,058	\$50,493	\$0.8849	\$0.8097	57,058	\$50,493	
30	Ending Balance	55,410	\$49,034	\$0.8849	\$0.8097			
31	October 2017 (Forecasted)							
32	Beginning Balance	55,410	\$49,034	\$0.8849	\$0.8097			
33	Purchases Received	98,000	\$88,485	\$0.9029	\$0.8262			
34	Total Available	153,410	\$137,519	\$0.8964	\$0.8202			
35	Less Sendout	98,910	\$88,664	\$0.8964	\$0.8202	98,910	\$88,664	
36	Ending Balance	54,500	\$48,855	\$0.8964	\$0.8202			
37			AVERAGE SUMMER RATE - SENDOUT			\$0.8643	360,928	\$311,963

LIBERTY UTILITIES - KEENE DIVISION
PRIOR PERIOD (OVER)/UNDER COLLECTION
SUMMER PERIOD 2016

	<u>PRIOR</u>	<u>MAY-16</u>	<u>JUN-16</u>	<u>JUL-16</u>	<u>AUG-16</u>	<u>SEP-16</u>	<u>OCT-16</u>	[1] <u>TOTAL</u>
<u>COSTS</u>								
1 FIRM SENDOUT (therms)		63,810	41,716	39,482	41,737	47,858	85,274	319,878
2 COMPANY USE (therms)		2,385	2,072	2,017	1,986	2,339	3,053	13,851
3 TOTAL SENDOUT (therms)		66,195	43,788	41,499	43,723	50,197	88,327	333,729
4 COST PER THERM		\$0.9017	\$0.8394	\$0.7918	\$0.6545	\$0.6779	\$0.7311	\$0.7687
5 DIRECT PROPANE PURCHASED COSTS		\$59,690	\$36,758	\$32,860	\$28,615	\$34,028	\$64,574	\$256,524
6 DIRECT PROPANE PRODUCED COSTS		\$0	\$43,106	\$20,098	\$22,855	\$19,443	\$3,260	\$108,763
7 REMOVAL OF HP CONVERSION COSTS		\$0	\$0	\$0	(\$27)	(\$736)	(\$14,797)	(\$15,560)
8 PROPANE COST ADJUSTMENTS		\$0	\$33,567	(\$6,617)	\$0	\$0	\$0	\$26,950
9 UNBILLED PROPANE COSTS (NET)		\$0	\$0	\$1,013	(\$3,036)	(\$448)	\$15,656	\$13,185
10 TOTAL PROPANE COSTS		\$59,690	\$113,431	\$47,355	\$48,407	\$52,288	\$68,692	\$389,863
<u>REVENUES</u>								
11 FIRM SALES (therms)		99,306	55,173	44,525	32,358	38,474	52,146	321,982
12 RATE PER THERM		\$0.4019	\$0.4019	\$0.4019	\$0.4019	\$0.4019	\$0.5024	\$0.4182
13 TOTAL REVENUES		\$39,911	\$22,174	\$17,895	\$13,005	\$15,463	\$26,198	\$134,645
14 (OVER)/UNDER COLLECTION		\$19,779	\$91,257	\$29,460	\$35,402	\$36,825	\$42,494	\$255,217
15 INTEREST AMOUNT		(\$694)	(\$515)	(\$354)	(\$272)	(\$184)	(\$66)	(\$2,085)
16 TOTAL (OVER)/UNDER COLLECTION -	(\$244,121)	\$19,085	\$90,742	\$29,106	\$35,130	\$36,641	\$42,428	\$9,011

[1] Slightly off due to rounding

LIBERTY UTILITIES - KEENE DIVISION

INTEREST CALCULATION
SUMMER PERIOD 2017

LINE NO.	MONTH	(1) BEG. OF MONTH BALANCE	(2) (OVER) UNDER COLLECT	(3) REFUNDS	(4) END OF MONTH BALANCE (COL.1+2+3)	(5) AVERAGE BALANCE COL. (COL. [1+4]/2)	(6) ANNUAL INTEREST RATE	(7) INTEREST AMOUNT	(8) MONTH END BAL. WITH INTEREST (COL. 4+7)
1	NOV 2016	\$9,011	\$0	\$0	\$9,011	\$9,011	3.50%	\$26	\$9,037
2	DEC	9,037	0	0	9,037	9,037	3.50%	26	9,063
3	JAN 2017	9,063	0	0	9,063	9,063	3.75%	28	9,091
4	FEB	9,091	0	0	9,091	9,091	3.75%	28	9,119
5	MAR	9,119	0	0	9,119	9,119	3.75%	28	9,147
6	APR	9,147	0	0	9,147	9,147	3.75%	29	9,176
7	MAY	9,176	(36,014)	0	(26,838)	(8,831)	3.75%	(28)	(26,866)
8	JUN	(26,866)	(15,521)	0	(42,387)	(34,626)	3.75%	(108)	(42,495)
9	JUL	(42,495)	(11,091)	0	(53,586)	(48,040)	3.75%	(150)	(53,736)
10	AUG	(53,736)	8,272	0	(45,464)	(49,600)	3.75%	(155)	(45,619)
11	SEP	(45,619)	13,385	0	(32,234)	(38,926)	3.75%	(122)	(32,356)
12	OCT	(32,356)	32,242	0	(114)	(16,235)	3.75%	(51)	(165)
13									
14								<u>(\$449)</u>	

15 PRIOR PERIOD BEG. BALANCE w/INTEREST @ MAY 1, 2016 =

16 PRIOR PERIOD BEG. BAL. @ NOV 1, 2015 + INTEREST AMOUNT FOR NOV 2015 - APR 2016:

17 = COL. 1, LINE 1

+ COL. 7, LINES 1 TO 6

18 = 9,011

+

165

=

9,176

@ MAY 1, 2017

(TRANSFER TO SCHEDULE B, LINE 13)

(UNLESS ADJUSTMENTS UNDER COLUMN 2 LINES 1-6)

LIBERTY UTILITIES - KEENE DIVISION Weather Normalization - Firm Sendout													
Period	Actual Firm Sendout	Base Use	Heat Use	Actual Calendar Month Degree Days	Normal Calendar Month Degree Days	Colder (Warmer) Than Normal	Actual Unit Heat Load Therm/DD	Weather Adjustment	Normal Heat Load	Normalized Firm Sendout	Actual Company Use	Unaccounted For 3.70%	Total Firm Sendout
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
			(1) - (2)			(4) - (5)	(3) / (4)	(6) X (7)	(3) + (8)	(1) - (3) + (9)		(10 - 11) * 3.70%	(10) - (11) +(12)
May-16	66,195	42,611	23,584	262	281	(19)	90.02	1,710	25,294	67,905	2,385	2,424	67,945
Jun-16	43,788	42,611	1,177	41	77	(36)	28.71	1,033	2,210	44,821	2,072	1,582	44,331
Jul-16	41,499	42,611	0	11	13	(2)	0.00	0	0	41,499	2,017	1,461	40,943
Aug-16	43,723	42,611	0	1	25	(24)	0.00	0	0	43,723	1,986	1,544	43,281
Sep-16	50,197	42,611	7,586	102	168	(66)	74.37	4,909	12,495	55,106	2,339	1,952	54,719
Oct-16	88,327	42,611	45,716	434	502	(68)	105.34	7,163	52,879	95,490	3,053	3,420	95,857
Total	333,729	255,666	78,063	851	1,066	(215)		14,815	92,878	348,544	13,852	12,384	347,076

SCHEDULE H

LIBERTY UTILITIES - KEENE DIVISION											
Weather Normalization - Sales Rate Residential											
Period	Billing Cycle Customers	Billing Cycle Sales	Base Load	Heating Load	Billing Cycle Monthly Actual Degree Days	Billing Cycle Monthly Normal Degree Days	Colder (Warmer) Than Normal	Actual Unit Heat Load Therm/DD	Weather Adjustment	Normal Heat Load	Normal Firm Billing Cycle Therms
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
				(1) - (2)			(4) - (5)	(3) / (4)	(6) X (7)	(3) + (8)	(1) - (3) + (9)
May-16	747	19,059	6,286	12,772	562	539	23	22.73	(523)	12,250	18,536
Jun-16	722	10,180	6,286	3,894	229	250	(21)	17.00	357	4,251	10,537
Jul-16	727	6,959	6,286	673	36	67	(31)	18.69	579	1,252	7,538
Aug-16	730	5,614	6,286	0	9	15	(6)	0.00	0	0	5,614
Sep-16	740	5,906	6,286	0	19	51	(32)	0.00	0	0	5,906
Oct-16	739	8,966	6,286	2,680	153	219	(66)	17.51	1,156	3,835	10,122
Total		56,683	37,718	20,018	1,008	1,141	(133)	11.80	1,569	21,588	58,253

LIBERTY UTILITIES - KEENE DIVISION											
Weather Normalization - Sales Rate Commercial											
Period	Billing Cycle Customers	Billing Cycle Sales	Base Load	Heating Load	Billing Cycle Monthly Actual Degree Days	Billing Cycle Monthly Normal Degree Days	Colder (Warmer) Than Normal	Actual Unit Heat Load Therm/DD	Weather Adjustment	Normal Heat Load	Normal Firm Billing Cycle Therms
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
				(1) - (2)			(4) - (5)	(3) / (4)	(6) X (7)	(3) + (8)	(1) - (3) + (9)
May-16	467	80,247	32,155	48,092	579	554	25	83.06	(2,077)	46,015	78,171
Jun-16	467	44,993	32,155	12,838	236	257	(21)	54.40	1,142	13,980	46,135
Jul-16	455	37,566	32,155	5,411	37	69	(32)	146.24	4,680	10,091	42,246
Aug-16	457	26,744	32,155	0	10	15	(5)	0.00	0	0	26,744
Sep-16	445	32,568	32,155	0	15	45	(30)	0.00	0	0	32,568
Oct-16	460	43,180	32,155	11,025	140	206	(66)	78.75	5,197	16,222	48,377
Total		265,298	192,931	77,365	1,017	1,146	(129)	69.32	8,943	86,308	274,241

Summary - Total Summer Season Billed Sales

	<u>Actual 2016</u>	<u>Normalized</u>
May	99,306	96,707
June	55,173	56,672
July	44,525	49,784
August	32,358	32,358
September	38,474	38,474
October	52,146	58,499
Total	321,981	332,494

LIBERTY UTILITIES - KEENE DIVISION
Typical Residential Heating Bill - Fixed Price Option Program
Forecasted 2017 Summer Period vs. Actual 2016 Summer Period

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	Winter Nov-Apr	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Summer May-Oct	Total Nov-Oct
12 MONTHS ENDED 10/2016															
Typical Usage - therms (1)	40	76	104	110	117	87	534	57	29	17	17	22	17	159	693
Residential Heating															
Customer Charge	\$9.00	\$9.00	\$9.00	\$9.00	\$9.00	\$9.00	\$54.00	\$9.00	\$9.00	\$9.00	\$9.00	\$9.00	\$9.00	\$54.00	\$108.00
Delivery Charge:															
Winter															
Summer															
First 80 therms @ \$1.1522	\$46.09	\$87.57	\$92.18	\$92.18	\$92.18	\$92.18	\$502.38	\$65.68	\$33.41	\$19.59	\$19.59	\$25.35	\$19.59	\$183.21	\$685.59
Next 120 therms @ \$0.9442	\$0.00	\$0.00	\$22.66	\$28.33	\$34.94	\$6.61	\$92.54	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$92.54
Over 200 therms @ \$0.7946	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Base Delivery Revenue Total	\$55.09	\$96.57	\$123.84	\$129.51	\$136.12	\$107.79	\$648.92	\$74.68	\$42.41	\$28.59	\$28.59	\$34.35	\$28.59	\$237.21	\$886.13
Deferred Revenue Surcharge Rate	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		
Deferred Revenue Surcharge Total	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
COG Rates	\$0.8988	\$0.8988	\$0.8988	\$0.8988	\$0.8988	\$0.8988	\$0.8988	\$0.4019	\$0.4019	\$0.4019	\$0.4019	\$0.4019	\$0.5024	\$0.4126	
Cost of Gas Total	\$35.95	\$68.31	\$93.48	\$98.87	\$105.16	\$78.20	\$479.97	\$22.91	\$11.66	\$6.83	\$6.83	\$8.84	\$8.54	\$65.61	\$545.58
Total Bill	\$91	\$165	\$217	\$228	\$241	\$186	\$1,129	\$98	\$54	\$35	\$35	\$43	\$37	\$303	\$1,432
12 MONTHS ENDED 10/2017															
Typical Usage - therms (1)	40	76	104	110	117	87	534	57	29	17	17	22	17	159	693
Residential Heating															
Customer Charge	\$9.00	\$9.00	\$9.00	\$9.00	\$9.00	\$9.00	\$54.00	\$9.00	\$9.00	\$9.00	\$9.00	\$9.00	\$9.00	\$54.00	\$108.00
Delivery Charge:															
Winter															
Summer															
First 80 therms @ \$1.1522	\$46.09	\$87.57	\$92.18	\$92.18	\$92.18	\$92.18	\$502.38	\$65.68	\$33.41	\$19.59	\$19.59	\$25.35	\$19.59	\$183.21	\$685.59
Next 120 therms @ \$0.9442	\$0.00	\$0.00	\$22.66	\$28.33	\$34.94	\$6.61	\$92.54	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$92.54
Over 200 therms @ \$0.7946	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Base Delivery Revenue Total	\$55.09	\$96.57	\$123.84	\$129.51	\$136.12	\$107.79	\$648.92	\$74.68	\$42.41	\$28.59	\$28.59	\$34.35	\$28.59	\$237.21	\$886.13
Seasonal Base Delivery Difference from previous year							\$0.00							\$0.00	\$0.00
Seasonal Percent Change from previous year							0.0%							0.0%	0.0%
Deferred Revenue Surcharge Rate	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		
Deferred Revenue Surcharge Total	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
COG Rates	\$1.5352	\$1.5352	\$1.5352	\$1.5352	\$1.5352	\$1.5352	\$1.5352	\$0.9645	\$0.9645	\$0.9645	\$0.9645	\$0.9645	\$0.9645	\$0.9646	
Cost of Gas Total	\$61.41	\$116.68	\$159.66	\$168.87	\$179.62	\$133.56	\$819.80	\$54.98	\$27.97	\$16.40	\$16.40	\$21.22	\$16.40	\$153.37	\$973.17
Seasonal COG Difference from previous year							\$339.83							\$87.76	\$427.59
Seasonal Percent Change from previous year							70.8%							133.8%	78.4%
Total Bill	\$117	\$213	\$284	\$298	\$316	\$241	\$1,469	\$130	\$70	\$45	\$45	\$56	\$45	\$391	\$1,859
Seasonal Total Bill Difference from previous year							\$339.83							\$87.76	\$427.59
Seasonal Percent Change from previous year							30.1%							29.0%	29.9%
Seasonal Percent Change resulting from Base Rates (inc. Def. Revenue Surch.)							0.0%							0.0%	0.0%
Seasonal Percent Change resulting from COG							30.1%							29.0%	29.9%

(1) Residential Heating Typical Usage: Single family detached home using gas for heat, hot water and cooking.

LIBERTY UTILITIES - KEENE DIVISION
Typical Residential Heating Bill - Non-Fixed Price Option Program
Forecasted 2017 Summer Period vs. Actual 2016 Summer Period

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	Winter Nov-Apr	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Summer May-Oct	Total Nov-Oct
12 MONTHS ENDED 10/2016															
Typical Usage - therms (1)	40	76	104	110	117	87	534	57	29	17	17	22	17	159	693
Residential Heating															
Customer Charge	\$9.00	\$9.00	\$9.00	\$9.00	\$9.00	\$9.00	\$54.00	\$9.00	\$9.00	\$9.00	\$9.00	\$9.00	\$9.00	\$54.00	\$108.00
Delivery Charge:															
Winter															
Summer															
First 80 therms @ \$1.1522	\$46.09	\$87.57	\$92.18	\$92.18	\$92.18	\$92.18	\$502.38	\$65.68	\$33.41	\$19.59	\$19.59	\$25.35	\$19.59	\$183.21	\$685.59
Next 120 therms @ \$0.9442	\$0.00	\$0.00	\$22.66	\$28.33	\$34.94	\$6.61	\$92.54	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$92.54
Over 200 therms @ \$0.7946	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Base Delivery Revenue Total	\$55.09	\$96.57	\$123.84	\$129.51	\$136.12	\$107.79	\$648.92	\$74.68	\$42.41	\$28.59	\$28.59	\$34.35	\$28.59	\$237.21	\$886.13
Deferred Revenue Surcharge Rate	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000
Deferred Revenue Surcharge Total	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
COG Rates	\$0.8788	\$0.8788	\$0.8196	\$0.6910	\$0.3912	\$0.5052	\$0.6609	\$0.4019	\$0.4019	\$0.4019	\$0.4019	\$0.4019	\$0.5024	\$0.4126	
Cost of Gas Total	\$35.15	\$66.79	\$85.24	\$76.01	\$45.77	\$43.95	\$352.91	\$22.91	\$11.66	\$6.83	\$6.83	\$8.84	\$8.54	\$65.61	\$418.52
Total Bill	\$90	\$163	\$209	\$206	\$182	\$152	\$1,002	\$98	\$54	\$35	\$35	\$43	\$37	\$303	\$1,305
12 MONTHS ENDED 10/2017															
Typical Usage - therms (1)	40	76	104	110	117	87	534	57	29	17	17	22	17	159	693
Residential Heating															
Customer Charge	\$9.00	\$9.00	\$9.00	\$9.00	\$9.00	\$9.00	\$54.00	\$9.00	\$9.00	\$9.00	\$9.00	\$9.00	\$9.00	\$54.00	\$108.00
Delivery Charge:															
Winter															
Summer															
First 80 therms @ \$1.1522	\$46.09	\$87.57	\$92.18	\$92.18	\$92.18	\$92.18	\$502.38	\$65.68	\$33.41	\$19.59	\$19.59	\$25.35	\$19.59	\$183.21	\$685.59
Next 120 therms @ \$0.9442	\$0.00	\$0.00	\$22.66	\$28.33	\$34.94	\$6.61	\$92.54	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$92.54
Over 200 therms @ \$0.7946	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Base Delivery Revenue Total	\$55.09	\$96.57	\$123.84	\$129.51	\$136.12	\$107.79	\$648.92	\$74.68	\$42.41	\$28.59	\$28.59	\$34.35	\$28.59	\$237.21	\$886.13
Seasonal Base Delivery Difference from previous year							\$0.00							\$0.00	\$0.00
Seasonal Percent Change from previous year							0.0%							0.0%	0.0%
Deferred Revenue Surcharge Rate	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000
Deferred Revenue Surcharge Total	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
COG Rates	\$1.5152	\$1.6165	\$1.7694	\$1.7694	\$1.2750	\$1.2750	\$1.5397	\$0.9645	\$0.9645	\$0.9645	\$0.9645	\$0.9645	\$0.9645	\$0.9646	
Cost of Gas Total	\$60.61	\$122.85	\$184.02	\$194.63	\$149.18	\$110.93	\$822.22	\$54.98	\$27.97	\$16.40	\$16.40	\$21.22	\$16.40	\$153.37	\$975.59
Seasonal COG Difference from previous year							\$469.31							\$87.76	\$557.07
Seasonal Percent Change from previous year							133.0%							133.8%	133.1%
Total Bill	\$116	\$219	\$308	\$324	\$285	\$219	\$1,471	\$130	\$70	\$45	\$45	\$56	\$45	\$391	\$1,862
Seasonal Total Bill Difference from previous year							\$469.31							\$87.76	\$557.07
Seasonal Percent Change from previous year							46.8%							29.0%	42.7%
Seasonal Percent Change resulting from Base Rates (inc. Def. Revenue Surch.)							0.0%							0.0%	0.0%
Seasonal Percent Change resulting from COG							46.8%							29.0%	42.7%

(1) Residential Heating Typical Usage: Single family detached home using gas for heat, hot water and cooking.

LIBERTY UTILITIES - KEENE DIVISION

BID PREMIUM FOR PRE-PURCHASED GALLONS - PRIOR YEAR

	Mt. Belvieu Price		Pipeline Rate		Broker + Supplier Fee		PERC		Trucking		Keene Div. Price	Contract Volumes	Keene Div. Cost	Fixed Basis Bid	Plan Price	Contract Volumes	Plan Cost	Cost Premium	Per Gallon Premium
Apr-16	\$0.5360	+	\$0.2165	+	\$0.0900	+	\$0.0040	+	\$0.0673	=	\$0.9137	145,000	\$132,492	\$0.302	\$0.8375	145,000	\$121,433	(\$11,059)	-\$0.0763
May-16	\$0.5721	+	\$0.2165	+	\$0.0900	+	\$0.0040	+	\$0.0673	=	\$0.9499	108,750	\$103,301	\$0.302	\$0.8736	108,750	\$95,006	(\$8,295)	-\$0.0763
Jun-16	\$0.5443	+	\$0.2165	+	\$0.0900	+	\$0.0040	+	\$0.0673	=	\$0.9220	108,750	\$100,273	\$0.302	\$0.8458	108,750	\$91,978	(\$8,295)	-\$0.0763
Jul-16	\$0.5388	+	\$0.2165	+	\$0.0900	+	\$0.0040	+	\$0.0673	=	\$0.9166	145,000	\$132,904	\$0.302	\$0.8403	145,000	\$121,845	(\$11,059)	-\$0.0763
Aug-16	\$0.5201	+	\$0.2165	+	\$0.0900	+	\$0.0040	+	\$0.0673	=	\$0.8979	108,750	\$97,645	\$0.302	\$0.8216	108,750	\$89,350	(\$8,295)	-\$0.0763
Sep-16	\$0.5486	+	\$0.2165	+	\$0.0900	+	\$0.0040	+	\$0.0673	=	\$0.9264	108,750	\$100,744	\$0.302	\$0.8501	108,750	\$92,450	(\$8,295)	-\$0.0763
Total												725,000	\$667,359			725,000	\$612,062	(\$55,297)	-\$0.0763

LIBERTY UTILITIES - KEENE DIVISION

COMPARISON OF CONTRACT COST TO HYPOTHETICAL SPOT COST
WINTER SEASON 2016-2017 TO DATE

Delivery Month	Contract Price (1)	Contract Volumes (2)	Contract Cost (3)	Average Spot Price (4)	Contract Volumes (5)	Hypothetical Spot Cost (6)	Incremental Cost / (Savings) of Plan (7)
			(1) x (2)			(4) x (5)	(3) - (6)
Nov-16	\$0.8290	95,000	\$78,755	\$0.8330	95,000	\$79,135	(\$380)
Dec-16	\$0.8394	145,000	\$121,709	\$1.0196	145,000	\$147,842	(\$26,133)
Jan-17	\$0.8494	170,000	\$144,404	\$1.0880	170,000	\$184,960	(\$40,556)
Feb-17	\$0.8509	140,000	\$119,123	\$1.0880	140,000	\$152,320	(\$33,198)
Total			\$463,991			\$564,257	(\$100,266)

-17.8%

LIBERTY UTILITIES - KEENE DIVISION
 PROPANE PURCHASING STABILIZATION PLAN
 PRE-PURCHASES AND DELIVERY SCHEDULE

Delivery Month	Pre-Purchases (Gallons)						
	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Total
Nov-17	15,069	11,302	11,302	15,069	11,302	11,302	75,346
Dec-17	23,000	17,250	17,250	23,000	17,250	17,250	115,000
Jan-18	26,966	20,224	20,224	26,966	20,224	20,224	134,828
Feb-18	22,207	16,655	16,655	22,207	16,655	16,655	111,034
Mar-18	17,448	13,086	13,086	17,448	13,086	13,086	87,240
Apr-18	10,310	7,733	7,733	10,310	7,733	7,733	51,552
Total	115,000	86,250	86,250	115,000	86,250	86,250	575,000
Monthly %	20.0%	15.0%	15.0%	20.0%	15.0%	15.0%	

The monthly allocation percentage for the pre-purchases is unchanged.