

LIBERTY UTILITIES - KEENE DIVISION
 CONVERSION OF GAS COSTS - GALLONS TO THERMS
 WINTER PERIOD 2018 - 2019

	(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>
GAS FROM INVENTORY	GALLONS	0.91502	1,353,178	1,238,185	\$1.2504	\$1.3665

LIBERTY UTILITIES - KEENE DIVISION

CALCULATION OF COST OF GAS RATE
SUPPLY / DEMAND BALANCE
WINTER PERIOD 2018 - 2019

	PRIOR	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	TOTAL
<u>SENDOUT (THERMS)</u>								
1	FIRM SENDOUT *	152,536	234,631	287,984	223,382	178,196	127,847	1,204,576
2	COMPANY USE	4,509	7,302	6,980	5,172	5,378	4,268	33,609
3	TOTAL SENDOUT	157,045	241,933	294,964	228,554	183,574	132,115	1,238,185
4	* UNACCTED FOR VOLS INCLUDED	4,789	7,367	9,042	7,014	5,595	4,014	37,821
<u>COSTS</u>								
5	SENDOUT FROM ABOVE	157,045	241,933	294,964	228,554	183,574	132,115	1,238,185
6	COST/THERM FROM SCHEDULE F	\$1.3240	\$1.3498	\$1.3603	\$1.3823	\$1.3903	\$1.4011	\$1.3665
7	FPO PREMIUM	(\$309)	(\$584)	(\$955)	(\$858)	(\$771)	(\$676)	(\$4,153)
8	TOTAL COSTS	\$207,614	\$325,984	\$400,296	\$315,064	\$254,447	\$184,432	\$1,687,837
<u>REVENUES</u>								
9	FIRM SALES (THERMS)	81,335	153,707	251,377	225,663	203,006	178,000	1,093,088
10	RATE/THERM PER TARIFF	\$1.4056	\$1.4056	\$1.4056	\$1.4056	\$1.4056	\$1.4056	\$1.4056
11	TOTAL REVENUES	\$114,327	\$216,056	\$353,345	\$317,200	\$285,352	\$250,203	\$1,536,483
12	(OVER)/UNDER COLLECTION	\$93,287	\$109,928	\$46,951	(\$2,136)	(\$30,905)	(\$65,771)	\$151,354
13	INTEREST FROM SCHEDULE H	(\$439)	(\$18)	\$309	\$404	\$336	\$136	\$728
14	<u>FINAL (OVER)/UNDER COLLECTION</u>	<u>(\$152,082)</u>	<u>\$92,848</u>	<u>\$109,910</u>	<u>\$47,260</u>	<u>(\$1,732)</u>	<u>(\$30,569)</u>	<u>(\$0)</u>
	TOTAL REVENUES INCLUDING FPO	\$114,636	\$216,640	\$354,300	\$318,058	\$286,123	\$250,879	

LIBERTY UTILITIES - KEENE DIVISION
CALCULATION OF PURCHASED GAS COSTS
WINTER PERIOD 2018 - 2019

LINE NO.		13%	20%	24%	18%	15%	11%	TOTAL
		Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	
1	TOTAL SENDOUT (GALLONS)	171,630	264,402	322,358	249,780	200,623	144,385	1,353,178
2	CHANGE TO ENDING INVENTORY BALANCE (GALLONS)	-	-	-	-	-	-	-
3	TOTAL REQUIRED PURCHASES (GALLONS)	171,630	264,402	322,358	249,780	200,623	144,385	1,353,178
4	PROPANE PURCHASE STABILIZATION PLAN DELIVERIES							
5	GALLONS	75,346	115,000	134,828	111,034	87,240	51,552	575,000
6	<u>RATES</u> - from Schedule D							
7	Contract Price	\$1.1766	\$1.1766	\$1.1766	\$1.1766	\$1.1766	\$1.1766	
8	Broker Fee	incl.	incl.	incl.	incl.	incl.	incl.	
9	Pipeline Fee	incl.	incl.	incl.	incl.	incl.	incl.	
10	PERC Fee	incl.	incl.	incl.	incl.	incl.	incl.	
11	Trucking Fee	incl.	incl.	incl.	incl.	incl.	incl.	
12	COST PER GALLON	\$1.1766	\$1.1766	\$1.1766	\$1.1766	\$1.1766	\$1.1766	\$1.1766
13	TOTAL COST - Propane Purchase Stabilization Plan Deliveries	\$88,652	\$135,309	\$158,639	\$130,643	\$102,647	\$60,656	\$676,546
14	AMHERST STORAGE PROPANE DELIVERIES							
15	GALLONS	-	65,572	98,359	65,572	21,857	5,355	256,716
16	<u>RATES</u> - from Schedule F							
17	WACOG Price	\$0.0000	\$0.9300	\$0.9300	\$0.9300	\$0.9300	\$0.9497	
18	Trucking Fee	\$0.0000	\$0.0595	\$0.0595	\$0.0595	\$0.0595	\$0.0595	
19	COST PER GALLON	\$0.0000	\$0.9895	\$0.9895	\$0.9895	\$0.9895	\$1.0092	
20	TOTAL COST - Amherst Storage Propane Deliveries	\$0	\$64,884	\$97,326	\$64,884	\$21,628	\$5,404	\$254,126
21	CNG DELIVERIES							
22								
23								
24								
25								
26								
27								
28								
29	SPOT PURCHASES							
30	GALLONS							
31	<u>RATES</u> - from Schedule E							
32	Mt. Belvieu Futures Price (09/06/18)	\$1.0342	\$1.0275	\$1.0200	\$1.0054	\$0.9350	\$0.8721	
33	Broker Fee	\$0.0100	\$0.0100	\$0.0100	\$0.0100	\$0.0100	\$0.0100	
34	Pipeline Fee	\$0.2265	\$0.2265	\$0.2265	\$0.2265	\$0.2265	\$0.2265	
35	PERC Fee	\$0.0045	\$0.0045	\$0.0045	\$0.0045	\$0.0045	\$0.0045	
36	Supplier Charge	\$0.0900	\$0.0900	\$0.0900	\$0.0900	\$0.0900	\$0.0900	
37	Trucking Fee	\$0.0870	\$0.0870	\$0.0870	\$0.0870	\$0.0870	\$0.0870	
38	COST PER GALLON	\$1.4521	\$1.4455	\$1.4380	\$1.4234	\$1.3530	\$1.2900	\$1.3954
39	TOTAL COST - Spot Purchases							
40	OTHER ITEMS							
41	Storage	\$0	\$0	\$0	\$0	\$0	\$0	\$0
42	Refund of Deferred Revenue Surcharge overcollection	\$0	\$0	\$0	\$0	\$0	\$0	\$0
43	TOTAL OTHER ITEMS	\$0	\$0	\$0	\$0	\$0	\$0	\$0
44	TOTAL							
45	GALLONS	171,630	264,402	322,358	249,780	200,623	144,385	1,353,178
46	THERMS	157,045	241,933	294,964	228,554	183,574	132,115	1,238,185
47	COST	\$231,163	\$328,110	\$401,878	\$317,230	\$255,695	\$185,755	\$1,719,831
48	COST PER GALLON	\$1.3469	\$1.2410	\$1.2467	\$1.2700	\$1.2745	\$1.2865	\$1.2710
49	COST PER THERM	\$1.4720	\$1.3562	\$1.3625	\$1.3880	\$1.3929	\$1.4060	\$1.3890

LIBERTY UTILITIES - KEENE DIVISION
 PROPANE PURCHASING STABILIZATION PLAN
 WINTER PERIOD 2018 - 2019

Line
 No.

No changes to volumes from last year

1	2 Delivery Month	3 Pre-Purchases (Gallons)						8 Total
		4 Apr-18	5 May-18	6 Jun-18	7 Jul-18	8 Aug-18	9 Sep-18	
10	Nov-18	15,069	11,302	11,302	15,069	11,302	11,302	75,346
	Dec-18	23,000	17,250	17,250	23,000	17,250	17,250	115,000
	Jan-19	26,966	20,224	20,224	26,966	20,224	20,224	134,828
	Feb-19	22,207	16,655	16,655	22,207	16,655	16,655	111,034
	Mar-19	17,448	13,086	13,086	17,448	13,086	13,086	87,240
	Apr-19	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
	<i>Monthly %</i>	<i>20.0%</i>	<i>15.0%</i>	<i>15.0%</i>	<i>20.0%</i>	<i>15.0%</i>	<i>15.0%</i>	

11	Delivery Price per Gallon	\$1.2024	\$1.2038	\$1.2015	\$1.1848	\$1.1281	\$1.0776	
12	Total Cost	\$90,594	\$138,431	\$161,996	\$131,554	\$98,412	\$55,551	\$676,538
13	Weighted Average Winter Contract Price per gallon							\$1.1766
14	Weighted Average Winter Contract Price per therm							\$1.2859

LIBERTY UTILITIES - KEENE DIVISION
 PROPANE SPOT MARKET PURCHASE COST ANALYSIS
 WINTER PERIOD 2018 - 2019

		(1) Mt. Belvieu		(2) Broker Fee		(3) Pipeline Rate		(4) PERC Fee		(5) Supplier Charge		(6) Cost @ Selkirk		(7) Trucking to Keene		(8) \$ per Gal.		(9) \$ per Therm
1	NOV	1.0342	+	0.0100	+	0.2265	+	0.0045	+	0.0900	=	1.3651	+	0.0870	=	1.4521	=	1.5870
2	DEC	1.0275	+	0.0100	+	0.2265	+	0.0045	+	0.0900	=	1.3585	+	0.0870	=	1.4455	=	1.5797
3	JAN	1.0200	+	0.0100	+	0.2265	+	0.0045	+	0.0900	=	1.3510	+	0.0870	=	1.4380	=	1.5715
4	FEB	1.0054	+	0.0100	+	0.2265	+	0.0045	+	0.0900	=	1.3364	+	0.0870	=	1.4234	=	1.5556
5	MAR	0.9350	+	0.0100	+	0.2265	+	0.0045	+	0.0900	=	1.2660	+	0.0870	=	1.3530	=	1.4786
6	APR	0.8721	+	0.0100	+	0.2265	+	0.0045	+	0.0900	=	1.2030	+	0.0870	=	1.2900	=	1.4099

1. Propane futures market quotations (cmegroup.com) on 9/6/18 close. See Appendix 1.
2. A generally accepted standard broker fee
3. Pipeline rate from Mt.Belvieu to Selkirk
4. Propane Education Research Council (propanecouncil.org)
5. A generally accepted standard supplier charge
6. Selkirk Cost - all fees plus propane cost
7. Northern Gas Transport trucking rate including diesel fuel surcharge. See Appendix 3A & 3B.
8. Delivered Price per Gallon
9. Delivered Price per therm as converted using per gallon price / .91502

LIBERTY UTILITIES - KEENE DIVISION

INVENTORY & WEIGHTED AVERAGE COST OF GAS CALCULATION
WINTER PERIOD 2018 - 2019

AMHERST STORAGE INVENTORY 256,734 GALLONS

LINE NO.						AMHERST STORAGE INVENTORY					256,734 GALLONS					
			<u>Rate</u>					<u>Rate</u>					<u>Rate</u>			
	<u>Therms</u>	<u>Cost</u>	<u>Therm</u>	<u>Gal.</u>		<u>Therms</u>	<u>Cost</u>	<u>Therm</u>	<u>Gal.</u>		<u>Therms</u>	<u>Cost</u>	<u>Therm</u>	<u>Gal.</u>		
1	August 2018 (Actual)					August 2018 (Actual)										
2	Beginning Balance	28,969	\$35,173	\$1.2142	\$1.1110	Beginning Balance	0	\$0	-	-						
3	Purchases Received	65,000	\$59,735	\$0.9190	\$0.8409	Purchases Received	234,917	\$238,769	\$1.0164	\$0.9300						
4	Total Available	93,969	\$94,908	\$1.0100	\$0.9242	Total Available	234,917	\$238,769	\$1.0164	\$0.9300						
5	Less Sendout	43,723	\$44,160	\$1.0100	\$0.9242	Less Sendout	0	\$0	\$0.0000	\$0.0000						
6	Ending Balance	50,246	\$50,748	\$1.0100	\$0.9242	Ending Balance	234,917	\$238,769	\$1.0164	\$0.9300						
7	September 2018 (Estimated)					September 2018 (Estimated)										
8	Beginning Balance	50,246	\$50,748	\$1.0100	\$0.9242	Beginning Balance	234,917	\$238,769	\$1.0164	\$0.9300						
9	Purchases Received	65,000	\$59,735	\$0.9190	\$0.8409	Purchases Received	0	\$0	\$0.0000	\$0.0000						
10	Total Available	115,246	\$110,483	\$0.9587	\$0.8772	Total Available	234,917	\$238,769	\$1.0164	\$0.9300						
11	Less Sendout	55,106	\$52,829	\$0.9587	\$0.8772	Less Sendout	0	\$0	\$0.0000	\$0.0000						
12	Ending Balance	60,140	\$57,654	\$0.9587	\$0.8772	Ending Balance	234,917	\$238,769	\$1.0164	\$0.9300						
13	October 2018 (Estimated)					October 2018 (Estimated)										
14	Beginning Balance	60,140	\$57,654	\$0.9587	\$0.8772	Beginning Balance	234,917	\$238,769	\$1.0164	\$0.9300						
15	Purchases Received	95,000	\$87,305	\$0.9190	\$0.8409	Purchases Received	0	\$0	\$0.0000	\$0.0000						
16	Total Available	155,140	\$144,959	\$0.9344	\$0.8550	Total Available	234,917	\$238,769	\$1.0164	\$0.9300						
17	Less Sendout	95,490	\$89,224	\$0.9344	\$0.8550	Less Sendout	0	\$0	\$0.0000	\$0.0000						
18	Ending Balance	59,650	\$55,735	\$0.9344	\$0.8550	Ending Balance	234,917	\$238,769	\$1.0164	\$0.9300						
19	November 2018 (Forecasted)					November 2018 (Forecasted)										
20	Beginning Balance	59,650	\$55,735	\$0.9344	\$0.8550	Beginning Balance	234,917	\$238,769	\$1.0164	\$0.9300						
21	Purchases Received	157,045	\$231,163	\$1.4720	\$1.3469	Purchases Received	0	\$0	\$0.0000	\$0.0000						
22	Total Available	216,695	\$286,898	\$1.3240	\$1.2115	Total Available	234,917	\$238,769	\$1.0164	\$0.9300						
23	Less Sendout	157,045	\$207,923	\$1.3240	\$1.2115	Less Sendout	0	\$0	\$0.0000	\$0.0000						
24	Ending Balance	59,650	\$78,975	\$1.3240	\$1.2115	Ending Balance	234,917	\$238,769	\$1.0164	\$0.9300						
25	December 2018 (Forecasted)					December 2018 (Forecasted)										
26	Beginning Balance	59,650	\$78,975	\$1.3240	\$1.2115	Beginning Balance	234,917	\$238,769	\$1.0164	\$0.9300						
27	Purchases Received	241,933	\$328,110	\$1.3562	\$1.2410	Purchases Received	0	\$0	\$0.0000	\$0.0000						
28	Total Available	301,583	\$407,085	\$1.3498	\$1.2351	Total Available	234,917	\$238,769	\$1.0164	\$0.9300						
29	Less Sendout	241,933	\$326,568	\$1.3498	\$1.2351	Less Sendout	60,000	\$60,984	\$1.0164	\$0.9300	60,000	\$60,984				
30	Ending Balance	59,650	\$80,517	\$1.3498	\$1.2351	Ending Balance	174,917	\$177,785	\$1.0164	\$0.9300						
31	January 2019 (Forecasted)					January 2019 (Forecasted)										
32	Beginning Balance	59,650	\$80,517	\$1.3498	\$1.2351	Beginning Balance	174,917	\$177,785	\$1.0164	\$0.9300						
33	Purchases Received	294,964	\$401,878	\$1.3625	\$1.2467	Purchases Received	0	\$0	\$0.0000	\$0.0000						
34	Total Available	354,614	\$482,395	\$1.3603	\$1.2447	Total Available	174,917	\$177,785	\$1.0164	\$0.9300						
35	Less Sendout	294,964	\$401,251	\$1.3603	\$1.2447	Less Sendout	90,000	\$91,476	\$1.0164	\$0.9300	90,000	\$91,476				
36	Ending Balance	59,650	\$81,144	\$1.3603	\$1.2447	Ending Balance	84,917	\$86,309	\$1.0164	\$0.9300						
37	February 2019 (Forecasted)					February 2019 (Forecasted)										
38	Beginning Balance	59,650	\$81,144	\$1.3603	\$1.2447	Beginning Balance	84,917	\$86,309	\$1.0164	\$0.9300						
39	Purchases Received	228,554	\$317,230	\$1.3880	\$1.2700	Purchases Received	0	\$0	\$0.0000	\$0.0000						
40	Total Available	288,204	\$398,374	\$1.3823	\$1.2648	Total Available	84,917	\$86,309	\$1.0164	\$0.9300						
41	Less Sendout	228,554	\$315,922	\$1.3823	\$1.2648	Less Sendout	60,000	\$60,984	\$1.0164	\$0.9300	60,000	\$60,984				
42	Ending Balance	59,650	\$82,452	\$1.3823	\$1.2648	Ending Balance	24,917	\$25,325	\$1.0164	\$0.9300						
43	March 2019 (Forecasted)					March 2019 (Forecasted)										
44	Beginning Balance	59,650	\$82,452	\$1.3823	\$1.2648	Beginning Balance	24,917	\$25,325	\$1.0164	\$0.9300						
45	Purchases Received	183,574	\$255,695	\$1.3929	\$1.2745	Purchases Received	0	\$0	\$0.0000	\$0.0000						
46	Total Available	243,224	\$338,147	\$1.3903	\$1.2721	Total Available	24,917	\$25,325	\$1.0164	\$0.9300						
47	Less Sendout	183,574	\$255,218	\$1.3903	\$1.2721	Less Sendout	20,000	\$20,328	\$1.0164	\$0.9300	20,000	\$20,328				
48	Ending Balance	59,650	\$82,929	\$1.3903	\$1.2721	Ending Balance	4,917	\$4,997	\$1.0164	\$0.9300						
49	April 2019 (Forecasted)					April 2019 (Forecasted)										
50	Beginning Balance	59,650	\$82,929	\$1.3903	\$1.2721	Beginning Balance	4,917	\$4,997	\$1.0164	\$0.9300						
51	Purchases Received	132,115	\$185,755	\$1.4060	\$1.2865	Purchases Received	0	\$0	\$0.0000	\$0.0000						
52	Total Available	191,765	\$268,684	\$1.4011	\$1.2820	Total Available	4,917	\$4,997	\$1.0164	\$0.9300						
53	Less Sendout	132,115	\$185,108	\$1.4011	\$1.2820	Less Sendout	4,900	\$4,980	\$0.0000	\$0.0000	4,900	\$4,980				
54	Ending Balance	59,650	\$83,576	\$1.4011	\$1.2820	Ending Balance	17	\$17	\$1.0379	\$0.9497						
55	AVERAGE WINTER RATE - SENDOUT					\$1.3665	1,238,185	\$1,691,990	AVERAGE WINTER RATE - SENDOUT					\$1.0164	234,900	\$238,752
56						FPO Premium (Sch. B, Line 7)					(\$4,153)					
57						Total Cost - Sendout (Sch. B, Line 8)					\$1,687,837					

L BERTY UTILITIES - KEENE DIVISION

PRIOR PERIOD (OVER)/UNDER COLLECTION
WINTER PERIOD 2017- 2018

	<u>PRIOR</u>	<u>NOV-17</u>	<u>DEC-17</u>	<u>JAN-18</u>	<u>FEB-18</u>	<u>MAR-18</u>	<u>APR-18</u>	<u>TOTAL</u>
<u>COSTS</u>								
1 FIRM SENDOUT (therms)		147,747	248,770	269,861	187,464	188,289	136,889	1,179,020
2 COMPANY USE (therms)		4,509	7,302	6,980	5,172	5,378	4,268	33,609
3 TOTAL SENDOUT (therms)		152,256	256,072	276,841	192,636	193,667	141,157	1,212,629
4 COST PER THERM (WACOG)		\$1.0888	\$1.1522	\$1.3101	\$1.2876	\$1.0207	\$1.0779	\$6.9373
5 UNBILLED PROPANE COSTS (NET)		\$ (167,064)	\$ (105,456)	\$ 53,238	\$ 37,526	\$ (58,350)	\$ 69,018	\$ (171,088)
6 PROPANE COST ADJUSTMENT		\$ -	\$ 21,272	\$ (36,557)	\$ 22,828	\$ 39,510	\$ 15,378	\$ 62,431
7 CNG DEMAND CHARGES		\$ 52,083	\$ 10,417	\$ 10,417	\$ 10,417	\$ 10,417	\$ 10,417	\$ 104,167
8 REMOVAL OF CNG DEMAND CHARGES **		\$ (52,083)	\$ (10,417)	\$ (10,417)	\$ (10,417)	\$ (10,417)	\$ (10,417)	\$ (104,167)
9 ACCOUNTING ADJUSTMENT		\$ (168,179)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (168,179)
10 TOTAL PROPANE COSTS		\$ (169,462)	\$ 210,858	\$ 379,384	\$ 308,387	\$ 178,833	\$ 236,543	\$ 1,144,543
<u>REVENUES</u>								
11 FPO SALES (therms)		14,368	32,378	55,196	44,619	35,547	39,275	221,383
12 NON-FPO SALES (therms)		52,707	125,637	220,356	176,789	147,272	155,203	877,964
13 TOTAL SALES		67,075	158,015	275,552	221,408	182,819	194,478	1,099,347
14 FPO RATE PER THERM		\$1.2408	\$1.2408	\$1.2408	\$1.2408	\$1.2408	\$1.2408	\$1.2408
15 NON-FPO RATE PER THERM		\$1.2533	\$1.2533	\$1.3008	\$1.5666	\$1.5666	\$1.5221	\$1.4053
16 FPO REVENUES		\$17,828	\$40,175	\$68,487	\$55,363	\$44,107	\$48,732	\$274,692
17 NON-FPO REVENUES		\$66,058	\$157,461	\$286,608	\$256,755	\$230,717	\$236,239	\$1,233,838
18 TOTAL REVENUES		\$83,886	\$197,635	\$355,096	\$312,119	\$274,824	\$284,971	\$1,508,530
19 (OVER)/UNDER COLLECTION		(\$253,348)	\$13,222	\$24,288	(\$3,731)	(\$95,991)	(\$48,428)	(\$363,987)
20 INTEREST AMOUNT		\$398	\$92	\$198	\$247	\$140	(\$74)	\$1,000
21 TOTAL (OVER)/UNDER COLLECTION	\$214,590	(\$252,950)	\$13,315	\$24,486	(\$3,485)	(\$95,851)	(\$48,502)	(\$148,397)

LIBERTY UTILITIES - KEENE DIVISION

INTEREST CALCULATION
WINTER PERIOD 2018 - 2019

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	MAY 2018	(148,397)	\$0	\$0	(\$148,397)	(\$148,397)	4.75%	(\$587)	(\$148,984)
2	JUN	(148,984)	0	0	(148,984)	(148,984)	4.75%	(590)	(149,574)
3	JUL	(149,574)	0	0	(149,574)	(149,574)	5.00%	(623)	(150,197)
4	AUG	(150,197)	0	0	(150,197)	(150,197)	5.00%	(626)	(150,823)
5	SEP	(150,823)	0	0	(150,823)	(150,823)	5.00%	(628)	(151,451)
6	OCT	(151,451)	0	0	(151,451)	(151,451)	5.00%	(631)	(152,082)
7	NOV	(152,082)	93,287	0	(58,795)	(105,439)	5.00%	(439)	(59,234)
8	DEC	(59,234)	109,928	0	50,694	(4,270)	5.00%	(18)	50,676
9	JAN 2019	50,676	46,951	0	97,627	74,151	5.00%	309	97,936
10	FEB	97,936	(2,136)	0	95,800	96,868	5.00%	404	96,204
11	MAR	96,204	(30,905)	0	65,299	80,751	5.00%	336	65,635
12	APR	65,635	(65,771)	0	(136)	32,749	5.00%	136	(0)
13									
14								<u>(\$2,957)</u>	

15 PRIOR PERIOD BEG. BALANCE w/INTEREST @ NOVEMBER 1, 2018 =

16 PRIOR PERIOD BEG. BAL. @ MAY 1, 2018 + INTEREST AMOUNT FOR MAY 2018 - OCTOBER 2018

17 = COL. 1, LINE 1 + COL. 7, LINES 1 TO 6

18 = (148,397) + (3,685) = (152,082) @ NOVEMBER 1, 2018
(TRANSFER TO SCHEDULE B, LINE 14)

Liberty Utilities - Keene Division													
Weather Normalization - Firm Sendout (Therms)													
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 3.24%	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) * 3.24%	(10) - (11) + (12)
Nov-17	152,256	45,637	106,619	801	801	0	133.11	0	106,619	152,256	4,509	4,789	152,536
Dec-17	256,072	45,637	210,435	1,321	1,186	135	159.30	(21,505)	188,929	234,567	7,302	7,367	234,631
Jan-18	276,841	45,637	231,204	1,324	1,376	(52)	174.63	9,081	240,285	285,922	6,980	9,042	287,984
Feb-18	192,636	45,637	146,998	951	1,138	(187)	154.57	28,905	175,903	221,541	5,172	7,014	223,382
Mar-18	193,667	45,637	148,030	1,104	987	117	134.08	(15,688)	132,342	177,979	5,378	5,595	178,196
Apr-18	141,157	45,637	95,520	695	600	95	137.44	(13,057)	82,464	128,101	4,268	4,014	127,847
Total	1,212,628	273,822	938,806	6,196	6,088	108		(12,265)	926,541	1,200,364	33,609	37,821	1,204,576

Liberty Utilities - Keene Division Weather Normalization - Sales (Therms) - 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)
Nov-17	739	12,800	6,540	6,260	360	546	(186)	17.39	3,234	9,494	16,034
Dec-17	756	33,003	6,540	26,463	877	842	35	30.17	(1,056)	25,407	31,947
Jan-18	770	61,082	6,540	54,542	1,322	1,191	131	41.26	(5,405)	49,137	55,677
Feb-18	769	43,457	6,540	36,917	1,249	1,286	(37)	29.56	1,094	38,011	44,551
Mar-18	765	36,656	6,540	30,116	978	1,110	(132)	30.79	4,065	34,181	40,721
Apr-18	770	40,119	6,540	33,579	1,037	924	113	32.38	(3,659)	29,920	36,460
Total		227,117	39,240	187,877	5,823	5,899	(76)	(22.73)	(1,727)	186,150	225,390

Liberty Utilities - Keene Division Weather Normalization - Sales (Therms) - 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) - (3)			(4) - (5)	(3) / (4)	(6) X (7)	(3) + (8)	(1) - (3) + (9)
Nov-17	451	54,280	34,795	19,485	343	537	(194)	56.81	11,021	30,506	65,301
Dec-17	459	125,012	34,795	90,217	860	829	31	104.90	(3,252)	86,965	121,760
Jan-18	458	214,470	34,795	179,675	1,321	1,183	138	136.01	(18,770)	160,905	195,700
Feb-18	461	177,951	34,795	143,156	1,268	1,296	(28)	112.90	3,161	146,317	181,112
Mar-18	459	146,163	34,795	111,368	974	1,115	(141)	114.34	16,122	127,490	162,285
Apr-18	459	154,359	34,795	119,564	1,054	941	113	113.44	(12,819)	106,745	141,540
Total		872,235	208,770	663,465	5,820	5,901	(81)	(56.01)	(4,537)	658,928	867,698

Summary - Total Winter Season Billed Sales

	Actual 2017-2018	Normalized
November	67,080	81,335
December	158,015	153,707
January	275,552	251,377
February	221,408	225,663
March	182,819	203,006
April	194,478	178,000
Total	1,099,352	1,093,088

LIBERTY UTILITIES - KEENE DIVISION
Typical Residential Heating Bill - Fixed Price Option Program
Forecasted 2018-2019 Winter Period vs. Actual 2017-2018 Winter Period

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	Winter Nov-Apr	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Summer May-Oct	Total Nov-Oct
12 MONTHS ENDED 04/2018															
Typical Usage - therms (1)	34	70	67	93	103	58	425	38	14	9	8	7	12	88	513
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	\$39.17	\$80.65	\$77.20	\$92.18	\$92.18	\$66.83	\$448.21	\$43.78	\$16.13	\$10.37	\$9.22	\$8.07	\$13.83	\$101.40	\$549.61
Next 120 therms @ \$0.9442	\$0.00	\$0.00	\$0.00	\$12.27	\$21.72	\$0.00	\$33.99	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$33.99
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	\$48.17	\$89.65	\$86.20	\$113.45	\$122.90	\$75.83	\$536.20	\$52.78	\$25.13	\$19.37	\$18.22	\$17.07	\$22.83	\$155.40	\$691.60
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	\$1,240.8	\$1,240.8	\$1,240.8	\$1,240.8	\$1,240.8	\$1,240.8	\$1,240.8	\$0.6281	\$0.6281	\$0.6866	\$0.7766	\$0.7851	\$0.7851	\$0.6815	\$0.6815
Cost of Gas Total	\$42.19	\$86.86	\$83.13	\$115.39	\$127.80	\$71.97	\$527.34	\$23.87	\$8.79	\$6.18	\$6.21	\$5.50	\$9.42	\$59.97	\$587.31
Total Bill	\$90	\$177	\$169	\$229	\$251	\$148	\$1,064	\$77	\$34	\$26	\$24	\$23	\$32	\$215	\$1,279
12 MONTHS ENDED 04/2019															
Typical Usage - therms (1)	34	70	67	93	103	58	425	38	14	9	8	7	12	88	513
Residential Heating															
Customer Charge	\$15.02	\$15.02	\$15.02	\$15.02	\$15.02	\$15.02	\$90.12	\$15.02	\$15.02	\$15.02	\$15.02	\$15.02	\$15.02	\$90.12	\$180.24
Delivery Charge:															
All therms @ \$0.5631	\$19.15	\$39.42	\$37.73	\$52.37	\$58.00	\$32.66	\$239.33	\$21.40	\$7.88	\$5.07	\$4.50	\$3.94	\$6.76	\$49.55	\$288.88
Base Delivery Revenue Total	\$34.17	\$54.44	\$52.75	\$67.39	\$73.02	\$47.68	\$329.45	\$36.42	\$22.90	\$20.09	\$19.52	\$18.96	\$21.78	\$139.67	\$469.12
Seasonal Base Delivery Difference from previous year							-\$206.75							-\$15.73	-\$222.48
Seasonal Percent Change from previous year							-38.6%							-10.1%	-32.2%
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	\$1,425.6	\$1,425.6	\$1,425.6	\$1,425.6	\$1,425.6	\$1,425.6	\$1,425.6	\$0.9995	\$1.0765	\$0.9752	\$0.7462	\$0.7800	\$0.7800	\$0.9389	\$0.9389
Cost of Gas Total	\$48.47	\$99.79	\$95.52	\$132.58	\$146.84	\$82.68	\$605.88	\$37.98	\$15.07	\$8.78	\$5.97	\$5.46	\$9.36	\$82.62	\$688.50
LDAC Rates	\$0.0673	\$0.0673	\$0.0673	\$0.0673	\$0.0673	\$0.0673	\$0.3176	\$0.0945	\$0.0945	\$0.0945	\$0.0945	\$0.0945	\$0.0945	\$0.0945	\$0.0945
LDAC Total	\$2.29	\$4.71	\$4.51	\$6.26	\$6.94	\$3.91	\$28.62	\$3.59	\$1.32	\$0.85	\$0.76	\$0.66	\$1.13	\$8.31	\$36.93
Seasonal COG Difference from previous year							\$78.54							\$22.65	\$101.19
Seasonal Percent Change from previous year							14.9%							37.8%	17.2%
Total Bill	\$85	\$159	\$153	\$206	\$227	\$134	\$964	\$78	\$39	\$30	\$26	\$25	\$32	\$231	\$1,195
Seasonal Total Bill Difference from previous year							-\$99.59							\$15.23	-\$84.36
Seasonal Percent Change from previous year							-9.4%							7.1%	-6.6%
Seasonal Percent Change resulting from Base Rates (incl. Def. Revenue Surch.)							-19.4%							-7.3%	-17.4%
Seasonal Percent Change resulting from COG							7.4%							10.5%	7.9%
Seasonal Percent Change resulting from LDAC							2.7%							3.9%	2.9%

(1) Residential Heating Typical Usage: Residence using gas for heat, hot water and cooking.

LIBERTY UTILITIES - KEENE DIVISION
Typical Residential Heating Bill - Non-Fixed Price Option Program
Forecasted 2018-2019 Winter Period vs. Actual 2017-2018 Winter Period

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
12 MONTHS ENDED 04/2018	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	Winter Nov-Apr	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Summer May-Oct	Total Nov-Oct
Typical Usage - therms (1)	34	70	67	93	103	58	425	38	14	9	8	7	12	88	513
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:															
First 80 therms @ \$1.1522	\$39.17	\$80.65	\$77.20	\$92.18	\$92.18	\$66.83	\$448.21	\$43.78	\$16.13	\$10.37	\$9.22	\$8.07	\$13.83	\$101.40	\$549.61
Next 120 therms @ \$0.9442	\$0.00	\$0.00	\$0.00	\$12.27	\$21.72	\$0.00	\$33.99	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$33.99
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	\$48.17	\$89.65	\$86.20	\$113.45	\$122.90	\$75.83	\$536.20	\$52.78	\$25.13	\$19.37	\$18.22	\$17.07	\$22.83	\$155.40	\$691.60
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	\$1.2533	\$1.2533	\$1.3008	\$1.5666	\$1.5666	\$1.5221	\$1.4419	\$0.6281	\$0.6281	\$0.6866	\$0.7766	\$0.7851	\$0.7851	\$0.6815	
Cost of Gas Total	\$42.61	\$87.73	\$87.15	\$145.69	\$161.36	\$88.28	\$612.82	\$23.87	\$8.79	\$6.18	\$6.21	\$5.50	\$9.42	\$59.97	\$672.79
Total Bill	\$91	\$177	\$173	\$259	\$284	\$164	\$1,149	\$77	\$34	\$26	\$24	\$23	\$32	\$215	\$1,364
12 MONTHS ENDED 04/2019	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	Winter Nov-Apr	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Summer May-Oct	Total Nov-Oct
Typical Usage - therms (1)	34	70	67	93	103	58	425	38	14	9	8	7	12	88	513
Residential Heating															
Customer Charge	\$15.02	\$15.02	\$15.02	\$15.02	\$15.02	\$15.02	\$90.12	\$15.02	\$15.02	\$15.02	\$15.02	\$15.02	\$15.02	\$90.12	\$180.24
Delivery Charge:															
All therms @ \$0.5631	\$19.15	\$39.42	\$37.73	\$52.37	\$58.00	\$32.66	\$239.33	\$21.40	\$7.88	\$5.07	\$4.50	\$3.94	\$6.76	\$49.55	\$288.88
Base Delivery Revenue Total	\$34.17	\$54.44	\$52.75	\$67.39	\$73.02	\$47.68	\$329.45	\$36.42	\$22.90	\$20.09	\$19.52	\$18.96	\$21.78	\$139.67	\$469.12
Seasonal Base Delivery Difference from previous year							-\$206.75							-\$15.73	-\$222.48
Seasonal Percent Change from previous year							-38.6%							-10.1%	-32.2%
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	\$1.4056	\$1.4056	\$1.4056	\$1.4056	\$1.4056	\$1.4056	\$1.4056	\$0.9995	\$1.0765	\$0.9752	\$0.7462	\$0.7800	\$0.7800	\$0.9389	
Cost of Gas Total	\$47.79	\$98.39	\$94.18	\$130.72	\$144.78	\$81.52	\$597.38	\$37.98	\$15.07	\$8.78	\$5.97	\$5.46	\$9.36	\$82.62	\$680.00
LDAC Rates	\$0.0673	\$0.0673	\$0.0673	\$0.0673	\$0.0673	\$0.0673	\$0.3176	\$0.0945	\$0.0945	\$0.0945	\$0.0945	\$0.0945	\$0.0945	\$0.0945	
LDAC Total	\$2.29	\$4.71	\$4.51	\$6.26	\$6.94	\$3.91	\$28.62	\$3.59	\$1.32	\$0.85	\$0.76	\$0.66	\$1.13	\$8.31	\$36.93
Seasonal COG Difference from previous year							-\$15.44							\$22.65	\$7.21
Seasonal Percent Change from previous year							-2.5%							37.8%	1.1%
Total Bill	\$84	\$158	\$151	\$204	\$225	\$133	\$955	\$78	\$39	\$30	\$26	\$25	\$32	\$231	\$1,186
Seasonal Total Bill Difference from previous year							-\$193.57							\$15.23	-\$178.34
Seasonal Percent Change from previous year							-16.8%							7.1%	-13.1%
Seasonal Percent Change resulting from Base Rates (incl. Def. Revenue Surch.)							-18.0%							-7.3%	-16.3%
Seasonal Percent Change resulting from COG							-1.3%							10.5%	0.5%
Seasonal Percent Change resulting from LDAC							2.5%							3.9%	2.7%

(1) Residential Heating Typical Usage: Residence using gas for heat, hot water and cooking.

LIBERTY UTILITIES - KEENE DIVISION
Typical Commercial Bill - Fixed Price Option Program
Forecasted 2018-2019 Winter Period vs. Actual 2017-2018 Winter Period

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
12 MONTHS ENDED 04/2018	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	Winter Nov-Apr	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Summer May-Oct	Total Nov-Oct
Typical Usage - therms	64	120	158	251	245	132	970	91	28	14	10	9	20	172	1,142
Commercial G-41															
Customer Charge	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$108.00	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$108.00	\$216.00
Delivery Charge:															
Winter															
Summer															
First 80 therms @ \$1.1522	\$73.74	\$92.18	\$92.18	\$92.18	\$92.18	\$92.18	\$534.64	\$92.18	\$32.26	\$16.13	\$11.52	\$10.37	\$23.04	\$185.50	\$720.14
Next 120 therms @ \$0.9442	\$0.00	\$37.77	\$73.65	\$113.30	\$113.30	\$49.10	\$387.12	\$10.39	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$10.39	\$397.51
Over 200 therms @ \$0.7946	\$0.00	\$0.00	\$0.00	\$40.52	\$35.76	\$0.00	\$76.28	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$76.28
Base Delivery Revenue Total	\$91.74	\$147.95	\$183.83	\$264.00	\$259.24	\$159.28	\$1,106.04	\$120.57	\$50.26	\$34.13	\$29.52	\$28.37	\$41.04	\$303.89	\$1,409.93
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	\$1.2408	\$1.2408	\$1.2408	\$1.2408	\$1.2408	\$1.2408	\$1.2408	\$0.6281	\$0.6281	\$0.6866	\$0.7766	\$0.7851	\$0.7851	\$0.6680	
Cost of Gas Total	\$79.41	\$148.90	\$196.05	\$311.44	\$304.00	\$163.79	\$1,203.59	\$57.16	\$17.59	\$9.61	\$7.77	\$7.07	\$15.70	\$114.90	\$1,318.49
Total Bill	\$171	\$297	\$380	\$575	\$563	\$323	\$2,310	\$178	\$68	\$44	\$37	\$35	\$57	\$419	\$2,728
12 MONTHS ENDED 04/2019	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	Winter Nov-Apr	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Summer May-Oct	Total Nov-Oct
Typical Usage - therms	64	120	158	251	245	132	970	91	28	14	10	9	20	172	1,142
Commercial G-41															
Customer Charge	\$56.58	\$56.58	\$56.58	\$56.58	\$56.58	\$56.58	\$339.48	\$56.58	\$56.58	\$56.58	\$56.58	\$56.58	\$56.58	\$339.48	\$678.96
Delivery Charge:															
Winter															
Summer															
First 100 therms @ \$0.4639	\$29.69	\$46.39	\$46.39	\$46.39	\$46.39	\$46.39	\$261.64	\$42.21	\$12.99	\$6.49	\$4.64	\$4.18	\$9.28	\$79.79	\$341.43
Over 100 therms @ \$0.3116	\$0.00	\$6.23	\$18.07	\$31.16	\$31.16	\$9.97	\$96.59	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$96.59
Base Delivery Revenue Total	\$86.27	\$109.20	\$121.04	\$134.13	\$134.13	\$112.94	\$697.71	\$98.79	\$69.57	\$63.07	\$61.22	\$60.76	\$65.86	\$419.27	\$1,116.98
Seasonal Base Delivery Difference from previous year							-\$408.33							\$115.38	-\$292.95
Seasonal Percent Change from previous year							-36.9%							38.0%	-20.8%
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	\$1.4256	\$1.4256	\$1.4256	\$1.4256	\$1.4256	\$1.4256	\$1.4256	\$0.9995	\$1.0765	\$0.9752	\$0.7462	\$0.7800	\$0.7800	\$0.9583	
Cost of Gas Total	\$91.24	\$171.07	\$225.24	\$357.83	\$349.27	\$188.18	\$1,382.83	\$90.95	\$30.14	\$13.65	\$7.46	\$7.02	\$15.60	\$164.82	\$1,547.65
LDAC Rates	\$0.0772	\$0.0772	\$0.0772	\$0.0772	\$0.0772	\$0.0772	\$0.0772	\$0.0763	\$0.0763	\$0.0763	\$0.0763	\$0.0763	\$0.0763	\$0.0763	
LDAC Total	\$4.94	\$9.26	\$12.19	\$19.37	\$18.90	\$10.18	\$74.84	\$6.94	\$2.14	\$1.07	\$0.76	\$0.69	\$1.53	\$13.13	\$87.97
Seasonal COG Difference from previous year							\$179.24							\$49.92	\$229.16
Seasonal Percent Change from previous year							14.9%							43.4%	17.4%
Total Bill	\$182	\$290	\$358	\$511	\$502	\$311	\$2,155	\$197	\$102	\$78	\$69	\$68	\$83	\$597	\$2,753
Seasonal Total Bill Difference from previous year							-\$154.25							\$178.43	\$24.18
Seasonal Percent Change from previous year							-6.7%							42.6%	0.9%
Seasonal Percent Change resulting from Base Rates (incl. Def. Revenue Surch.)							-17.7%							27.6%	-10.7%
Seasonal Percent Change resulting from COG							7.8%							11.9%	8.4%
Seasonal Percent Change resulting from LDAC							3.2%							3.1%	3.2%

LIBERTY UTILITIES - KEENE DIVISION
Typical Commercial Bill - Non-Fixed Price Option Program
Forecasted 2018-2019 Winter Period vs. Actual 2017-2018 Winter Period

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
12 MONTHS ENDED 04/2018	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	Winter Nov-Apr	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Summer May-Oct	Total Nov-Oct
Typical Usage - therms	64	120	158	251	245	132	970	91	28	14	10	9	20	172	1,142
Commercial G-41															
Customer Charge	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$108.00	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$108.00	\$216.00
Delivery Charge:															
First 80 therms @ \$1.1522	\$73.74	\$92.18	\$92.18	\$92.18	\$92.18	\$92.18	\$534.64	\$92.18	\$32.26	\$16.13	\$11.52	\$10.37	\$23.04	\$185.50	\$720.14
Next 120 therms @ \$0.9442	\$0.00	\$37.77	\$73.65	\$113.30	\$113.30	\$49.10	\$387.12	\$10.39	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$10.39	\$397.51
Over 200 therms @ \$0.7946	\$0.00	\$0.00	\$0.00	\$40.52	\$35.76	\$0.00	\$76.28	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$76.28
Base Delivery Revenue Total	\$91.74	\$147.95	\$183.83	\$264.00	\$259.24	\$159.28	\$1,106.04	\$120.57	\$50.26	\$34.13	\$29.52	\$28.37	\$41.04	\$303.89	\$1,409.93
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	\$1.2533	\$1.2533	\$1.3008	\$1.5666	\$1.5666	\$1.5221	\$1.4578	\$0.6281	\$0.6281	\$0.6866	\$0.7766	\$0.7851	\$0.7851	\$0.6680	
Cost of Gas Total	\$80.21	\$150.40	\$205.53	\$393.22	\$383.82	\$200.92	\$1,414.10	\$57.16	\$17.59	\$9.61	\$7.77	\$7.07	\$15.70	\$114.90	\$1,529.00
Total Bill	\$172	\$298	\$389	\$657	\$643	\$360	\$2,520	\$178	\$68	\$44	\$37	\$35	\$57	\$419	\$2,939
12 MONTHS ENDED 04/2019	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	Winter Nov-Apr	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Summer May-Oct	Total Nov-Oct
Typical Usage - therms	64	120	158	251	245	132	970	91	28	14	10	9	20	172	1,142
Commercial G-41															
Customer Charge	\$56.58	\$56.58	\$56.58	\$56.58	\$56.58	\$56.58	\$339.48	\$56.58	\$56.58	\$56.58	\$56.58	\$56.58	\$56.58	\$339.48	\$678.96
Delivery Charge:															
First 100 therms @ \$0.4639	\$29.69	\$46.39	\$46.39	\$46.39	\$46.39	\$46.39	\$261.64	\$42.21	\$12.99	\$6.49	\$4.64	\$4.18	\$9.28	\$79.79	\$341.43
Over 100 therms @ \$0.3116	\$0.00	\$6.23	\$18.07	\$31.16	\$31.16	\$9.97	\$96.59	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$96.59
Base Delivery Revenue Total	\$86.27	\$109.20	\$121.04	\$134.13	\$134.13	\$112.94	\$697.71	\$98.79	\$69.57	\$63.07	\$61.22	\$60.76	\$65.86	\$419.27	\$1,116.98
Seasonal Base Delivery Difference from previous year							-\$408.33							\$115.38	-\$292.95
Seasonal Percent Change from previous year							-36.9%							38.0%	-20.8%
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	\$1.4056	\$1.4056	\$1.4056	\$1.4056	\$1.4056	\$1.4056	\$1.4056	\$0.9995	\$1.0765	\$0.9752	\$0.7462	\$0.7800	\$0.7800	\$0.9583	
Cost of Gas Total	\$89.96	\$168.67	\$222.08	\$352.81	\$344.37	\$185.54	\$1,363.43	\$90.95	\$30.14	\$13.65	\$7.46	\$7.02	\$15.60	\$164.82	\$1,528.25
LDAC Rates	\$0.0772	\$0.0772	\$0.0772	\$0.0772	\$0.0772	\$0.0772	\$0.0772	\$0.0763	\$0.0763	\$0.0763	\$0.0763	\$0.0763	\$0.0763	\$0.0763	\$0.0771
LDAC Total	\$4.94	\$9.26	\$12.20	\$19.38	\$18.91	\$10.19	\$74.88	\$6.94	\$2.14	\$1.07	\$0.76	\$0.69	\$1.53	\$13.13	\$88.01
Seasonal COG Difference from previous year							-\$50.67							\$49.92	-\$0.75
Seasonal Percent Change from previous year							-3.6%							43.4%	0.0%
Total Bill	\$181	\$287	\$355	\$506	\$497	\$309	\$2,136	\$197	\$102	\$78	\$69	\$68	\$83	\$597	\$2,733
Seasonal Total Bill Difference from previous year							-\$384.12							\$178.43	-\$205.69
Seasonal Percent Change from previous year							-15.2%							42.6%	-7.0%
Seasonal Percent Change resulting from Base Rates (incl. Def. Revenue Surch.)							-16.2%							27.6%	-10.0%
Seasonal Percent Change resulting from COG							-2.0%							11.9%	0.0%
Seasonal Percent Change resulting from LDAC							3.0%							3.1%	3.0%

LIBERTY UTILITIES - KEENE DIVISION									
Historical COG Comparison - FPO vs. Non-FPO Bill									
Winter Period	FPO Rate	Amount of Premium	Percent Participation (therms)	Actual FPO Volumes	Premium Revenue	Typical Residential FPO bill	Average Non-FPO Rate	Typical Residential Non-FPO bill	Cost/(Savings) to FPO Customers
2017-2018	\$1.2408	\$0.02	20.14%	221,383	\$4,428	\$527	\$1.4053	\$597	(\$70)
2016-2017	\$1.5352	\$0.02	19.32%	201,959	\$4,039	\$863	\$1.5247	\$900	(\$37)
2015-2016	\$0.8988	\$0.02	24.54%	224,981	\$4,500	\$480	\$0.6620	\$354	\$126
2014-2015	\$1.7269	\$0.02	32.16%	384,297	\$7,686	\$929	\$1.4213	\$765	\$164
2013-2014	\$1.6985	\$0.02	17.94%	206,379	\$4,128	\$914	\$2.0092	\$1,081	(\$167)
2012-2013	\$1.5217	\$0.02	20.81%	207,298	\$4,146	\$819	\$1.5002	\$807	\$12
2011-2012	\$2.2357	\$0.02	18.21%	152,560	\$3,051	\$1,203	\$2.1253	\$1,143	\$59
2010-2011	----- FPO not offered due to Selkirk terminal embargo -----								
2009-2010	\$1.3402	\$0.02	17.12%	163,486	\$3,270	\$721	\$1.4900	\$802	(\$81)
2008-2009	\$2.2408	\$0.02	21.08%	205,970	\$4,119	\$1,206	\$1.7347	\$933	\$272
2007-2008	\$1.5212	\$0.02	28.01%	266,419	\$5,328	\$818	\$1.7646	\$949	(\$131)
2006-2007	\$1.4741	\$0.02	21.86%	206,686	\$4,134	\$793	\$1.5397	\$828	(\$35)
2005-2006	\$1.5260	\$0.02	42.91%	348,849	\$6,977	\$821	\$1.3742	\$739	\$82
2004-2005	\$1.2323	n/a	39.44%	340,315	n/a	\$663	\$1.2647	\$680	(\$17)
2003-2004	\$0.8877	n/a	38.78%	316,300	n/a	\$478	\$1.0325	\$555	(\$78)
Average						\$802		\$795	\$7