PUBLIC DOCUMENT--TRADE SECRET DATA HAS BEEN EXCISED

Schedule L

MERC

Financial Hedging Report

July 1, 2018 through June 30, 2019

I. Futures

	Delivery period	Contracts	Average purchase price, $/MMBTU	Average sale price, $/MMBTU	Average gain (loss), $/MMBTU	Net realized gain (loss)
		[TRADE SECRET DATA BEGINS…				
	Nov-18	[redacted]				
	Dec-18					
	Jan-19					
	Feb-19					
	Mar-19					
Futures subtotal						

…TRADE SECRET DATA ENDS]

II. Options

Option type	delivery period	Strike price	Contracts	Premium Paid $	Sale Proceeds $	Average gain (loss), $/MMBTU	Net realized gain (loss)
	[TRADE SECRET DATA BEGINS…						
Call	Nov-18	[redacted]					
Call	Dec-18						
Call	Jan-19						
Call	Feb-19						
Call	Mar-19						
Options subtotal							
Futures and Options total							

…TRADE SECRET DATA ENDS]

		Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Total
	[TRADE SECRET DATA BEGINS…													
Total Realized gain (loss)		[redacted]												
NNG	Allocation %													
	Gain (Loss)													
Consolidated	Allocation %													
	Gain (Loss)													
Total Realized Gain (Loss)														

PGAC Hedging Rate Comparison: MERC NNG **Schedule O**

	No Hedge	*Hedge Plan*	*50% Futures*	*50% Options*
Jul-18	$6.7300	$6.7300	$6.7300	$6.7300
Aug-18	$6.7018	$6.7018	$6.7018	$6.7018
Sep-18	$6.7509	$6.7509	$6.7509	$6.7509
Oct-18	$6.9881	$6.9881	$6.9881	$6.9881
Nov-18	$7.5943	$7.5387	$7.4275	$7.5387
Dec-18	$8.9465	$8.2744	$7.3269	$8.0760
Jan-19	$8.0738	$7.9876	$7.4970	$8.1468
Feb-19	$7.3854	$7.4456	$7.5031	$7.4770
Mar-19	$7.1092	$7.1541	$7.1860	$7.1830
Apr-19	$7.1848	$7.1848	$7.1848	$7.1848
May-19	$6.7408	$6.7408	$6.7408	$6.7408
Jun-19	$6.7395	$6.7395	$6.7395	$6.7395
Average	**$7.2454**	**$7.1864**	**$7.0647**	**$7.1881**

PGAC Hedging Rate Comparison: MERC CONSOLIDATED

	No Hedge	*Hedge Plan*	*50% Futures*	*50% Options*
Jul-18	$6.1272	$6.1272	$6.1272	$6.1272
Aug-18	$6.2309	$6.2309	$6.2309	$6.2309
Sep-18	$6.2825	$6.2825	$6.2825	$6.2825
Oct-18	$6.3157	$6.3157	$6.3157	$6.3157
Nov-18	$6.6072	$6.5516	$6.4404	$6.5516
Dec-18	$8.1963	$7.5242	$6.5767	$7.3258
Jan-19	$7.0488	$6.9626	$6.4720	$7.1218
Feb-19	$6.4155	$6.4757	$6.5332	$6.5071
Mar-19	$6.3124	$6.3573	$6.3892	$6.3862
Apr-19	$6.0417	$6.0417	$6.0417	$6.0417
May-19	$5.8533	$5.8533	$5.8533	$5.8533
Jun-19	$5.8714	$5.8714	$5.8714	$5.8714
Average	**$6.4419**	**$6.3828**	**$6.2612**	**$6.3846**

Average Residential Volumes			
	NNG	Con	
Jul-18	1.7597	0.8417	
Aug-18	1.2590	0.7570	
Sep-18	1.8638	1.0118	
Oct-18	3.1241	3.6881	
Nov-18	7.6230	8.5511	
Dec-18	15.1213	13.2633	
Jan-19	12.9371	14.8972	
Feb-19	17.8320	18.4342	
Mar-19	15.6260	15.5445	
Apr-19	8.7201	10.2386	
May-19	6.0485	6.1137	
Jun-19	2.9863	2.8904	
Average	7.9084	8.0193	

Total Cost in Monthly PGA Filings w/ hedging			
	NNG	Con	
Jul-18	$ 11.84	$ 5.16	
Aug-18	$ 8.44	$ 4.72	
Sep-18	$ 12.58	$ 6.36	
Oct-18	$ 21.83	$ 23.29	
Nov-18	$ 57.47	$ 56.02	
Dec-18	$ 125.12	$ 99.80	
Jan-19	$ 103.34	$ 103.72	
Feb-19	$ 132.77	$ 119.37	
Mar-19	$ 111.79	$ 98.82	
Apr-19	$ 62.65	$ 61.86	
May-19	$ 40.77	$ 35.79	
Jun-19	$ 20.13	$ 16.97	
Average	$ 59.06	$ 52.66	

Total Cost in Monthly PGA Filings w/o hedging			
	NNG	Con	
Jul-18	$ 11.84	$ 5.16	
Aug-18	$ 8.44	$ 4.72	
Sep-18	$ 12.58	$ 6.36	
Oct-18	$ 21.83	$ 23.29	
Nov-18	$ 57.89	$ 56.50	
Dec-18	$ 135.28	$ 108.71	
Jan-19	$ 104.45	$ 105.01	
Feb-19	$ 131.70	$ 118.27	
Mar-19	$ 111.09	$ 98.12	
Apr-19	$ 62.65	$ 61.86	
May-19	$ 40.77	$ 35.79	
Jun-19	$ 20.13	$ 16.97	
Average	$ 59.89	$ 53.40	

Average Residential Volumes - 120%			
	NNG	Con	
Jul-18	2.1117	1.0100	
Aug-18	1.5108	0.9084	
Sep-18	2.2366	1.2141	
Oct-18	3.7489	4.4257	
Nov-18	9.1476	10.2613	
Dec-18	18.1456	15.9160	
Jan-19	15.5245	17.8766	
Feb-19	21.3984	22.1211	
Mar-19	18.7512	18.6534	
Apr-19	10.4641	12.2864	
May-19	7.2582	7.3364	
Jun-19	3.5836	3.4685	
Average	9.4901	9.6232	

Total Cost in Monthly PGA Filings w/ hedging - 120%			
	NNG	Con	
Jul-18	$ 14.21	$ 6.19	
Aug-18	$ 10.13	$ 5.66	
Sep-18	$ 15.10	$ 7.63	
Oct-18	$ 26.20	$ 27.95	
Nov-18	$ 68.96	$ 67.23	
Dec-18	$ 150.14	$ 119.76	
Jan-19	$ 124.00	$ 124.47	
Feb-19	$ 159.32	$ 143.25	
Mar-19	$ 134.15	$ 118.59	
Apr-19	$ 75.18	$ 74.23	
May-19	$ 48.93	$ 42.94	
Jun-19	$ 24.15	$ 20.36	
Average	$ 70.87	$ 63.19	

Total Cost in Monthly PGA Filings w/o hedging - 120%			
	NNG	Con	
Jul-18	$ 14.21	$ 6.19	
Aug-18	$ 10.13	$ 5.66	
Sep-18	$ 15.10	$ 7.63	
Oct-18	$ 26.20	$ 27.95	
Nov-18	$ 69.47	$ 67.80	
Dec-18	$ 162.34	$ 130.45	
Jan-19	$ 125.34	$ 126.01	
Feb-19	$ 158.04	$ 141.92	
Mar-19	$ 133.31	$ 117.75	
Apr-19	$ 75.18	$ 74.23	
May-19	$ 48.93	$ 42.94	
Jun-19	$ 24.15	$ 20.36	
Average	$ 71.87	$ 64.07	

Average Residential Volumes - 80%			
	NNG	Con	
Jul-18	1.4078	0.6733	
Aug-18	1.0072	0.6056	
Sep-18	1.4911	0.8094	
Oct-18	2.4993	2.9505	
Nov-18	6.0984	6.8408	
Dec-18	12.0971	10.6107	
Jan-19	10.3497	11.9177	
Feb-19	14.2656	14.7474	
Mar-19	12.5008	12.4356	
Apr-19	6.9761	8.1909	
May-19	4.8388	4.8909	
Jun-19	2.3891	2.3123	
Average	6.3267	6.4154	

Total Cost in Monthly PGA Filings w/ hedging - 80%			
	NNG	Con	
Jul-18	$ 9.47	$ 4.13	
Aug-18	$ 6.75	$ 3.77	
Sep-18	$ 10.07	$ 5.09	
Oct-18	$ 17.47	$ 18.63	
Nov-18	$ 45.97	$ 44.82	
Dec-18	$ 100.10	$ 79.84	
Jan-19	$ 82.67	$ 82.98	
Feb-19	$ 106.22	$ 95.50	
Mar-19	$ 89.43	$ 79.06	
Apr-19	$ 50.12	$ 49.49	
May-19	$ 32.62	$ 28.63	
Jun-19	$ 16.10	$ 13.58	
Average	$ 47.25	$ 42.13	

Total Cost in Monthly PGA Filings w/o hedging - 80%			
	NNG	Con	
Jul-18	$ 9.47	$ 4.13	
Aug-18	$ 6.75	$ 3.77	
Sep-18	$ 10.07	$ 5.09	
Oct-18	$ 17.47	$ 18.63	
Nov-18	$ 46.31	$ 45.20	
Dec-18	$ 108.23	$ 86.97	
Jan-19	$ 83.56	$ 84.01	
Feb-19	$ 105.36	$ 94.61	
Mar-19	$ 88.87	$ 78.50	
Apr-19	$ 50.12	$ 49.49	
May-19	$ 32.62	$ 28.63	
Jun-19	$ 16.10	$ 13.58	
Average	$ 47.91	$ 42.72	

Average Residential Volumes			
	NNG	Con	
Jul-18	1.7597	0.8417	
Aug-18	1.2590	0.7570	
Sep-18	1.8638	1.0118	
Oct-18	3.1241	3.6881	
Nov-18	7.6230	8.5511	
Dec-18	15.1213	13.2633	
Jan-19	12.9371	14.8972	
Feb-19	17.8320	18.4342	
Mar-19	15.6260	15.5445	
Apr-19	8.7201	10.2386	
May-19	6.0485	6.1137	
Jun-19	2.9863	2.8904	
Average	7.9084	8.0193	

Total Cost in Monthly PGA Filings w/ hedging at Catastrophic Prices			
	NNG	Con	
Jul-18	$ 11.84	$ 5.16	
Aug-18	$ 8.44	$ 4.72	
Sep-18	$ 12.58	$ 6.36	
Oct-18	$ 21.83	$ 23.29	
Nov-18	$ 47.43	$ 54.15	
Dec-18	$ 116.82	$ 96.43	
Jan-19	$ 94.99	$ 110.24	
Feb-19	$ 134.99	$ 135.86	
Mar-19	$ 124.86	$ 114.86	
Apr-19	$ 62.65	$ 61.86	
May-19	$ 40.77	$ 35.79	
Jun-19	$ 20.13	$ 16.97	
Average	$ 58.11	$ 55.47	

Total Cost in Monthly PGA Filings no hedging at Catastrophic Prices			
	NNG	Con	
Jul-18	$ 11.84	$ 5.16	
Aug-18	$ 8.44	$ 4.72	
Sep-18	$ 12.58	$ 6.36	
Oct-18	$ 21.83	$ 23.29	
Nov-18	$ 68.25	$ 68.10	
Dec-18	$ 147.98	$ 125.87	
Jan-19	$ 128.45	$ 141.58	
Feb-19	$ 153.19	$ 160.96	
Mar-19	$ 150.10	$ 134.59	
Apr-19	$ 62.65	$ 61.86	
May-19	$ 40.77	$ 35.79	
Jun-19	$ 20.13	$ 16.97	
Average	$ 68.85	$ 65.44	

Average Residential Volumes - 120%			
	NNG	Con	
Jul-18	2.11	1.01	
Aug-18	1.51	0.91	
Sep-18	2.24	1.21	
Oct-18	3.75	4.43	
Nov-18	9.15	10.26	
Dec-18	18.15	15.92	
Jan-19	15.52	17.88	
Feb-19	21.40	22.12	
Mar-19	18.75	18.65	
Apr-19	10.46	12.29	
May-19	7.26	7.34	
Jun-19	3.58	3.47	
Average	9.49	9.62	

Total Cost in Monthly PGA Filings w/ hedging at Catastrophic Prices			
	NNG	Con	
Jul-18	$ 14.21	$ 6.19	
Aug-18	$ 10.13	$ 5.66	
Sep-18	$ 15.10	$ 7.63	
Oct-18	$ 26.20	$ 27.95	
Nov-18	$ 56.91	$ 64.98	
Dec-18	$ 140.18	$ 115.72	
Jan-19	$ 113.99	$ 132.29	
Feb-19	$ 161.99	$ 163.03	
Mar-19	$ 149.83	$ 137.84	
Apr-19	$ 75.18	$ 74.23	
May-19	$ 48.93	$ 42.94	
Jun-19	$ 24.15	$ 20.36	
Average	$ 69.73	$ 66.57	

Total Cost in Monthly PGA Filings no hedging at Catastrophic Prices			
	NNG	Con	
Jul-18	$ 14.21	$ 6.19	
Aug-18	$ 10.13	$ 5.66	
Sep-18	$ 15.10	$ 7.63	
Oct-18	$ 26.20	$ 27.95	
Nov-18	$ 81.90	$ 81.72	
Dec-18	$ 177.58	$ 151.04	
Jan-19	$ 154.14	$ 169.90	
Feb-19	$ 183.83	$ 193.15	
Mar-19	$ 180.12	$ 161.51	
Apr-19	$ 75.18	$ 74.23	
May-19	$ 48.93	$ 42.94	
Jun-19	$ 24.15	$ 20.36	
Average	$ 82.62	$ 78.52	

Average Residential Volumes - 80%			
	NNG	Con	
Jul-18	1.41	0.67	
Aug-18	1.01	0.61	
Sep-18	1.49	0.81	
Oct-18	2.50	2.95	
Nov-18	6.10	6.84	
Dec-18	12.10	10.61	
Jan-19	10.35	11.92	
Feb-19	14.27	14.75	
Mar-19	12.50	12.44	
Apr-19	6.98	8.19	
May-19	4.84	4.89	
Jun-19	2.39	2.31	
Average	6.33	6.42	

Total Cost in Monthly PGA Filings w/ hedging at Catastrophic Prices			
	NNG	Con	
Jul-18	$ 9.47	$ 4.13	
Aug-18	$ 6.75	$ 3.77	
Sep-18	$ 10.07	$ 5.09	
Oct-18	$ 17.47	$ 18.63	
Nov-18	$ 37.94	$ 43.32	
Dec-18	$ 93.45	$ 77.15	
Jan-19	$ 75.99	$ 88.19	
Feb-19	$ 107.99	$ 108.69	
Mar-19	$ 99.89	$ 91.89	
Apr-19	$ 50.12	$ 49.49	
May-19	$ 32.62	$ 28.63	
Jun-19	$ 16.10	$ 13.58	
Average	$ 46.49	$ 44.38	

Total Cost in Monthly PGA Filings no hedging at Catastrophic Prices			
	NNG	Con	
Jul-18	$ 9.47	$ 4.13	
Aug-18	$ 6.75	$ 3.77	
Sep-18	$ 10.07	$ 5.09	
Oct-18	$ 17.47	$ 18.63	
Nov-18	$ 54.60	$ 54.48	
Dec-18	$ 118.38	$ 100.69	
Jan-19	$ 102.76	$ 113.27	
Feb-19	$ 122.55	$ 128.77	
Mar-19	$ 120.08	$ 107.67	
Apr-19	$ 50.12	$ 49.49	
May-19	$ 32.62	$ 28.63	
Jun-19	$ 16.10	$ 13.58	
Average	$ 55.08	$ 52.35	

WACOG Projection in Monthly PGA Filings w/ Hedging			Natural Log of Price Change		WACOG Projections in Monthly PGA Filings w/o Hedging		Natural Log of Price Change	
	NNG	CONS	NNG	CONS	NNG	CONS	NNG	CONS
Jun-18	$ 3.7250	$ 3.2707			$ 3.7250	$ 3.2707		
Jul-18	$ 2.3899	$ 2.6166	-0.4438	-0.2231	$ 2.3899	$ 2.6166	-0.4438	-0.2231
Aug-18	$ 2.3620	$ 2.7253	-0.0117	0.0407	$ 2.3620	$ 2.7253	-0.0117	0.0407
Sep-18	$ 2.4455	$ 2.6238	0.0347	-0.0380	$ 2.4455	$ 2.6238	0.0347	-0.0380
Oct-18	$ 2.2187	$ 2.6081	-0.0973	-0.0060	$ 2.2187	$ 2.6081	-0.0973	-0.0060
Nov-18	$ 2.4265	$ 2.4286	0.0895	-0.0713	$ 2.4821	$ 2.4842	0.1122	-0.0487
Dec-18	$ 2.5911	$ 2.1373	0.0656	-0.1278	$ 3.2632	$ 2.8094	0.2736	0.1230
Jan-19	$ 2.5356	$ 1.9352	-0.0217	-0.0993	$ 2.6218	$ 2.0214	-0.2189	-0.3292
Feb-19	$ 3.6277	$ 2.5172	0.3582	0.2629	$ 3.5675	$ 2.4570	0.3080	0.1952
Mar-19	$ 2.2905	$ 2.4410	-0.4598	-0.0307	$ 2.2456	$ 2.3961	-0.4629	-0.0251
Apr-19	$ 2.2376	$ 2.3237	-0.0234	-0.0492	$ 2.2376	$ 2.3237	-0.0036	-0.0307
May-19	$ 2.3354	$ 2.4780	0.0428	0.0643	$ 2.3354	$ 2.4780	0.0428	0.0643
Jun-19	$ 2.3230	$ 2.4704	-0.0053	-0.0031	$ 2.3230	$ 2.4704	-0.0053	-0.0031
		Annual Volatility	***73.77%***	***39.28%***			***79.72%***	***46.48%***
		Volatility Reduction Due to Hedging	**8.08%**	**18.34%**				

Definition:
The relative rate at which the price of a security moves up and down.

Equation:
Annual price volatility (v_a) is calculated as the standard deviation of ***monthly price changes times the square root of 12****.*
Where:
v_a = Standard Deviation ($c_{1 \text{ to } n}$) **x Square root of 12**
c_i = $\text{Ln}(p_i/p_{i-1})$ Ln = Natural Logarithm
p_i = Price for **month** i
Source: Options, Futures and Other Derivatives, John C. Hull, pages 232-234

WACOG Projection in Monthly PGA Filings w/ Hedging		
	NNG	Con.
Jul-18	$ 2.3899	$ 2.6166
Aug-18	$ 2.3620	$ 2.7253
Sep-18	$ 2.4455	$ 2.6238
Oct-18	$ 2.2187	$ 2.6081
Nov-18	$ 2.4265	$ 2.4286
Dec-18	$ 2.5911	$ 2.1373
Jan-19	$ 2.5356	$ 1.9352
Feb-19	$ 3.6277	$ 2.5172
Mar-19	$ 2.2905	$ 2.4410
Apr-19	$ 2.2376	$ 2.3237
May-19	$ 2.3354	$ 2.4780
Jun-19	$ 2.3230	$ 2.4704
Average	$ 2.4820	$ 2.4421

WACOG Projections in Monthly PGA Filings w/o Hedging		
	NNG	Con.
Jul-18	$ 2.3899	$ 2.6166
Aug-18	$ 2.3620	$ 2.7253
Sep-18	$ 2.4455	$ 2.6238
Oct-18	$ 2.2187	$ 2.6081
Nov-18	$ 2.4821	$ 2.4842
Dec-18	$ 3.2632	$ 2.8094
Jan-19	$ 2.6218	$ 2.0214
Feb-19	$ 3.5675	$ 2.4570
Mar-19	$ 2.2456	$ 2.3961
Apr-19	$ 2.2376	$ 2.3237
May-19	$ 2.3354	$ 2.4780
Jun-19	$ 2.3230	$ 2.4704
Average	$ 2.5410	$ 2.5012
	$ 0.0591	$ 0.0591

WACOG Projection in Monthly PGA		
	NNG	Con.
Jul-18	$ 2.3899	$ 2.6166
Aug-18	$ 2.3620	$ 2.7253
Sep-18	$ 2.4455	$ 2.6238
Oct-18	$ 2.2187	$ 2.6081
Nov-18	$ 2.4265	$ 2.4286
Dec-18	$ 2.5911	$ 2.1373
Jan-19	$ 2.5356	$ 1.9352
Feb-19	$ 3.6277	$ 2.5172
Mar-19	$ 2.2905	$ 2.4410
Apr-19	$ 2.2376	$ 2.3237
May-19	$ 2.3354	$ 2.4780
Jun-19	$ 2.3230	$ 2.4704
Average	$ 2.4820	$ 2.4421

WACOG Projection in Monthly PGA w/o Hedging				
	PGA Vol	Hedge Gain(Loss)	NNG	Con.
Jul-18	32,223,162	$ -	$ 2.3899	$ 2.6166
Aug-18	32,223,162	$ -	$ 2.3620	$ 2.7253
Sep-18	32,223,162	$ -	$ 2.4455	$ 2.6238
Oct-18	32,223,162	$ -	$ 2.2187	$ 2.6081
Nov-18	32,223,162	$ 149,310	$ 2.4821	$ 2.4842
Dec-18	32,223,162	$ 1,804,750	$ 3.2632	$ 2.8094
Jan-19	32,223,162	$ 231,340	$ 2.6218	$ 2.0214
Feb-19	32,223,162	$ (161,560)	$ 3.5675	$ 2.4570
Mar-19	32,223,162	$ (120,610)	$ 2.2456	$ 2.3961
Apr-19	32,223,162	$ -	$ 2.2376	$ 2.3237
May-19	32,223,162	$ -	$ 2.3354	$ 2.4780
Jun-19	32,223,162	$ -	$ 2.3230	$ 2.4704
total		$ 1,903,230		
Average			$ 2.5410	$ 2.5012
			$ 0.0591	$ 0.0591

Hedge Cost in Monthly PGA Filings		
	NNG	Con.
Jul-18	$ -	$ -
Aug-18	$ -	$ -
Sep-18	$ -	$ -
Oct-18	$ -	$ -
Nov-18	$ (0.0556)	$ (0.0556)
Dec-18	$ (0.6721)	$ (0.6721)
Jan-19	$ (0.0862)	$ (0.0862)
Feb-19	$ 0.0602	$ 0.0602
Mar-19	$ 0.0449	$ 0.0449
Apr-19	$ -	$ -
May-19	$ -	$ -
Jun-19	$ -	$ -
Average	$ (0.0591)	$ (0.0591)

Total Cost in Monthly PGA Filings w/ hedging		
	NNG	Con.
Jul-18	$ 6.7300	$ 6.1272
Aug-18	$ 6.7018	$ 6.2309
Sep-18	$ 6.7509	$ 6.2825
Oct-18	$ 6.9881	$ 6.3157
Nov-18	$ 7.5387	$ 6.5516
Dec-18	$ 8.2744	$ 7.5242
Jan-19	$ 7.9876	$ 6.9626
Feb-19	$ 7.4456	$ 6.4757
Mar-19	$ 7.1541	$ 6.3573
Apr-19	$ 7.1848	$ 6.0417
May-19	$ 6.7408	$ 5.8533
Jun-19	$ 6.7395	$ 5.8714
Average	$ 7.1864	$ 6.3828

Dist Margin & Demand Cost in Monthly PGA Filings w/ hedging		
	NNG	Con.
Jul-18	$ 4.3401	$ 3.5106
Aug-18	$ 4.3398	$ 3.5056
Sep-18	$ 4.3054	$ 3.6587
Oct-18	$ 4.7694	$ 3.7076
Nov-18	$ 5.1122	$ 4.1230
Dec-18	$ 5.6833	$ 5.3869
Jan-19	$ 5.4520	$ 5.0274
Feb-19	$ 3.8179	$ 3.9585
Mar-19	$ 4.8636	$ 3.9163
Apr-19	$ 4.9472	$ 3.7180
May-19	$ 4.4054	$ 3.3753
Jun-19	$ 4.4165	$ 3.4010
Average	$ 4.7044	$ 3.9407

Average Residential Volumes - Mcf		
	NNG	Con.
Jul-18	1.76	0.84
Aug-18	1.26	0.76
Sep-18	1.86	1.01
Oct-18	3.12	3.69
Nov-18	7.62	8.55
Dec-18	15.12	13.26
Jan-19	12.94	14.90
Feb-19	17.83	18.43
Mar-19	15.63	15.54
Apr-19	8.72	10.24
May-19	6.05	6.11
Jun-19	2.99	2.89
Average	7.91	8.02
Total	94.90	96.23

Average Residential Volumes - Therm		
	NNG	Con.
Jul-18	17.6	8.4
Aug-18	12.6	7.6
Sep-18	18.6	10.1
Oct-18	31.2	36.9
Nov-18	76.2	85.5
Dec-18	151.2	132.6
Jan-19	129.4	149.0
Feb-19	178.3	184.3
Mar-19	156.3	155.4
Apr-19	87.2	102.4
May-19	60.5	61.1
Jun-19	29.9	28.9
Average	79.1	80.2
	10	10
Total	949.01	962.32

Total Cost in Monthly PGA Filings w/o hedging		
	NNG	Con.
Jul-18	$ 6.7300	$ 6.1272
Aug-18	$ 6.7018	$ 6.2309
Sep-18	$ 6.7509	$ 6.2825
Oct-18	$ 6.9881	$ 6.3157
Nov-18	$ 7.5943	$ 6.6072
Dec-18	$ 8.9465	$ 8.1963
Jan-19	$ 8.0738	$ 7.0488
Feb-19	$ 7.3854	$ 6.4155
Mar-19	$ 7.1092	$ 6.3124
Apr-19	$ 7.1848	$ 6.0417
May-19	$ 6.7408	$ 5.8533
Jun-19	$ 6.7395	$ 5.8714
Average	$ 7.2454	$ 6.4419
	$ 0.0591	$ 0.0591

Catastrophic Winter Pricing at Market			
		NNG	Con.
Jul-18	$ 3.2874	$ 6.7300	$ 6.1272
Aug-18	$ 3.4478	$ 6.7018	$ 6.2309
Sep-18	$ 3.5480	$ 6.7509	$ 6.2825
Oct-18	$ 3.6726	$ 6.9881	$ 6.3157
Nov-18	$ 3.8411	$ 8.9533	$ 7.9641
Dec-18	$ 4.1029	$ 9.7862	$ 9.4898
Jan-19	$ 4.4766	$ 9.9286	$ 9.5040
Feb-19	$ 4.7730	$ 8.5909	$ 8.7315
Mar-19	$ 4.7422	$ 9.6058	$ 8.6585
Apr-19	$ 3.6609	$ 7.1848	$ 6.0417
May-19	$ 3.5991	$ 6.7408	$ 5.8533
Jun-19	$ 3.6126	$ 6.7395	$ 5.8714
Average	$ 3.8970	$ 7.8917	$ 7.2559

50% Fixed (Futures)		
	NNG	Con.
Jul-18	$ 6.7300	$ 6.1272
Aug-18	$ 6.7018	$ 6.2309
Sep-18	$ 6.7509	$ 6.2825
Oct-18	$ 6.9881	$ 6.3157
Nov-18	$ 7.4275	$ 6.4404
Dec-18	$ 7.3269	$ 6.5767
Jan-19	$ 7.4970	$ 6.4720
Feb-19	$ 7.5031	$ 6.5332
Mar-19	$ 7.1860	$ 6.3892
Apr-19	$ 7.1848	$ 6.0417
May-19	$ 6.7408	$ 5.8533
Jun-19	$ 6.7395	$ 5.8714
Average	$ 7.0647	$ 6.2612

50% Call Options		
	NNG	Con.
Jul-18	$ 6.7300	$ 6.1272
Aug-18	$ 6.7018	$ 6.2309
Sep-18	$ 6.7509	$ 6.2825
Oct-18	$ 6.9881	$ 6.3157
Nov-18	$ 7.5387	$ 6.5516
Dec-18	$ 8.0760	$ 7.3258
Jan-19	$ 8.1468	$ 7.1218
Feb-19	$ 7.4770	$ 6.5071
Mar-19	$ 7.1830	$ 6.3862
Apr-19	$ 7.1848	$ 6.0417
May-19	$ 6.7408	$ 5.8533
Jun-19	$ 6.7395	$ 5.8714
Average	$ 7.1881	$ 6.3846

	NNG Volumes	NNG Catastrophic Price	NNG Catastrophic Cost w/o Hedging	Con. Volumes	Con. Catastrophic Price	Con. Catastrophic Cost w/o Hedging
Jul-18	664,858	$ 6.7300	$ 4,474,497.31	101,474	$ 6.1272	$ 621,753.15
Aug-18	525,997	$ 6.7018	$ 3,525,127.10	73,653	$ 6.2309	$ 458,925.29
Sep-18	988,821	$ 6.7509	$ 6,675,428.85	101,397	$ 6.2825	$ 637,023.83
Oct-18	1,588,354	$ 6.9881	$ 11,099,578.68	246,860	$ 6.3157	$ 1,559,094.14
Nov-18	1,916,796	$ 8.9533	$ 17,161,687.84	549,837	$ 7.9641	$ 4,378,969.71
Dec-18	4,504,703	$ 9.7862	$ 44,083,974.60	822,138	$ 9.4898	$ 7,801,934.95
Jan-19	4,138,069	$ 9.9286	$ 41,085,174.70	989,398	$ 9.5040	$ 9,403,222.50
Feb-19	6,113,697	$ 8.5909	$ 52,522,020.97	1,181,897	$ 8.7315	$ 10,319,707.40
Mar-19	4,495,038	$ 9.6058	$ 43,178,628.53	1,018,466	$ 8.6585	$ 8,818,434.25
Apr-19	2,832,092	$ 7.1848	$ 20,348,017.91	680,738	$ 6.0417	$ 4,112,815.14
May-19	1,356,578	$ 6.7408	$ 9,144,420.98	416,017	$ 5.8533	$ 2,435,070.08
Jun-19	2,069,396	$ 6.7395	$ 13,946,697.44	215,452	$ 5.8714	$ 1,265,006.81
	31,194,402	$ 8.5671	$ 267,245,254.92	6,397,328	$ 8.0990	$ 51,811,957.25
	82.98%			17.02%		

	NNG Unhedged Volumes	NNG Financial Hedge Volumes	NNG Total Volumes	NNG Catastrophic Price	NNG Hedged Price	NNG Catastropic Cost	NNG Hedged Cost	NNG Total Cost	NNG Per Unit Cost	NNG Average Residential Volumes	NNG Residential Cost	w/o Hedging Catastrophic Cost	w/ Hedge 120% Cost	w/o Hedge 120% Cost	w/ Hedge 80% Cost	w/o Hedge 80% Cost
Jul-18	664,858	0	664,858	$ 6.7300		$ 4,474,497.31	$ -	$ 4,474,497.31	$ 6.7300	1.76	$ 11.8430	$ 11.84	$ 14.21	$ 14.21	$ 9.47	$ 9.47
Aug-18	525,997	0	525,997	$ 6.7018		$ 3,525,127.10	$ -	$ 3,525,127.10	$ 6.7018	1.26	$ 8.4378	$ 8.44	$ 10.13	$ 10.13	$ 6.75	$ 6.75
Sep-18	988,821	0	988,821	$ 6.7509		$ 6,675,428.85	$ -	$ 6,675,428.85	$ 6.7509	1.86	$ 12.5825	$ 12.58	$ 15.10	$ 15.10	$ 10.07	$ 10.07
Oct-18	1,588,354	0	1,588,354	$ 6.9881		$ 11,099,578.68	$ -	$ 11,099,578.68	$ 6.9881	3.12	$ 21.8315	$ 21.83	$ 26.20	$ 26.20	$ 17.47	$ 17.47
Nov-18	1,114,509	802,287	1,916,796	$ 8.9533	$ 2.4265	$ 9,978,556.25	$ 1,946,749.41	$ 11,925,305.66	$ 6.2215	7.62	$ 47.4265	$ 68.25	$ 56.91	$ 81.90	$ 37.94	$ 54.60
Dec-18	3,214,427	1,290,276	4,504,703	$ 9.7862	$ 2.5911	$ 31,457,062.38	$ 3,343,234.14	$ 34,800,296.53	$ 7.7253	15.12	$ 116.8173	$ 147.98	$ 140.18	$ 177.58	$ 93.45	$ 118.38
Jan-19	2,690,644	1,447,425	4,138,069	$ 9.9286	$ 2.5356	$ 26,714,291.48	$ 3,670,090.83	$ 30,384,382.31	$ 7.3426	12.94	$ 94.9926	$ 128.45	$ 113.99	$ 154.14	$ 75.99	$ 102.76
Feb-19	4,856,505	1,257,192	6,113,697	$ 8.5909	$ 3.6277	$ 41,721,639.44	$ 4,560,715.42	$ 46,282,354.86	$ 7.5703	17.83	$ 134.9930	$ 153.19	$ 161.99	$ 183.83	$ 107.99	$ 122.55
Mar-19	3,502,518	992,520	4,495,038	$ 9.6058	$ 2.2905	$ 33,644,638.09	$ 2,273,367.06	$ 35,918,005.15	$ 7.9906	15.63	$ 124.8611	$ 150.10	$ 149.83	$ 180.12	$ 99.89	$ 120.08
Apr-19	2,832,092	0	2,832,092	$ 7.1848		$ 20,348,017.91	$ -	$ 20,348,017.91	$ 7.1848	8.72	$ 62.6520	$ 62.65	$ 75.18	$ 75.18	$ 50.12	$ 50.12
May-19	1,356,578	0	1,356,578	$ 6.7408		$ 9,144,420.98	$ -	$ 9,144,420.98	$ 6.7408	6.05	$ 40.7718	$ 40.77	$ 48.93	$ 48.93	$ 32.62	$ 32.62
Jun-19	2,069,396	0	2,069,396	$ 6.7395		$ 13,946,697.44	$ -	$ 13,946,697.44	$ 6.7395	2.99	$ 20.1265	$ 20.13	$ 24.15	$ 24.15	$ 16.10	$ 16.10
	25,404,702	5,789,700	31,194,402	$ 8.3736	$ 2.7280	$ 212,729,955.91	$ 15,794,156.86	$ 228,524,112.77	$ 7.3258	94.90	$ 697.34	$ 826.22	$ 836.80	$ 991.46	$ 557.87	$ 660.97
											$ 7.3480	$ 8.7061	$ 7.3480	$ 8.7061	$ 0.8440	$ 1.0000
											$ 58.11	$ 68.85	$ 69.73	$ 82.62	$ 46.49	$ 55.08

	Con. Unhedged Volumes	Con. Financial Hedge Volumes	Con. Total Volumes	Con. Catastrophic Price	Con. Hedged Price	Con. Catastropic Cost	Con. Hedged Cost	Con. Total Cost	Con. Per Unit Cost	Con. Average Residential Volumes	Con. Residential Cost	w/o Hedging Catastrophic Cost	w/ Hedge 120% Cost	w/o Hedge 120% Cost	w/ Hedge 80% Cost	w/o Hedge 80% Cost
Jul-18	101,474	0	101,474	$ 6.1272		$ 621,753.15	$ -	$ 621,753.15	$ 6.1272	0.84	$ 5.1571	$ 5.16	$ 6.19	$ 6.19	$ 4.13	$ 4.13
Aug-18	73,653	0	73,653	$ 6.2309		$ 458,925.29	$ -	$ 458,925.29	$ 6.2309	0.76	$ 4.7167	$ 4.72	$ 5.66	$ 5.66	$ 3.77	$ 3.77
Sep-18	101,397	0	101,397	$ 6.2825		$ 637,023.83	$ -	$ 637,023.83	$ 6.2825	1.01	$ 6.3564	$ 6.36	$ 7.63	$ 7.63	$ 5.09	$ 5.09
Oct-18	246,860	0	246,860	$ 6.3157		$ 1,559,094.14	$ -	$ 1,559,094.14	$ 6.3157	3.69	$ 23.2930	$ 23.29	$ 27.95	$ 27.95	$ 18.63	$ 18.63
Nov-18	382,124	167,713	549,837	$ 7.9641	$ 2.6166	$ 3,043,283.39	$ 438,837.84	$ 3,482,121.23	$ 6.3330	8.55	$ 54.1539	$ 68.10	$ 64.98	$ 81.72	$ 43.32	$ 54.48
Dec-18	552,414	269,724	822,138	$ 9.4898	$ 2.7253	$ 5,242,305.37	$ 735,078.82	$ 5,977,384.19	$ 7.2705	13.26	$ 96.4316	$ 125.87	$ 115.72	$ 151.04	$ 77.15	$ 100.69
Jan-19	686,823	302,575	989,398	$ 9.5040	$ 2.6238	$ 6,527,554.01	$ 793,896.29	$ 7,321,450.30	$ 7.3999	14.90	$ 110.2378	$ 141.58	$ 132.29	$ 169.90	$ 88.19	$ 113.27
Feb-19	919,089	262,808	1,181,897	$ 8.7315	$ 2.6081	$ 8,025,005.46	$ 685,429.54	$ 8,710,435.01	$ 7.3699	18.43	$ 135.8579	$ 160.96	$ 163.03	$ 193.15	$ 108.69	$ 128.77
Mar-19	810,986	207,480	1,018,466	$ 8.6585	$ 2.4286	$ 7,021,959.92	$ 503,885.93	$ 7,525,845.85	$ 7.3894	15.54	$ 114.8647	$ 134.59	$ 137.84	$ 161.51	$ 91.89	$ 107.67
Apr-19	680,738	0	680,738	$ 6.0417		$ 4,112,815.14	$ -	$ 4,112,815.14	$ 6.0417	10.24	$ 61.8588	$ 61.86	$ 74.23	$ 74.23	$ 49.49	$ 49.49
May-19	416,017	0	416,017	$ 5.8533		$ 2,435,070.08	$ -	$ 2,435,070.08	$ 5.8533	6.11	$ 35.7852	$ 35.79	$ 42.94	$ 42.94	$ 28.63	$ 28.63
Jun-19	215,452	0	215,452	$ 5.8714		$ 1,265,006.81	$ -	$ 1,265,006.81	$ 5.8714	2.89	$ 16.9708	$ 16.97	$ 20.36	$ 20.36	$ 13.58	$ 13.58
	5,187,028	1,210,300	6,397,328	$ 7.8947	$ 2.6086	$ 40,949,796.59	$ 3,157,128.41	$ 44,106,925.00	$ 6.8946	96.23	$ 665.68	$ 785.24	$ 798.82	$ 942.29	$ 532.55	$ 628.19
											$ 6.9175	$ 8.1599	$ 6.9175	$ 8.1599	$ 0.8477	$ 1.0000
											$ 55.47	$ 65.44	$ 66.57	$ 78.52	$ 44.38	$ 52.35