The Narragansett Electric Company

d/b/a National Grid

INVESTIGATION AS TO THE PROPRIETY OF PROPOSED TARIFF CHANGES

Schedules of:

Paul M. Normand

Book 14 of 17

November 27, 2017

Submitted to:
Rhode Island Public Utilities Commission
RIPUC Docket No. 4770

Submitted by:

nationalgrid

Schedule
PMN-7

Schedule PMN-7

Rate Design Summary

NG RI PROPOSED GAS RATE DESIGN

	(A)		(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)
					Weather Normalized Sales											
		CURRENT RATES	Annual	Existing Customer	Sales	Transp		Total	Annual Proposed Blocking	First Block	First Block	Tail Block	MADQ Demand	Dist Chrg Head Per	Dist Chrg Tail Per	Demand Per
	Rate		Customers	Charge	(therms)	(therms)		Therms	Therms	% usage	Therms	Therms	Therms	Therms	Therms	Therms
6	80	Gas Lights	2,326	$9.52												
7	10	Residential, Non-Heat	201,541	$13.00	3,673,573	0		3,673,573	NA	100.00%	3,673,573	0		$0.4386		
8	11	Residential, Low Income Non-Heat	2,492	$11.70	101,774	0		101,774	NA	100.00%	101,774	0		$0.3947		
9		Total Non Heat	204,033		3,775,348	0		3,775,348			3,775,348	0				
10																
11	12	Residential, Heat Peak	1,261,573	$13.00	144,054,319	0		144,054,319	125	74.85%	107,825,814	36,228,505		$0.4672	$0.3010	
12	12	Residential, Heat Off-Peak	1,258,710	$13.00	33,442,491	0		33,442,491	30	78.60%	26,285,200	7,157,291		$0.4672	$0.3010	
13	13	Residential, Low Income Heat Peak	103,030	$11.70	11,536,022	0		11,536,022	125	79.11%	9,125,974	2,410,048		$0.4205	$0.2709	
14	13	Residential, Low Inc Heat Off-Peak	101,871	$11.70	2,725,461	0		2,725,461	30	83.32%	2,270,725	454,736		$0.4205	$0.2709	
15		Total Heating	2,725,184		191,758,293	0		191,758,293			145,507,713	46,250,580				
16																
17	21	Comm & Indust Small Peak	111,874	$22.00	19,048,352	0		19,048,352	135	46.60%	8,877,404	10,170,948		$0.5431	$0.2242	
18	21	Comm & Indust Small Off-Peak	111,049	$22.00	3,838,817	0		3,838,817	20	32.91%	1,263,285	2,575,531		$0.5431	$0.2242	
19	21	Comm & Indust Small FT-2 Peak	4,163	$22.00	0	1,392,814		1,392,814	135	46.86%	652,721	740,093		$0.5431	$0.2242	
20	21	Comm & Indust Small FT-2 Off-Peak	4,231	$22.00	0	351,777		351,777	20	33.66%	118,400	233,376		$0.5431	$0.2242	
21		Total Comm & Ind Small	231,317		22,887,169	1,744,590		24,631,759			10,911,811	13,719,949				
22																
23	22	Comm & Indust Medium Sales	40,181	$70.00	31,579,424	0		31,579,424	NA	100.00%	31,579,424	0	2,412,345	$0.1865		$1.3000
24	22	Comm & Indust Medium FT-1	3,928	$70.00	0	5,321,965		5,321,965	NA	100.00%	5,321,965	0	398,547	$0.1865		$1.3000
25	22	Comm & Indust Medium FT-2	18,305	$70.00	0	18,345,461		18,345,461	NA	100.00%	18,345,461	0	1,366,900	$0.1865		$1.3000
26	22	Total Comm & Indust Medium	62,414		31,579,424	23,667,426		55,246,850			55,246,850	0	4,177,792			
27																
28	33	Comm & Indust Large LLF Sales	1,404	$175.00	5,970,565	0		5,970,565	NA	100.00%	5,970,565	0	537,935	$0.1727		$1.3000
29	33	Comm & Indust Large LLF FT-1	1,461	$175.00	0	8,160,548		8,160,548	NA	100.00%	8,160,548	0	652,793	$0.1727		$1.3000
30	33	Comm & Indust Large LLF FT-2	2,608	$175.00	0	12,236,040		12,236,040	NA	100.00%	12,236,040	0	993,434	$0.1727		$1.3000
31	33	Total Comm & Ind Large LLF	5,473		5,970,565	20,396,587		26,367,153			26,367,153	0	2,184,163			
32																
33	23	Comm & Indust Large HLF Sales	670	$175.00	2,712,395	0		2,712,395	NA	100.00%	2,712,395	0	61,187	$0.1007		$1.8000
34	23	Comm & Indust Large HLF FT-1	1,031	$175.00	0	5,161,579		5,161,579	NA	100.00%	5,161,579	0	258,686	$0.1007		$1.8000
35	23	Comm & Indust Large HLF FT-2	735	$175.00	0	5,228,802		5,228,802	NA	100.00%	5,228,802	0	241,549	$0.1007		$1.8000
36	23	Total Comm & Ind Large HLF	2,436		2,712,395	10,390,381		13,102,776			13,102,776	0	561,421			
37																
38	34	Comm & Ind Extra Large LLF Sales	48	$425.00	428,805	0		428,805	NA	100.00%	428,805	0	43,562	$0.0328		$1.3000
39	34	Comm & Ind Extra Large LLF FT-1	324	$425.00	0	11,221,498		11,221,498	NA	100.00%	11,221,498	0	779,109	$0.0328		$1.3000
40	34	Comm & Ind Extra Large LLF FT-2	36	$425.00	0	581,031		581,031	NA	100.00%	581,031	0	39,201	$0.0328		$1.3000
41	34	Tot Com & Ind Extra Large LLF	408		428,805	11,802,529		12,231,334			12,231,334	0	861,871			
42																
43	24	Comm & Ind Extra Large HLF Sales	36	$425.00	761,197	0		761,197	NA	100.00%	761,197	0	67,357	$0.0256		$1.8000
44	24	Comm & Ind Extra Large HLF FT-1	888	$425.00	0	63,406,498		63,406,498	NA	100.00%	63,406,498	0	2,339,952	$0.0256		$1.8000
45	24	Comm & Ind Extra Large HLF FT-2	192	$425.00	0	5,443,394		5,443,394	NA	100.00%	5,443,394	0	266,355	$0.0256		$1.8000
46	24	Tot Com & Ind Extra Large HLF	1,116		761,197	68,849,892		69,611,089			69,611,089	0	2,673,665			
47																
48		Total	3,232,381		259,873,195	136,851,405		396,724,601			336,754,072	59,970,529	10,458,912			
49			Excl Lghts									396,724,601				

THE NARRAGANSETT ELECTRIC COMPANY
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NG RI PROPOSED GAS RATE DESIGN

	(A)		(P)	(Q)	(R)	(S)	(T)	(U)	(V)	(W)	(X)	(Y)	(Z)	(AA)
						Cost of Service Results		Revenue						
		CURRENT RATES	Existing Base	RDM & ISR Adjust &	Present Sales	Existing	Equalized ROR	Increase to Equalize	Percent Increase	Proposed Increases Capped @	Shortfall $ Allocation on Equalized	Prelim Class	Initial Target Rev	Prelim Base Percent
	Rate		Revenues	Norm ERC	Revenues	ROR	7.67% Rev Req	Col T - R	Equal ROR	16.52%	ROR Rev	Increase	Req for Class	Increase
	80	Gas Lights	$22,148		$22,148		$38,643	$16,495	74.47%	$3,659		$3,659	$25,807	16.52%
	10	Residential, Non-Heat	$4,231,262	$441,706	$4,672,968		$7,382,459	$2,709,492	57.98%	$772,109		$772,109	$5,445,077	16.52%
	11	Residential, Low Income Non-Heat	$69,327	$12,237	$81,564		$120,957	$39,393	48.30%	$13,477		$13,477	$95,040	16.52%
		Total Non Heat	$4,322,737	$453,943	$4,776,680	-1.27%	$7,542,059	$2,765,379	57.89%	$789,245		$789,245	$5,565,925	16.52%
	12	Residential, Heat Peak	$77,681,449	$17,320,898	$95,002,347		$106,563,974	$11,561,626	12.17%	$12,284,708	$397,274	$12,681,983	$107,684,330	13.35%
	12	Residential, Heat Off-Peak	$30,798,020	$4,021,080	$34,819,100		$42,248,946	$7,429,846	21.34%	$5,753,119	$157,506	$5,910,625	$40,729,725	16.98%
	13	Residential, Low Income Heat Peak	$5,695,805	$1,387,076	$7,082,881		$7,813,547	$730,666	10.32%	$915,884	$29,129	$945,013	$8,027,894	13.34%
	13	Residential, Low Inc Heat Off-Peak	$2,269,919	$327,706	$2,597,624		$3,113,891	$516,266	19.87%	$429,202	$11,609	$440,811	$3,038,436	16.97%
		Total Heating	$116,445,193	$23,056,760	$139,501,953	5.07%	$159,740,357	$20,238,404	14.51%	$19,382,914	$595,518	$19,978,432	$159,480,385	14.32%
	21	Comm & Indust Small Peak	$9,562,873	$2,278,914	$11,841,787		$14,333,148	$2,491,362	21.04%	$1,956,605		$1,956,605	$13,798,392	16.52%
	21	Comm & Indust Small Off-Peak	$3,706,602	$459,270	$4,165,872		$5,555,578	$1,389,705	33.36%	$688,322		$688,322	$4,854,195	16.52%
	21	Comm & Indust Small FT-2 Peak	$612,007	$166,634	$778,641		$917,297	$138,655	17.81%	$128,654		$128,654	$907,295	16.52%
	21	Comm & Indust Small FT-2 Off-Peak	$209,708	$42,086	$251,794		$314,318	$62,523	24.83%	$41,604		$41,604	$293,398	16.52%
		Total Comm & Ind Small	$14,091,191	$2,946,904	$17,038,095	3.49%	$21,120,341	$4,082,246	23.96%	$2,815,185		$2,815,185	$19,853,279	16.52%
	22	Comm & Indust Medium Sales	$11,838,281	$2,716,574	$14,554,855		$15,839,776	$1,284,921	8.83%	$1,882,081	$59,051	$1,941,133	$16,495,988	13.34%
	22	Comm & Indust Medium FT-1	$1,785,617	$457,814	$2,243,431		$2,389,179	$145,748	6.50%	$290,097	$8,907	$299,004	$2,542,435	13.33%
	22	Comm & Indust Medium FT-2	$6,479,749	$1,578,142	$8,057,891		$8,669,989	$612,099	7.60%	$1,041,962	$32,322	$1,074,284	$9,132,175	13.33%
	22	Total Comm & Indust Medium	$20,103,647	$4,752,530	$24,856,177	6.30%	$26,898,945	$2,042,768	8.22%	$3,214,140	$100,280	$3,314,421	$28,170,598	13.33%
									Minimum	12.93%				
	33	Comm & Indust Large LLF Sales	$1,976,132	$530,218	$2,506,350		$2,598,259	$91,909	3.67%	$324,095	$9,686	$333,781	$2,840,131	13.32%
	33	Comm & Indust Large LLF FT-1	$2,513,632	$724,700	$3,238,332		$3,304,975	$66,643	2.06%	$418,747	$12,321	$431,068	$3,669,400	13.31%
	33	Comm & Indust Large LLF FT-2	$3,861,029	$1,086,625	$4,947,654		$5,076,559	$128,905	2.61%	$639,779	$18,926	$658,704	$5,606,358	13.31%
	33	Total Comm & Ind Large LLF	$8,350,794	$2,341,543	$10,692,336	7.25%	$10,979,793	$287,457	2.69%	$1,382,621	$40,933	$1,423,554	$12,115,890	13.31%
									Minimum	12.93%				
	23	Comm & Indust Large HLF Sales	$500,525	$188,774	$689,299		$799,568	$110,270	16.00%	$110,270		$110,270	$799,568	16.00%
	23	Comm & Indust Large HLF FT-1	$1,165,831	$359,229	$1,525,060		$1,862,369	$337,309	22.12%	$251,984		$251,984	$1,777,044	16.52%
	23	Comm & Indust Large HLF FT-2	$1,089,953	$363,908	$1,453,861		$1,741,157	$287,296	19.76%	$240,220		$240,220	$1,694,080	16.52%
	23	Total Comm & Ind Large HLF	$2,756,308	$911,911	$3,668,219	4.98%	$4,403,093	$734,874	20.03%	$602,473		$602,473	$4,270,693	16.42%
	34	Comm & Ind Extra Large LLF Sales	$91,095	$10,367	$101,462		$106,771	$5,309	5.23%	$13,120	$398	$13,518	$114,980	13.32%
	34	Comm & Ind Extra Large LLF FT-1	$1,518,606	$271,299	$1,789,906		$1,779,937	($9,968)	-0.56%	$231,452	$6,636	$238,087	$2,027,993	13.30%
	34	Comm & Ind Extra Large LLF FT-2	$85,319	$14,047	$99,366		$100,001	$635	0.64%	$12,849	$373	$13,222	$112,588	13.31%
	34	Tot Com & Ind Extra Large LLF	$1,695,020	$295,714	$1,990,734	7.70%	$1,986,709	($4,025)	-0.20%	$257,421	$7,407	$264,827	$2,255,561	13.30%
									Minimum	12.93%				
	24	Comm & Ind Extra Large HLF Sales	$156,030	$15,890	$171,920		$191,977	$20,057	11.67%	$22,231	$716	$22,947	$194,867	13.35%
	24	Comm & Ind Extra Large HLF FT-1	$6,212,521	$1,323,629	$7,536,150		$7,643,809	$107,659	1.43%	$974,496	$28,496	$1,002,992	$8,539,142	13.31%
	24	Comm & Ind Extra Large HLF FT-2	$700,390	$113,632	$814,023		$861,752	$47,729	5.86%	$105,261	$3,213	$108,474	$922,496	13.33%
	24	Tot Com & Ind Extra Large HLF	$7,068,941	$1,453,151	$8,522,092	7.34%	$8,697,538	$175,445	2.06%	$1,101,988	$32,425	$1,134,412	$9,656,505	13.31%
									Minimum	12.93%				
		Total	$174,833,830	$36,212,456	$211,046,286	5.17%	$241,368,836	$30,322,549	14.37%	$29,545,987	$776,563	$30,322,549	$241,368,836	14.37%
								115% cap	1.15	$776,563				
							Capped Incr. on Base $$		16.52%	$ Rev shortfall due to cap				
								90% minimum	0.90					
							Minumum Incr. on Base $$		12.93%					

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	(A)		(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)
					Cost Study											
				Existing	@ Equalized	Proposed	Existing Dist Charges		Proposed Charges							
			Annual	Customer	ROR	Customer	Head Per	Tail Per	Therm Blocks			Average	Proposed		Existing	
			Customers	Charge	Cust $ (1)	Charges	Therms	Therms	First	Second	MDD	Rate	RORs			
63	80	Gas Lights	2,326	$9.52	$30.55	$11.09										
64	10	Residential, Non-Heat	201,541	$13.00	$30.55	$16.00	$0.4386		$0.6027			$0.6044			-1.27%	
65	11	Residential, Low Income Non-Heat	2,492	$11.70	$30.55	$16.00	$0.3947		$0.6027			$0.5421			-1.27%	
66		Total Non Heat	204,033						$0.6027			$0.6027	1.34%		-1.27%	
67																
68	12	Residential, Heat Peak	1,261,573	$13.00	$30.73	$16.00	$0.4672	$0.3010	$0.6034			$0.6067			5.07%	
69	12	Residential, Heat Off-Peak	1,258,710	$13.00	$30.73	$16.00	$0.4672	$0.3010	$0.6034			$0.6145			5.07%	
70		Total Residential Heat	2,520,283	$13.00	$30.73	$16.00	$0.4672	$0.3010	$0.6034			$0.6081	7.69%		5.07%	
71																
72	13	Residential, Low Income Heat Peak	103,030	$11.70	$30.73	$16.00	$0.4205	$0.2709	$0.6034			$0.5523			5.07%	
73	13	Residential, Low Inc Heat Off-Peak	101,871	$11.70	$30.73	$16.00	$0.4205	$0.2709	$0.6034			$0.5157			5.07%	
74		Total Heating Low Income	204,901	$11.70	$30.73	$16.00	$0.4205	$0.2709	$0.6034			$0.5453	7.69%		5.07%	
75		Total Residential Heating	2,725,184			$16.00			$0.6034							
76																
77	21	Comm & Indust Small Peak	111,874	$22.00	$48.76	$35.00	$0.5431	$0.2242	$0.4773			$0.5188			3.49%	
78	21	Comm & Indust Small Off-Peak	111,049	$22.00	$48.76	$35.00	$0.5431	$0.2242	$0.4773			$0.2520			3.49%	
79	21	Comm & Indust Small FT-2 Peak	4,163	$22.00	$48.76	$35.00	$0.5431	$0.2242	$0.4773			$0.5468			3.49%	
80	21	Comm & Indust Small FT-2 Off-Peak	4,231	$22.00	$48.76	$35.00	$0.5431	$0.2242	$0.4773			$0.4131			3.49%	
81		Total Comm & Ind Small	231,317	$22.00	$48.76	$35.00	$0.5431	$0.2242	$0.4773			$0.4773	6.43%		3.49%	
82								Demand			Prop Dem					
83	22	Comm & Indust Medium Sales	40,181	$70.00	$114.61	$85.00	$0.1865	$1.30	$0.2999		$1.50				6.30%	
84	22	Comm & Indust Medium FT-1	3,928	$70.00	$114.61	$85.00	$0.1865	$1.30	$0.2999		$1.50				6.30%	
85	22	Comm & Indust Medium FT-2	18,305	$70.00	$114.61	$85.00	$0.1865	$1.30	$0.2999		$1.50				6.30%	
86	22	Total Comm & Indust Medium	62,414	$70.00	$114.61	$85.00	$0.1865	$1.30	$0.2999		$1.50		8.57%		6.30%	
87																
88	33	Comm & Indust Large LLF Sales	1,404	$175.00	$233.99	$200.00	$0.1727	$1.30	$0.2932		$1.50				7.25%	
89	33	Comm & Indust Large LLF FT-1	1,461	$175.00	$233.99	$200.00	$0.1727	$1.30	$0.2932		$1.50				7.25%	
90	33	Comm & Indust Large LLF FT-2	2,608	$175.00	$233.99	$200.00	$0.1727	$1.30	$0.2932		$1.50				7.25%	
91	33	Total Comm & Ind Large LLF	5,473	$175.00	$233.99	$200.00	$0.1727	$1.30	$0.2932		$1.50		9.39%		7.25%	
92																
93	23	Comm & Indust Large HLF Sales	670	$175.00	$207.65	$200.00	$0.1007	$1.80	$0.2009		$2.05				4.98%	
94	23	Comm & Indust Large HLF FT-1	1,031	$175.00	$207.65	$200.00	$0.1007	$1.80	$0.2009		$2.05				4.98%	
95	23	Comm & Indust Large HLF FT-2	735	$175.00	$207.65	$200.00	$0.1007	$1.80	$0.2009		$2.05				4.98%	
96	23	Total Comm & Ind Large HLF	2,436	$175.00	$207.65	$200.00	$0.1007	$1.80	$0.2009		$2.05		7.23%		4.98%	
97																
98	34	Comm & Ind Extra Large LLF Sales	48	$425.00	$529.12	$500.00	$0.0328	$1.30	$0.0618		$1.50				7.70%	
99	34	Comm & Ind Extra Large LLF FT-1	324	$425.00	$529.12	$500.00	$0.0328	$1.30	$0.0618		$1.50				7.70%	
100	34	Comm & Ind Extra Large LLF FT-2	36	$425.00	$529.12	$500.00	$0.0328	$1.30	$0.0618		$1.50				7.70%	
101	34	Tot Com & Ind Extra Large LLF	408	$425.00	$529.12	$500.00	$0.0328	$1.30	$0.0618		$1.50		9.99%		7.70%	
102																
103	24	Comm & Ind Extra Large HLF Sales	36	$425.00	$551.10	$500.00	$0.0256	$1.80	$0.0518		$2.05				7.34%	
104	24	Comm & Ind Extra Large HLF FT-1	888	$425.00	$551.10	$500.00	$0.0256	$1.80	$0.0518		$2.05				7.34%	
105	24	Comm & Ind Extra Large HLF FT-2	192	$425.00	$551.10	$500.00	$0.0256	$1.80	$0.0518		$2.05				7.34%	
106	24	Tot Com & Ind Extra Large HLF	1,116	$425.00	$551.10	$500.00	$0.0256	$1.80	$0.0518		$2.05		9.53%		7.34%	
107																
108		Total	3,232,381								system avg.		7.72%		5.17%	
109		check									114.37%					
110																
111		(1) Schedule PMN-5, Page 5, Line 20														

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NG RI PROPOSED GAS RATE DESIGN

		(A)	(P)	(Q)	(R)	(S)	(T)	(U)	(V)	(W)	(X)	(Y)	(Z)	(AA)
			Proposed Revenue Recovery					Less					Target	Final
			Customer	Therms	Therms		Total Revenues	Non-Firm Revenue	Class Target	$ Variance to target with	Final Class		Revenue Requirement	Base Percent
			Charges	First Block	2nd Block	MDD	@ Prop Rates	Increase	Rev Req	& Discount	Increase		By Class	Increase
63	80	Gas Lights	$25,807				$25,807		$25,807		$3,659		$25,807	16.52%
64	10	Residential, Non-Heat	$3,224,656	$2,214,063			$5,438,719		$5,445,077	-$6,358	$765,751		$5,438,719	16.39%
65	11	Residential, Low Income Non-Heat	$39,872	$61,339			$101,211		$95,040	$6,171	$19,647		$101,211	24.09%
66		Total Non Heat	$3,290,335	$2,275,402			$5,565,737	$0	$5,565,925	-$187	$789,058		$5,565,737	16.52%
67														
68	12	Residential, Heat Peak	$20,185,168	$86,922,376			$107,107,544	($107,540)	$107,576,790	-$469,246	$12,105,197		$107,107,544	12.74%
69	12	Residential, Heat Off-Peak	$20,139,360	$20,179,199			$40,318,559	($39,414)	$40,690,311	-$371,752	$5,499,459		$40,318,559	15.79%
70		Total Residential Heat	$40,324,528	$107,101,575			$147,426,103	($146,955)	$148,267,101	-$840,998	$17,604,655		$147,426,103	13.56%
71														
72	13	Residential, Low Income Heat Peak	$1,648,480	$6,960,836			$8,609,316	($8,018)	$8,019,876	$589,439	$1,526,435		$8,609,316	21.55%
73	13	Residential, Low Inc Heat Off-Peak	$1,629,936	$1,644,543			$3,274,479	($2,940)	$3,035,495	$238,984	$676,855		$3,274,479	26.06%
74		Total Heating Low Income	$3,278,416	$8,605,379			$11,883,795	($10,958)	$11,055,371	$828,424	$2,203,290		$11,883,795	22.76%
75		Total Residential Heating	$43,602,944	$115,706,954			$159,309,898	($157,913)	$159,322,472	-$12,574	$19,807,945		$159,309,898	14.20%
76														
77	21	Comm & Indust Small Peak	$3,915,590	$9,091,778			$13,007,368		$13,798,392	-$791,023	$1,165,581		$13,007,368	9.84%
78	21	Comm & Indust Small Off-Peak	$3,886,715	$1,832,267			$5,718,982		$4,854,195	$864,788	$1,553,110		$5,718,982	37.28%
79	21	Comm & Indust Small FT-2 Peak	$145,705	$664,790			$810,495		$907,295	-$96,800	$31,854		$810,495	4.09%
80	21	Comm & Indust Small FT-2 Off-Peak	$148,085	$167,903			$315,988		$293,398	$22,590	$64,194		$315,988	25.49%
81		Total Comm & Ind Small	$8,096,095	$11,756,739			$19,852,834	$0	$19,853,279	-$446	$2,814,739		$19,852,834	16.52%
82														
83	22	Comm & Indust Medium Sales	$3,415,385	$9,470,669		$3,618,518	$16,504,572	($16,476)	$16,479,512	$25,060	$1,949,717		$16,504,572	13.40%
84	22	Comm & Indust Medium FT-1	$333,880	$1,596,057		$597,820	$2,527,757	($2,540)	$2,539,896	-$12,139	$284,326		$2,527,757	12.67%
85	22	Comm & Indust Medium FT-2	$1,555,925	$5,501,804		$2,050,351	$9,108,079	($9,121)	$9,123,053	-$14,974	$1,050,189		$9,108,079	13.03%
86	22	Total Comm & Indust Medium	$5,305,190	$16,568,530		$6,266,688	$28,140,408	($28,137)	$28,142,461	-$2,053	$3,284,231		$28,140,408	13.21%
87														
88	33	Comm & Indust Large LLF Sales	$280,800	$1,750,570		$806,903	$2,838,273	($2,837)	$2,837,294	$978	$331,922		$2,838,273	13.24%
89	33	Comm & Indust Large LLF FT-1	$292,200	$2,392,673		$979,189	$3,664,062	($3,666)	$3,665,735	-$1,673	$425,730		$3,664,062	13.15%
90	33	Comm & Indust Large LLF FT-2	$521,600	$3,587,607		$1,490,152	$5,599,358	($5,601)	$5,600,758	-$1,399	$651,705		$5,599,358	13.17%
91	33	Total Comm & Ind Large LLF	$1,094,600	$7,730,849		$3,276,244	$12,101,693	($12,103)	$12,103,787	-$2,094	$1,409,357		$12,101,693	13.18%
92														
93	23	Comm & Indust Large HLF Sales	$134,000	$544,920		$125,433	$804,353		$799,568	$4,785	$115,055		$804,353	16.69%
94	23	Comm & Indust Large HLF FT-1	$206,200	$1,036,961		$530,306	$1,773,467		$1,777,044	-$3,577	$248,407		$1,773,467	16.29%
95	23	Comm & Indust Large HLF FT-2	$147,000	$1,050,466		$495,174	$1,692,641		$1,694,080	-$1,440	$238,780		$1,692,641	16.42%
96	23	Total Comm & Ind Large HLF	$487,200	$2,632,348		$1,150,914	$4,270,461	$0	$4,270,693	-$231	$602,242		$4,270,461	16.42%
97														
98	34	Comm & Ind Extra Large LLF Sales	$24,000	$26,500		$65,343	$115,843	($115)	$114,865	$977	$14,381		$115,843	14.17%
99	34	Comm & Ind Extra Large LLF FT-1	$162,000	$693,489		$1,168,663	$2,024,151	($2,026)	$2,025,967	-$1,816	$234,246		$2,024,151	13.09%
100	34	Comm & Ind Extra Large LLF FT-2	$18,000	$35,908		$58,801	$112,709	($112)	$112,475	$233	$13,343		$112,709	13.43%
101	34	Tot Com & Ind Extra Large LLF	$204,000	$755,896		$1,292,806	$2,252,703	($2,253)	$2,253,308	-$605	$261,969		$2,252,703	13.16%
102														
103	24	Comm & Ind Extra Large HLF Sales	$18,000	$39,430		$138,083	$195,513	($195)	$194,672	$841	$23,592		$195,513	13.72%
104	24	Comm & Ind Extra Large HLF FT-1	$444,000	$3,284,457		$4,796,903	$8,525,359	($8,531)	$8,530,611	-$5,252	$989,210		$8,525,359	13.13%
105	24	Comm & Ind Extra Large HLF FT-2	$96,000	$281,968		$546,028	$923,996	($921)	$921,575	$2,421	$109,973		$923,996	13.51%
106	24	Tot Com & Ind Extra Large HLF	$558,000	$3,605,854		$5,481,013	$9,644,868	($9,647)	$9,646,858	-$1,990	$1,122,775		$9,644,868	13.17%
107														
108		Total	$62,638,364	$161,032,573	$0	$17,467,665	$241,138,602	($210,053)	$241,158,783	-$20,180	$30,092,316		$241,138,602	14.26%
109		check						($210,053)						
110														
111		(1) Schedule PMN-5, Page 5, Line 20												

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NG RI PROPOSED GAS RATE DESIGN
Non-Firm Rates

Line No.	Rate Class	Proposed Revenues: Demand (MDD)	Proposed Revenues: Distribution (Therm)	Proposed Revenues: Total	20% Discount	Discounted Revenue	Distribution Throughput	Firm Rate at a 20% Discount (Therm)	Current Rate per Therm	Proposed Rate Capped at Total Increase	Non-firm Therms (1)	Non-firm Therm Revenue
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(I)	(J)	(K)	(L)	(M)
										14.37%		
1	Medium C&I	$ 6,266,688	$ 21,873,720	$ 28,140,408	$ (5,628,082)	$ 22,512,327	55,246,850	$ 0.4075	$ 0.2206	$ 0.2523		
2	Large Low Load Factor C&I	$ 3,276,244	$ 8,825,449	$ 12,101,693	$ (2,420,339)	$ 9,681,354	26,367,153	$ 0.3672	$ 0.2147	$ 0.2455		
3	Large High Load Factor C&I	$ 1,150,914	$ 3,119,548	$ 4,270,461	$ (854,092)	$ 3,416,369	13,102,776	$ 0.2607	$ 0.1436	$ 0.1642		
4	Extra Large Low Load Factor C&I	$ 1,292,806	$ 959,896	$ 2,252,703	$ (450,541)	$ 1,802,162	12,231,334	$ 0.1473	$ 0.0912	$ 0.1043	4,947,118	$ 516,001
5	Extra Large High Load Factor C&I	$ 5,481,013	$ 4,163,854	$ 9,644,868	$ (1,928,974)	$ 7,715,894	69,611,089	$ 0.1108	$ 0.0733	$ 0.0838	12,533,193	$ 1,050,677
6	Total	$ 17,467,665	$ 38,942,468	$ 56,410,133	$ (11,282,027)	$ 45,128,107	176,559,201				17,480,311	$ 1,566,678

		Current Customer Charge	Proposed Customer Charge	Annual Customers (1)	Customer Charges	Total Proposed Non-firm Revenue (col K + col N)	Total Present Non-firm Revenue (1)	Total Non-firm Revenue Increase	Final Base Percent Increase
		(N)	(O)	(P)	(Q)	(R)	(S)	(T)	(U)
7	Medium C&I								
8	Large Low Load Factor C&I								
9	Large High Load Factor C&I								
10	Extra Large Low Load Factor C&I	$ 625	$ 735	24	$ 17,647	$ 533,648	$ 466,177	$ 67,471	14.47%
11	Extra Large High Load Factor C&I	$ 625	$ 735	96	$ 70,588	$ 1,121,265	$ 978,683	$ 142,582	14.57%
12	Total			120	$ 88,235	$ 1,654,913	$ 1,444,860	$ 210,053	14.54%

Notes:
(1) Source file is "Non Firm Revenue Detail Apr 16-Jun 17 Rev 11-15.xlsx"

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Rhode Island:

Revenue Per Customer for RDM

Line No.		Sep-18 (a)	Oct-18 (b)	Nov-18 (c)	Dec-18 (d)	Jan-19 (e)	Feb-19 (f)	Mar-19 (g)	Apr-19 (h)	May-19 (i)	Jun-19 (j)	Jul-19 (k)	Aug-19 (l)	Total Sep 18-Aug19 (m)
	Residential non-heat													
(1)	Number of Customers	17,323	17,314	17,273	17,225	17,144	17,034	16,952	16,842	16,791	16,742	16,707	16,686	
(2)	Final Revenue Requirement	$368,007	$384,077	$425,923	$501,921	$555,147	$541,979	$643,397	$556,109	$455,448	$394,941	$360,969	$352,010	
(3)	Revenue Per Customer	$21.24	$22.18	$24.66	$29.14	$32.38	$31.82	$37.95	$33.02	$27.12	$23.59	$21.61	$21.10	**$326**
	Residential heat													
(4)	Number of Customers	223,841	224,029	224,567	225,660	227,181	228,469	229,303	229,423	229,132	228,571	227,825	227,183	
(5)	Final Revenue Requirement	$6,231,581	$6,890,973	$11,056,072	$17,546,498	$23,225,668	$25,109,730	$22,336,434	$16,442,457	$10,591,896	$7,436,482	$6,340,550	$6,101,556	
(6)	Revenue Per Customer	$27.84	$30.76	$49.23	$77.76	$102.23	$109.90	$97.41	$71.67	$46.23	$32.53	$27.83	$26.86	**$700**
	Small C&I													
(7)	Number of Customers	19,003	18,915	18,966	19,086	19,289	19,487	19,601	19,608	19,544	19,429	19,272	19,117	
(8)	Final Revenue Requirement	$908,893	$967,869	$1,305,389	$2,172,846	$2,766,460	$2,877,756	$2,673,556	$2,021,857	$1,295,371	$1,066,996	$906,427	$889,412	
(9)	Revenue Per Customer	$47.83	$51.17	$68.83	$113.85	$143.42	$147.68	$136.40	$103.11	$66.28	$54.92	$47.03	$46.52	**$1,027**
	Medium C&I													
(10)	Number of Customers	5,146	5,153	5,162	5,173	5,188	5,201	5,211	5,220	5,227	5,236	5,244	5,253	
(11)	Final Revenue Requirement	$1,541,212	$1,726,881	$2,100,104	$2,935,170	$3,527,048	$3,409,953	$3,320,209	$2,701,745	$2,069,324	$1,598,626	$1,605,883	$1,604,252	
(12)	Revenue Per Customer	$299.50	$335.12	$406.84	$567.40	$679.85	$655.63	$637.15	$517.58	$395.89	$305.31	$306.23	$305.40	**$5,412**
	Revenue Proof													
(13)	Calculated Revenue	$9,049,693	$9,969,800	$14,887,488	$23,156,435	$30,074,323	$31,939,418	$28,973,596	$21,722,168	$14,412,039	$10,497,045	$9,213,829	$8,947,230	$212,843,064
(14)	Target Revenue for Decoupled Rate Classes													$212,843,070
(15)	**Difference**													**($6)**

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Bill Impacts at the Proposed Pricing Changes

National Grid - RI Gas Bill Impact Analysis with Various Levels of Consumption:

Residential Heating:

Line No.		Annual Consumption (Therms)	Proposed Rates [1]	Current Rates [1]	Difference	% Chg	Difference due to: Base Rates	GCR	DAC Base DAC	DAC ISR	EE	LIHEAP	GET
							(f)	(g)	(h)	(i)	(j)	(k)	(l)
7		548	$911.94	$864.16	$47.78	5.5%	$111.14	($1.83)	$4.52	($66.92)	($0.56)	$0.00	$1.43
8		608	$989.02	$939.43	$49.59	5.3%	$119.97	($1.99)	$4.98	($74.25)	($0.61)	$0.00	$1.49
9		667	$1,064.81	$1,013.58	$51.23	5.1%	$128.51	($2.20)	$5.47	($81.43)	($0.65)	$0.00	$1.54
10		726	$1,140.60	$1,085.88	$54.71	5.0%	$138.87	($2.40)	$5.96	($88.64)	($0.72)	$0.00	$1.64
11		785	$1,216.39	$1,156.69	$59.70	5.2%	$150.73	($2.59)	$6.42	($95.86)	($0.79)	$0.00	$1.79
12	**Average Customer**	**845**	**$1,293.49**	**$1,226.67**	**$66.82**	**5.4%**	$164.72	($2.78)	$6.91	($103.18)	($0.85)	$0.00	$2.00
13		905	$1,370.54	$1,296.59	$73.96	5.7%	$178.71	($2.98)	$7.41	($110.49)	($0.91)	$0.00	$2.22
14		964	$1,446.35	$1,365.30	$81.05	5.9%	$192.56	($3.17)	$7.90	($117.71)	($0.96)	$0.00	$2.43
15		1,023	$1,522.15	$1,433.66	$88.49	6.2%	$206.74	($3.36)	$8.37	($124.92)	($1.00)	$0.00	$2.65
16		1,082	$1,597.96	$1,501.17	$96.78	6.4%	$221.76	($3.57)	$8.88	($132.12)	($1.07)	$0.00	$2.90
17		1,142	$1,675.05	$1,569.25	$105.80	6.7%	$237.58	($3.78)	$9.40	($139.44)	($1.13)	$0.00	$3.17

Residential Heating Low Income:

		Annual Consumption (Therms)	Proposed Rates [1]	Current Rates [1]	Difference	% Chg	Difference due to: Base Rates	Total Bill Discount	GCR	DAC Base DAC	DAC ISR	EE	LIHEAP	GET
22		548	$771.10	$821.75	($50.65)	-6.2%	$152.28	($131.99)	($1.83)	($0.10)	($66.92)	($0.56)	$0.00	($1.52)
23		608	$836.20	$894.19	($58.00)	-6.5%	$163.85	($143.14)	($1.99)	($0.12)	($74.25)	($0.61)	$0.00	($1.74)
24		667	$900.18	$965.55	($65.37)	-6.8%	$175.09	($154.09)	($2.20)	($0.13)	($81.43)	($0.65)	$0.00	($1.96)
25		726	$964.15	$1,035.26	($71.11)	-6.9%	$187.98	($165.04)	($2.40)	($0.15)	($88.64)	($0.72)	$0.00	($2.13)
26		785	$1,028.16	$1,103.62	($75.46)	-6.8%	$202.21	($176.00)	($2.59)	($0.17)	($95.86)	($0.79)	$0.00	($2.26)
27	**Average Customer**	**845**	**$1,093.26**	**$1,171.30**	**($78.04)**	**-6.7%**	$218.42	($187.14)	($2.78)	($0.17)	($103.18)	($0.85)	$0.00	($2.34)
28		905	$1,158.30	$1,238.94	($80.64)	-6.5%	$234.63	($198.27)	($2.98)	($0.19)	($110.49)	($0.91)	$0.00	($2.42)
29		964	$1,222.30	$1,305.40	($83.11)	-6.4%	$250.65	($209.23)	($3.17)	($0.20)	($117.71)	($0.96)	$0.00	($2.49)
30		1,023	$1,286.32	$1,371.56	($85.24)	-6.2%	$266.98	($220.19)	($3.36)	($0.20)	($124.92)	($1.00)	$0.00	($2.56)
31		1,082	$1,350.31	$1,436.95	($86.64)	-6.0%	$284.06	($231.14)	($3.57)	($0.20)	($132.12)	($1.07)	$0.00	($2.60)
32		1,142	$1,415.39	$1,502.93	($87.54)	-5.8%	$301.91	($242.28)	($3.78)	($0.19)	($139.44)	($1.13)	$0.00	($2.63)

Footnote 1 - See Page 6 for detail of proposed and current rates used in bill impacts

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National Grid - RI Gas Bill Impact Analysis with Various Levels of Consumption:

Residential Non-Heating:

	Annual Consumption (Therms)	Proposed Rates [1]	Current Rates [1]	Difference	% Chg	Difference due to: Base Rates	GCR	DAC Base DAC	DAC ISR	EE	LIHEAP	GET
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
	144	$390.45	$356.75	$33.70	9.4%	$59.63	($0.47)	$1.13	($27.46)	($0.14)	$0.00	$1.01
	158	$408.17	$374.81	$33.36	8.9%	$61.93	($0.50)	$1.23	($30.15)	($0.15)	$0.00	$1.00
	172	$425.89	$392.89	$33.01	8.4%	$64.23	($0.53)	$1.33	($32.83)	($0.18)	$0.00	$0.99
	189	$447.43	$414.83	$32.60	7.9%	$67.01	($0.62)	$1.49	($36.08)	($0.18)	$0.00	$0.98
	202	$463.90	$431.61	$32.30	7.5%	$69.15	($0.64)	$1.58	($38.56)	($0.20)	$0.00	$0.97
Average Customer	220	**$486.72**	**$454.87**	**$31.85**	**7.0%**	$72.10	($0.71)	$1.72	($41.98)	($0.24)	$0.00	$0.96
	238	$509.54	$478.08	$31.46	6.6%	$75.06	($0.75)	$1.86	($45.41)	($0.24)	$0.00	$0.94
	251	$526.01	$494.83	$31.17	6.3%	$77.19	($0.78)	$1.96	($47.89)	($0.24)	$0.00	$0.94
	268	$547.54	$516.84	$30.70	5.9%	$79.98	($0.85)	$2.06	($51.14)	($0.27)	$0.00	$0.92
	282	$565.29	$534.92	$30.37	5.7%	$82.28	($0.91)	$2.20	($53.82)	($0.29)	$0.00	$0.91
	297	$584.25	$554.24	$30.01	5.4%	$84.74	($0.96)	$2.31	($56.67)	($0.31)	$0.00	$0.90

Residential Non-Heating Low Income:

	Annual Consumption (Therms)	Proposed Rates [1]	Current Rates [1]	Difference	% Chg	Difference due to: Base Rates	Total Bill Discount	GCR	DAC Base DAC	DAC ISR	EE	LIHEAP	GET
	144	$330.83	$334.15	($3.32)	-1.0%	$81.55	($56.63)	($0.47)	($0.07)	($27.46)	($0.14)	$0.00	($0.10)
	158	$345.80	$351.58	($5.78)	-1.6%	$84.46	($59.19)	($0.50)	($0.08)	($30.15)	($0.15)	$0.00	($0.17)
	172	$360.76	$369.02	($8.26)	-2.2%	$87.38	($61.75)	($0.53)	($0.09)	($32.83)	($0.18)	$0.00	($0.25)
	189	$378.93	$390.19	($11.27)	-2.9%	$90.91	($64.86)	($0.62)	($0.10)	($36.08)	($0.18)	$0.00	($0.34)
	202	$392.85	$406.38	($13.53)	-3.3%	$93.62	($67.25)	($0.64)	($0.09)	($38.56)	($0.20)	$0.00	($0.41)
Average Customer	**220**	**$412.10**	**$428.83**	**($16.72)**	**-3.9%**	$97.36	($70.54)	($0.71)	($0.11)	($41.98)	($0.24)	$0.00	($0.50)
	238	$431.37	$451.23	($19.85)	-4.4%	$101.10	($73.84)	($0.75)	($0.12)	($45.41)	($0.24)	$0.00	($0.60)
	251	$445.29	$467.39	($22.10)	-4.7%	$103.81	($76.22)	($0.78)	($0.11)	($47.89)	($0.24)	$0.00	($0.66)
	268	$463.45	$488.63	($25.17)	-5.2%	$107.34	($79.33)	($0.85)	($0.17)	($51.14)	($0.27)	$0.00	($0.76)
	282	$478.42	$506.08	($27.66)	-5.5%	$110.26	($81.89)	($0.91)	($0.17)	($53.82)	($0.29)	$0.00	($0.83)
	297	$494.45	$524.72	($30.27)	-5.8%	$113.38	($84.64)	($0.96)	($0.16)	($56.67)	($0.31)	$0.00	($0.91)

Footnote 1 - See Page 6 for detail of proposed and current rates used in bill impacts

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National Grid - RI Gas Bill Impact Analysis with Various Levels of Consumption:

C & I Small:

	Annual Consumption (Therms)	Proposed Rates [1]	Current Rates [1]	Difference	% Chg	Difference due to: Base Rates	GCR	DAC Base DAC	DAC ISR	EE	LIHEAP	GET
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
	830	$1,396.08	$1,379.14	$16.93	1.2%	$123.41	($2.74)	$6.61	($110.14)	($0.71)	$0.00	$0.51
	919	$1,498.27	$1,479.80	$18.46	1.2%	$136.37	($3.04)	$7.35	($121.95)	($0.82)	$0.00	$0.55
	1,010	$1,602.77	$1,583.50	$19.27	1.2%	$148.88	($3.33)	$8.08	($134.02)	($0.92)	$0.00	$0.58
	1,099	$1,704.97	$1,681.23	$23.74	1.4%	$164.71	($3.61)	$8.77	($145.85)	($0.99)	$0.00	$0.71
	1,187	$1,806.04	$1,775.89	$30.15	1.7%	$182.20	($3.91)	$9.53	($157.50)	($1.07)	$0.00	$0.90
Average Customer	**1,277**	**$1,909.37**	**$1,869.39**	**$39.97**	**2.1%**	$203.39	($4.22)	$10.21	($169.45)	($1.15)	$0.00	$1.20
	1,367	$2,012.72	$1,962.86	$49.86	2.5%	$224.57	($4.51)	$10.92	($181.39)	($1.23)	$0.00	$1.50
	1,456	$2,114.89	$2,055.31	$59.58	2.9%	$245.51	($4.81)	$11.62	($193.20)	($1.32)	$0.00	$1.79
	1,544	$2,215.96	$2,146.69	$69.27	3.2%	$266.19	($5.07)	$12.35	($204.88)	($1.39)	$0.00	$2.08
	1,635	$2,320.42	$2,241.18	$79.24	3.5%	$287.62	($5.38)	$13.09	($216.98)	($1.49)	$0.00	$2.38
	1,725	$2,423.79	$2,334.66	$89.14	3.8%	$308.81	($5.69)	$13.80	($228.91)	($1.55)	$0.00	$2.67

C & I Medium:

	Annual Consumption (Therms)	Proposed Rates [1]	Current Rates [1]	Difference	% Chg	Difference due to: Base Rates	GCR	DAC Base DAC	DAC ISR	EE	LIHEAP	GET
	6,907	$8,342.45	$7,862.85	$479.60	6.1%	$1,052.31	($22.78)	$56.63	($614.74)	($6.21)	$0.00	$14.39
	7,650	$9,125.82	$8,614.53	$511.29	5.9%	$1,146.17	($25.23)	$62.74	($680.86)	($6.87)	$0.00	$15.34
	8,391	$9,906.58	$9,363.83	$542.75	5.8%	$1,239.71	($27.68)	$68.80	($746.82)	($7.54)	$0.00	$16.28
	9,136	$10,691.87	$10,117.42	$574.45	5.7%	$1,333.79	($30.15)	$74.90	($813.11)	($8.22)	$0.00	$17.23
	9,880	$11,476.18	$10,870.03	$606.16	5.6%	$1,427.76	($32.60)	$81.02	($879.31)	($8.90)	$0.00	$18.18
Average Customer	**10,623**	**$12,259.57**	**$11,621.78**	**$637.79**	**5.5%**	$1,521.62	($35.02)	$87.08	($945.46)	($9.56)	$0.00	$19.13
	11,366	$13,042.95	$12,373.51	$669.44	5.4%	$1,615.48	($37.50)	$93.21	($1,011.60)	($10.23)	$0.00	$20.08
	12,111	$13,828.24	$13,127.08	$701.16	5.3%	$1,709.56	($39.96)	$99.31	($1,077.89)	($10.89)	$0.00	$21.03
	12,855	$14,612.53	$13,879.70	$732.82	5.3%	$1,803.53	($42.43)	$105.39	($1,144.09)	($11.56)	$0.00	$21.98
	13,596	$15,393.36	$14,629.00	$764.36	5.2%	$1,897.07	($44.86)	$111.49	($1,210.04)	($12.23)	$0.00	$22.93
	14,340	$16,177.66	$15,381.68	$795.98	5.2%	$1,991.04	($47.34)	$117.59	($1,276.26)	($12.93)	$0.00	$23.88

Footnote 1 - See Page 6 for detail of proposed and current rates used in bill impacts

THE NARRAGANSETT ELECTRIC COMPANY
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National Grid - RI Gas Bill Impact Analysis with Various Levels of Consumption:

C & I LLF Large:

	Annual Consumption (Therms)	Proposed Rates [1]	Current Rates [1]	Difference	% Chg	Difference due to: Base Rates	GCR	DAC Base DAC	DAC ISR	EE	LIHEAP	GET
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
	37,587	$42,207.59	$39,772.33	$2,435.27	6.1%	$5,391.69	($124.01)	$308.22	($3,179.88)	($33.81)	$0.00	$73.06
	41,634	$46,484.25	$43,820.14	$2,664.11	6.1%	$5,939.87	($137.38)	$341.41	($3,522.24)	($37.47)	$0.00	$79.92
	45,683	$50,763.41	$47,870.30	$2,893.12	6.0%	$6,488.37	($150.78)	$374.61	($3,864.78)	($41.10)	$0.00	$86.79
	49,731	$55,041.70	$51,919.58	$3,122.12	6.0%	$7,036.76	($164.10)	$407.77	($4,207.23)	($44.74)	$0.00	$93.66
	53,777	$59,317.40	$55,966.54	$3,350.86	6.0%	$7,584.81	($177.48)	$440.94	($4,549.53)	($48.41)	$0.00	$100.53
Average Customer	**57,825**	**$63,595.71**	**$60,015.80**	**$3,579.92**	**6.0%**	$8,133.20	($190.83)	$474.18	($4,891.99)	($52.04)	$0.00	$107.40
	61,873	$67,873.93	$64,065.08	$3,808.86	5.9%	$8,681.58	($204.19)	$507.34	($5,234.46)	($55.68)	$0.00	$114.27
	65,920	$72,150.60	$68,112.86	$4,037.74	5.9%	$9,229.76	($217.53)	$540.54	($5,576.83)	($59.33)	$0.00	$121.13
	69,967	$76,427.93	$72,161.32	$4,266.61	5.9%	$9,778.02	($230.91)	$573.71	($5,919.22)	($62.99)	$0.00	$128.00
	74,016	$80,707.12	$76,211.45	$4,495.68	5.9%	$10,326.53	($244.26)	$606.92	($6,261.76)	($66.62)	$0.00	$134.87
	78,063	$84,983.79	$80,259.21	$4,724.58	5.9%	$10,874.71	($257.59)	$640.11	($6,604.14)	($70.24)	$0.00	$141.74

C & I HLF Large:

	Annual Consumption (Therms)	Proposed Rates [1]	Current Rates [1]	Difference	% Chg	Difference due to: Base Rates	GCR	DAC Base DAC	DAC ISR	EE	LIHEAP	GET
	41,956	$39,719.11	$37,930.84	$1,788.28	4.7%	$4,952.69	($134.28)	$344.02	($3,390.04)	($37.76)	$0.00	$53.65
	46,471	$43,726.24	$41,778.76	$1,947.48	4.7%	$5,453.40	($148.72)	$381.03	($3,754.83)	($41.82)	$0.00	$58.42
	50,991	$47,737.36	$45,630.55	$2,106.81	4.6%	$5,954.60	($163.17)	$418.14	($4,120.07)	($45.90)	$0.00	$63.20
	55,507	$51,745.23	$49,479.25	$2,265.98	4.6%	$6,455.41	($177.61)	$455.14	($4,484.96)	($49.98)	$0.00	$67.98
	60,028	$55,757.12	$53,331.81	$2,425.31	4.5%	$6,956.72	($192.10)	$492.24	($4,850.25)	($54.06)	$0.00	$72.76
Average Customer	**64,545**	**$59,765.85**	**$57,181.30**	**$2,584.56**	**4.5%**	$7,457.63	($206.56)	$529.26	($5,215.23)	($58.08)	$0.00	$77.54
	69,062	$63,774.56	$61,030.80	$2,743.76	4.5%	$7,958.54	($221.01)	$566.30	($5,580.23)	($62.15)	$0.00	$82.31
	73,583	$67,786.46	$64,883.31	$2,903.15	4.5%	$8,459.85	($235.47)	$603.38	($5,945.50)	($66.20)	$0.00	$87.09
	78,099	$71,794.33	$68,732.00	$3,062.32	4.5%	$8,960.65	($249.91)	$640.39	($6,310.39)	($70.29)	$0.00	$91.87
	82,619	$75,805.46	$72,583.83	$3,221.63	4.4%	$9,461.86	($264.38)	$677.49	($6,675.62)	($74.37)	$0.00	$96.65
	87,137	$79,815.90	$76,434.87	$3,381.03	4.4%	$9,962.98	($278.84)	$714.53	($7,040.66)	($78.41)	$0.00	$101.43

Footnote 1 - See Page 6 for detail of proposed and current rates used in bill impacts

THE NARRAGANSETT ELECTRIC COMPANY
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National Grid - RI Gas Bill Impact Analysis with Various Levels of Consumption:

C & I LLF Extra-Large:

	Annual Consumption (Therms)	Proposed Rates [1]	Current Rates [1]	Difference	% Chg	Difference due to: Base Rates	GCR	DAC Base DAC	DAC ISR	EE	LIHEAP	GET
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
	233,835	$191,587.82	$185,168.50	$6,419.32	3.5%	$10,856.65	($771.65)	$1,940.83	($5,588.66)	($210.43)	$0.00	$192.58
	259,019	$211,554.26	$204,543.64	$7,010.62	3.4%	$11,928.94	($854.78)	$2,149.83	($6,190.56)	($233.13)	$0.00	$210.32
	284,197	$231,516.63	$223,914.59	$7,602.05	3.4%	$13,001.07	($937.86)	$2,358.85	($6,792.30)	($255.77)	$0.00	$228.06
	309,381	$251,483.07	$243,289.65	$8,193.42	3.4%	$14,073.37	($1,020.98)	$2,567.87	($7,394.19)	($278.45)	$0.00	$245.80
	334,562	$271,447.50	$262,662.70	$8,784.80	3.3%	$15,145.58	($1,104.04)	$2,776.87	($7,996.03)	($301.12)	$0.00	$263.54
Average Customer	**359,745**	**$291,413.28**	**$282,037.08**	**$9,376.20**	**3.3%**	$16,217.84	($1,187.14)	$2,985.86	($8,597.90)	($323.75)	$0.00	$281.29
	384,928	$311,379.05	$301,411.44	$9,967.61	3.3%	$17,290.11	($1,270.26)	$3,194.93	($9,199.78)	($346.42)	$0.00	$299.03
	410,110	$331,344.16	$320,785.21	$10,558.95	3.3%	$18,362.35	($1,353.38)	$3,403.93	($9,801.63)	($369.09)	$0.00	$316.77
	435,293	$351,309.95	$340,159.55	$11,150.39	3.3%	$19,434.62	($1,436.44)	$3,612.94	($10,403.50)	($391.74)	$0.00	$334.51
	460,471	$371,272.26	$359,530.63	$11,741.63	3.3%	$20,506.74	($1,519.57)	$3,821.90	($11,005.26)	($414.43)	$0.00	$352.25
	485,655	$391,238.75	$378,905.70	$12,333.05	3.3%	$21,579.04	($1,602.67)	$4,030.95	($11,607.17)	($437.09)	$0.00	$369.99

C & I HLF Extra-Large:

	Annual Consumption (Therms)	Proposed Rates [1]	Current Rates [1]	Difference	% Chg	Difference due to: Base Rates	GCR	DAC Base DAC	DAC ISR	EE	LIHEAP	GET
	486,528	$351,470.77	$341,493.68	$9,977.09	2.9%	$18,143.36	($1,556.89)	$4,086.84	($10,557.66)	($437.87)	$0.00	$299.31
	538,924	$388,654.97	$377,703.31	$10,951.66	2.9%	$20,000.39	($1,724.57)	$4,526.97	($11,694.65)	($485.03)	$0.00	$328.55
	591,320	$425,838.37	$413,912.24	$11,926.13	2.9%	$21,857.33	($1,892.22)	$4,967.08	($12,831.64)	($532.20)	$0.00	$357.78
	643,718	$463,023.92	$450,123.12	$12,900.80	2.9%	$23,714.41	($2,059.89)	$5,407.27	($13,968.69)	($579.33)	$0.00	$387.02
	696,109	$500,204.15	$486,328.97	$13,875.18	2.9%	$25,571.22	($2,227.55)	$5,847.31	($15,105.56)	($626.49)	$0.00	$416.26
Average Customer	**748,506**	**$537,388.97**	**$522,539.23**	**$14,849.74**	**2.8%**	$27,428.28	($2,395.21)	$6,287.42	($16,242.57)	($673.67)	$0.00	$445.49
	800,903	$574,573.89	$558,749.55	$15,824.34	2.8%	$29,285.34	($2,562.90)	$6,727.58	($17,379.60)	($720.81)	$0.00	$474.73
	853,294	$611,754.12	$594,955.36	$16,798.76	2.8%	$31,142.14	($2,730.56)	$7,167.68	($18,516.48)	($767.98)	$0.00	$503.96
	905,692	$648,939.63	$631,166.23	$17,773.40	2.8%	$32,999.23	($2,898.21)	$7,607.83	($19,653.51)	($815.14)	$0.00	$533.20
	958,088	$686,123.06	$667,375.19	$18,747.87	2.8%	$34,856.16	($3,065.87)	$8,047.94	($20,790.53)	($862.27)	$0.00	$562.44
	1,010,485	$723,307.92	$703,585.51	$19,722.42	2.8%	$36,713.22	($3,233.57)	$8,488.08	($21,927.53)	($909.46)	$0.00	$591.67

Footnote 1 - See Page 6 for detail of proposed and current rates used in bill impacts

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Summary of Current and Proposed Rates

			Residential Non Heating	Low Income Residential Non Heating	Residential Heating	Low Income Residential Heating	Small C&I	Medium C&I	Large Low Load Factor C&I	Large High Load Factor C&I	XLarge Low Load Factor C&I	XLarge High Load Factor C&I
	Current Rates in effect November 1, 2017	**Reference**	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
161	Customer Charge	Docket No. 4323	$13.00	$11.70	$13.00	$11.70	$22.00	$70.00	$175.00	$175.00	$425.00	$425.00
	Peak											
162	Headblock	Docket No. 4323	$0.4386	$0.3947	$0.4672	$0.4205	$0.5431	$0.1865	$0.1727	$0.1007	$0.0328	$0.0256
163	Tailblock	Docket No. 4323	$0.0000	$0.0000	$0.3010	$0.2709	$0.2242					
164	Off Peak											
165	Headblock	Docket No. 4323	$0.4386	$0.3947	$0.4672	$0.4205	$0.5431	$0.1865	$0.1727	$0.1007	$0.0328	$0.0256
166	Tailblock	Docket No. 4323			$0.3010	$0.2709	$0.2242					
167	Demand	Docket No. 4323						$1.3000	$1.3000	$1.8000	$1.3000	$1.8000
168	GCR	Docket No. 4719	$0.4859	$0.4859	$0.5291	$0.5291	$0.5291	$0.5291	$0.5291	$0.4859	$0.5291	$0.4859
169	Base DAC	Docket No. 4708	$0.0481	$0.0481	$0.0209	$0.0209	$0.0310	$0.0202	$0.0140	$0.0098	($0.0004)	($0.0020)
170	ISR Factor	Docket No. 4678	$0.1908	$0.1908	$0.1221	$0.1221	$0.1327	$0.0890	$0.0846	$0.0808	$0.0239	$0.0217
171	Total DAC		$0.2389	$0.2389	$0.1430	$0.1430	$0.1637	$0.1092	$0.0986	$0.0906	$0.0235	$0.0197
172	Energy Efficiency Factor	Docket No. 4654	$0.0888	$0.0888	$0.0888	$0.0888	$0.0726	$0.0726	$0.0726	$0.0726	$0.0726	$0.0726
173	LIHEAP Enhancement		$0.81	$0.81	$0.81	$0.81	$0.81	$0.81	$0.81	$0.81	$0.81	$0.81
	Proposed Rates											
174	Customer Charge	Schedule PMN-7	$16.00	$16.00	$16.00	$16.00	$35.00	$85.00	$200.00	$200.00	$500.00	$500.00
175	Peak											
176	Volumetric	Schedule PMN-7	$0.6027	$0.6027	$0.6034	$0.6034	$0.4773	$0.2999	$0.2932	$0.2009	$0.0618	$0.0518
177	Off Peak											
178	Volumetric	Schedule PMN-7	$0.6027	$0.6027	$0.6034	$0.6034	$0.4773	$0.2999	$0.2932	$0.2009	$0.0618	$0.0518
179	Demand	Schedule PMN-7						$1.5000	$1.5000	$2.0500	$1.5000	$2.0500
180	GCR	Workpaper PMN-8 Pg 1	$0.4827	$0.4827	$0.5258	$0.5258	$0.5258	$0.5258	$0.5258	$0.4827	$0.5258	$0.4827
181	Base DAC	Workpaper PMN-8 Pg 6, Section 2, Column (E) excluding LIDRF	$0.0476	$0.0475	$0.0208	$0.0207	$0.0307	$0.0201	$0.0139	$0.0097	($0.0004)	($0.0019)
	Low Income Discount											
171	Recovery Factor (LIDRF)	Workpaper PMN-8 Pg 6 Ln 3	$0.0083		$0.0083		$0.0083	$0.0083	$0.0083	$0.0083	$0.0083	$0.0083
172	ISR Factor		$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000
173	Total DAC	Workpaper PMN-8 Pg 6 Ln 16-25	$0.0559	$0.0475	$0.0291	$0.0207	$0.0390	$0.0284	$0.0222	$0.0180	$0.0079	$0.0064
174	Energy Efficiency Factor	Workpaper PMN-8 Pg 8 Ln 6	$0.0878	$0.0878	$0.0878	$0.0878	$0.0717	$0.0717	$0.0717	$0.0717	$0.0717	$0.0717
175	LIHEAP Enhancement		$0.81	$0.81	$0.81	$0.81	$0.81	$0.81	$0.81	$0.81	$0.81	$0.81

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Allocator Backup

Total Delivery Cost of Service Study – Including Non-Firm Customers

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National Grid Rhode Island

Calculation of RSUM Allocation Factor

Ia. Normalized Sales (dth) Cycle Billed

Month	RNH	RH	Small	Medium	Large Low	Large High	XL Low	XL High	Total
Jan-19	46,597	3,246,731	438,162	793,161	314,857	93,779	17,244	59,928	5,010,458
Feb-19	44,705	3,555,556	460,027	764,855	330,492	86,156	17,797	54,665	5,314,253
Mar-19	61,750	3,093,733	416,409	743,877	297,927	83,956	16,157	56,115	4,769,924
Apr-19	47,559	2,116,621	279,819	543,463	196,244	73,245	11,425	55,920	3,324,296
May-19	30,993	1,147,793	128,081	355,479	115,374	70,458	6,858	49,302	1,904,339
Jun-19	21,083	626,342	81,077	205,320	51,560	63,187	3,832	48,274	1,100,676
Jul-19	15,540	446,694	48,587	156,797	28,046	49,840	1,481	43,584	790,569
Aug-19	14,109	408,788	46,159	160,197	25,486	44,753	1,245	43,148	743,886
Sep-18	15,072	439,199	51,076	144,327	36,371	44,143	1,657	52,636	784,481
Oct-18	17,762	547,980	64,078	189,328	46,900	49,831	2,830	46,869	965,578
Nov-18	24,814	1,236,825	134,418	335,127	125,056	59,092	6,703	52,140	1,974,175
Dec-18	37,551	2,309,569	315,281	600,558	252,347	75,680	13,754	57,876	3,662,616
	377,535	19,175,829	2,463,176	4,992,488	1,820,660	794,120	100,984	620,459	30,345,251
	377,535	19,175,829	2,463,176	4,992,488	1,820,660	794,120	100,984	620,459	30,345,251

IIa. Normalized Sales per Billing Day

Month	Billing Days	RNH	RH	Small	Medium	Large Low	Large High	XL Low	XL High					Total
Jan-19	31.05	1,501	104,565	14,111	25,545	10,140	3,020	555	1,930	0	0	0	0	161,367
Feb-19	29.40	1,521	120,937	15,647	26,015	11,241	2,930	605	1,859	0	0	0	0	180,757
Mar-19	29.90	2,065	103,469	13,927	24,879	9,964	2,808	540	1,877	0	0	0	0	159,529
Apr-19	31.15	1,527	67,949	8,983	17,447	6,300	2,351	367	1,795	0	0	0	0	106,719
May-19	30.35	1,021	37,819	4,220	11,713	3,801	2,322	226	1,624	0	0	0	0	62,746
Jun-19	30.80	685	20,336	2,632	6,666	1,674	2,052	124	1,567	0	0	0	0	35,736
Jul-19	31.35	496	14,249	1,550	5,002	895	1,590	47	1,390	0	0	0	0	25,218
Aug-19	29.75	474	13,741	1,552	5,385	857	1,504	42	1,450	0	0	0	0	25,005
Sep-18	30.25	498	14,519	1,688	4,771	1,202	1,459	55	1,740	0	0	0	0	25,933
Oct-18	30.10	590	18,205	2,129	6,290	1,558	1,656	94	1,557	0	0	0	0	32,079
Nov-18	29.65	837	41,714	4,534	11,303	4,218	1,993	226	1,759	0	0	0	0	66,583
Dec-18	31.20	1,204	74,025	10,105	19,249	8,088	2,426	441	1,855	0	0	0	0	117,392
	364.95													

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Calculation of RSUM Allocation Factor

Ib. Normalized Sales (dth) Monthly Billed

Month	RNH	RH	Small	Medium	Large Low	Large High	XL Low	XL High	Total	
Jan-19	0	0	0	78,020	149,345	49,821	197,300	603,515	1,078,001	
Feb-19	0	0	0	66,391	129,855	44,378	173,618	518,000	932,241	
Mar-19	0	0	0	59,966	112,188	47,831	153,616	547,475	921,076	
Apr-19	0	0	0	49,557	64,337	42,880	94,739	547,929	799,444	
May-19	0	0	0	30,013	31,674	38,523	53,399	506,196	659,805	
Jun-19	0	0	0	20,940	18,873	38,113	24,477	496,512	598,915	
Jul-19	0	0	0	20,431	13,936	46,127	17,891	510,636	609,021	
Aug-19	0	0	0	18,775	13,898	46,954	17,787	503,527	600,941	
Sep-18	0	0	0	21,408	18,967	34,094	23,902	469,060	567,430	
Oct-18	0	0	0	35,110	49,002	36,631	75,069	501,048	696,861	
Nov-18	0	0	0	50,601	84,740	39,761	115,296	529,862	820,259	
Dec-18	0	0	0	80,985	129,240	51,042	175,055	606,891	1,043,214	
				532,197	816,055	516,158	1,122,150	6,340,650	9,327,209	39,672,460
				532,197	816,055	516,158	1,122,150	6,340,650	9,327,209	39,672,460

IIb. Normalized Sales per Billing Day

Month	Billing Days	RNH	RH	Small	Medium	Large Low	Large High	XL Low	XL High					Total
Jan-19	31.00	0	0	0	2,517	4,818	1,607	6,365	19,468	0	0	0	0	34,774
Feb-19	28.00	0	0	0	2,371	4,638	1,585	6,201	18,500	0	0	0	0	33,294
Mar-19	31.00	0	0	0	1,934	3,619	1,543	4,955	17,660	0	0	0	0	29,712
Apr-19	30.00	0	0	0	1,652	2,145	1,429	3,158	18,264	0	0	0	0	26,648
May-19	31.00	0	0	0	968	1,022	1,243	1,723	16,329	0	0	0	0	21,284
Jun-19	30.00	0	0	0	698	629	1,270	816	16,550	0	0	0	0	19,964
Jul-19	31.00	0	0	0	659	450	1,488	577	16,472	0	0	0	0	19,646
Aug-19	31.00	0	0	0	606	448	1,515	574	16,243	0	0	0	0	19,385
Sep-18	30.00	0	0	0	714	632	1,136	797	15,635	0	0	0	0	18,914
Oct-18	31.00	0	0	0	1,133	1,581	1,182	2,422	16,163	0	0	0	0	22,479
Nov-18	30.00	0	0	0	1,687	2,825	1,325	3,843	17,662	0	0	0	0	27,342
Dec-18	31.00	0	0	0	2,612	4,169	1,647	5,647	19,577	0	0	0	0	33,652

Calculation of RSUM Allocation Factor

IIc. Combined Normalized Sales per Billing Day

Month	RNH	RH	Small	Medium	Large Low	Large High	XL Low	XL High					Total	Rank
Jan-19	1,501	104,565	14,111	28,061	14,958	4,627	6,920	21,398	0	0	0	0	196,142	2
Feb-19	1,521	120,937	15,647	28,387	15,879	4,515	6,806	20,359	0	0	0	0	214,051	1
Mar-19	2,065	103,469	13,927	26,813	13,583	4,351	5,496	19,537	0	0	0	0	189,241	3
Apr-19	1,527	67,949	8,983	19,099	8,445	3,781	3,525	20,059	0	0	0	0	133,367	5
May-19	1,021	37,819	4,220	12,681	4,823	3,564	1,949	17,953	0	0	0	0	84,030	7
Jun-19	685	20,336	2,632	7,364	2,303	3,322	940	18,118	0	0	0	0	55,700	8
Jul-19	496	14,249	1,550	5,661	1,344	3,078	624	17,862	0	0	0	0	44,863	10
Aug-19	474	13,741	1,552	5,990	1,305	3,019	616	17,693	0	0	0	0	44,390	12
Sep-18	498	14,519	1,688	5,485	1,835	2,596	852	17,375	0	0	0	0	44,848	11
Oct-18	590	18,205	2,129	7,423	3,139	2,837	2,516	17,720	0	0	0	0	54,558	9
Nov-18	837	41,714	4,534	12,989	7,042	3,318	4,069	19,421	0	0	0	0	93,925	6
Dec-18	1,204	74,025	10,105	21,861	12,257	4,072	6,088	21,432	0	0	0	0	151,044	4

III. Percentage of Sales per Billing Day by Month

Month	RNH	RH	Small	Medium	Large Low	Large High	XL Low	XL High					Total
Jan-19	0.77%	53.31%	7.19%	14.31%	7.63%	2.36%	3.53%	10.91%	0.00%	0.00%	0.00%	0.00%	100.00%
Feb-19	0.71%	56.50%	7.31%	13.26%	7.42%	2.11%	3.18%	9.51%	0.00%	0.00%	0.00%	0.00%	100.00%
Mar-19	1.09%	54.68%	7.36%	14.17%	7.18%	2.30%	2.90%	10.32%	0.00%	0.00%	0.00%	0.00%	100.00%
Apr-19	1.14%	50.95%	6.74%	14.32%	6.33%	2.83%	2.64%	15.04%	0.00%	0.00%	0.00%	0.00%	100.00%
May-19	1.22%	45.01%	5.02%	15.09%	5.74%	4.24%	2.32%	21.37%	0.00%	0.00%	0.00%	0.00%	100.00%
Jun-19	1.23%	36.51%	4.73%	13.22%	4.13%	5.96%	1.69%	32.53%	0.00%	0.00%	0.00%	0.00%	100.00%
Jul-19	1.10%	31.76%	3.45%	12.62%	3.00%	6.86%	1.39%	39.82%	0.00%	0.00%	0.00%	0.00%	100.00%
Aug-19	1.07%	30.95%	3.50%	13.50%	2.94%	6.80%	1.39%	39.86%	0.00%	0.00%	0.00%	0.00%	100.00%
Sep-18	1.11%	32.37%	3.76%	12.23%	4.09%	5.79%	1.90%	38.74%	0.00%	0.00%	0.00%	0.00%	100.00%
Oct-18	1.08%	33.37%	3.90%	13.60%	5.75%	5.20%	4.61%	32.48%	0.00%	0.00%	0.00%	0.00%	100.00%
Nov-18	0.89%	44.41%	4.83%	13.83%	7.50%	3.53%	4.33%	20.68%	0.00%	0.00%	0.00%	0.00%	100.00%
Dec-18	0.80%	49.01%	6.69%	14.47%	8.11%	2.70%	4.03%	14.19%	0.00%	0.00%	0.00%	0.00%	100.00%

Calculation of RSUM Allocation Factor

IV. Sort

Month	Sales/ Billing Day	% of Topline	Increment	Feb-19	Jan-19	Mar-19	Dec-18	Apr-19	Nov-18	May-19	Jun-19	Oct-18	Jul-19	Sep-18	Aug-19
Feb-19	214,051	100.00%	8.37%	8.37%											
Jan-19	196,142	91.63%	3.22%	1.61%	1.61%										
Mar-19	189,241	88.41%	17.85%	5.95%	5.95%	5.95%									
Dec-18	151,044	70.56%	8.26%	2.06%	2.06%	2.06%	2.06%								
Apr-19	133,367	62.31%	18.43%	3.69%	3.69%	3.69%	3.69%	3.69%							
Nov-18	93,925	43.88%	4.62%	0.77%	0.77%	0.77%	0.77%	0.77%	0.77%						
May-19	84,030	39.26%	13.24%	1.89%	1.89%	1.89%	1.89%	1.89%	1.89%	1.89%					
Jun-19	55,700	26.02%	0.53%	0.07%	0.07%	0.07%	0.07%	0.07%	0.07%	0.07%	0.07%				
Oct-18	54,558	25.49%	4.53%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%			
Jul-19	44,863	20.96%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
Sep-18	44,848	20.95%	0.21%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	
Aug-19	44,390	20.74%	20.74%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%
			100.00%	**26.66%**	**18.29%**	**16.68%**	**10.73%**	**8.66%**	**4.98%**	**4.21%**	**2.32%**	**2.25%**	**1.75%**	**1.75%**	**1.73%**

V. RSUM

Month	Total %	RNH	RH	Small	Medium	Large Low	Large High	XL Low	XL High					Total
Feb-19	26.66%	0.19%	15.06%	1.95%	3.54%	1.98%	0.56%	0.85%	2.54%	0.00%	0.00%	0.00%	0.00%	26.66%
Jan-19	18.29%	0.14%	9.75%	1.32%	2.62%	1.39%	0.43%	0.65%	2.00%	0.00%	0.00%	0.00%	0.00%	18.29%
Mar-19	16.68%	0.18%	9.12%	1.23%	2.36%	1.20%	0.38%	0.48%	1.72%	0.00%	0.00%	0.00%	0.00%	16.68%
Dec-18	10.73%	0.09%	5.26%	0.72%	1.55%	0.87%	0.29%	0.43%	1.52%	0.00%	0.00%	0.00%	0.00%	10.73%
Apr-19	8.66%	0.10%	4.41%	0.58%	1.24%	0.55%	0.25%	0.23%	1.30%	0.00%	0.00%	0.00%	0.00%	8.66%
Nov-18	4.98%	0.04%	2.21%	0.24%	0.69%	0.37%	0.18%	0.22%	1.03%	0.00%	0.00%	0.00%	0.00%	4.98%
May-19	4.21%	0.05%	1.89%	0.21%	0.64%	0.24%	0.18%	0.10%	0.90%	0.00%	0.00%	0.00%	0.00%	4.21%
Jun-19	2.32%	0.03%	0.85%	0.11%	0.31%	0.10%	0.14%	0.04%	0.75%	0.00%	0.00%	0.00%	0.00%	2.32%
Oct-18	2.25%	0.02%	0.75%	0.09%	0.31%	0.13%	0.12%	0.10%	0.73%	0.00%	0.00%	0.00%	0.00%	2.25%
Jul-19	1.75%	0.02%	0.56%	0.06%	0.22%	0.05%	0.12%	0.02%	0.70%	0.00%	0.00%	0.00%	0.00%	1.75%
Sep-18	1.75%	0.02%	0.57%	0.07%	0.21%	0.07%	0.10%	0.03%	0.68%	0.00%	0.00%	0.00%	0.00%	1.75%
Aug-19	1.73%	0.02%	0.53%	0.06%	0.23%	0.05%	0.12%	0.02%	0.69%	0.00%	0.00%	0.00%	0.00%	1.73%
Total	**100.00%**	**0.90%**	**50.96%**	**6.63%**	**13.91%**	**7.00%**	**2.86%**	**3.18%**	**14.55%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**100.00%**

National Grid Rhode Island

Calculation of RSUM Allocation Factor

Ia. Normalized Sales (dth) Cycle Billed

Month	RNH	RH	Small	Medium	Large Low	Large High	XL Low	XL High	Total
Jan-19	46,597	3,246,731	438,162	793,161	314,857	93,779	0	0	4,933,286
Feb-19	44,705	3,555,556	460,027	764,855	330,492	86,156	0	0	5,241,791
Mar-19	61,750	3,093,733	416,409	743,877	297,927	83,956	0	0	4,697,652
Apr-19	47,559	2,116,621	279,819	543,463	196,244	73,245	0	0	3,256,950
May-19	30,993	1,147,793	128,081	355,479	115,374	70,458	0	0	1,848,178
Jun-19	21,083	626,342	81,077	205,320	51,560	63,187	0	0	1,048,570
Jul-19	15,540	446,694	48,587	156,797	28,046	49,840	0	0	745,504
Aug-19	14,109	408,788	46,159	160,197	25,486	44,753	0	0	699,492
Sep-18	15,072	439,199	51,076	144,327	36,371	44,143	0	0	730,188
Oct-18	17,762	547,980	64,078	189,328	46,900	49,831	0	0	915,879
Nov-18	24,814	1,236,825	134,418	335,127	125,056	59,092	0	0	1,915,333
Dec-18	37,551	2,309,569	315,281	600,558	252,347	75,680	0	0	3,590,986
	377,535	19,175,829	2,463,176	4,992,488	1,820,660	794,120			29,623,809
	377,535	19,175,829	2,463,176	4,992,488	1,820,660	794,120			29,623,809

IIa. Normalized Sales per Billing Day

Month	Billing Days	RNH	RH	Small	Medium	Large Low	Large High	XL Low	XL High					Total
Jan-19	31.05	1,501	104,565	14,111	25,545	10,140	3,020	0	0	0	0	0	0	158,882
Feb-19	29.40	1,521	120,937	15,647	26,015	11,241	2,930	0	0	0	0	0	0	178,292
Mar-19	29.90	2,065	103,469	13,927	24,879	9,964	2,808	0	0	0	0	0	0	157,112
Apr-19	31.15	1,527	67,949	8,983	17,447	6,300	2,351	0	0	0	0	0	0	104,557
May-19	30.35	1,021	37,819	4,220	11,713	3,801	2,322	0	0	0	0	0	0	60,895
Jun-19	30.80	685	20,336	2,632	6,666	1,674	2,052	0	0	0	0	0	0	34,044
Jul-19	31.35	496	14,249	1,550	5,002	895	1,590	0	0	0	0	0	0	23,780
Aug-19	29.75	474	13,741	1,552	5,385	857	1,504	0	0	0	0	0	0	23,512
Sep-18	30.25	498	14,519	1,688	4,771	1,202	1,459	0	0	0	0	0	0	24,138
Oct-18	30.10	590	18,205	2,129	6,290	1,558	1,656	0	0	0	0	0	0	30,428
Nov-18	29.65	837	41,714	4,534	11,303	4,218	1,993	0	0	0	0	0	0	64,598
Dec-18	31.20	1,204	74,025	10,105	19,249	8,088	2,426	0	0	0	0	0	0	115,096

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Calculation of RSUM Allocation Factor

Ib. Normalized Sales (dth) Monthly Billed

Month	RNH	RH	Small	Medium	Large Low	Large High	XL Low	XL High	Total	
Jan-19	0	0	0	78,020	149,345	49,821	0	0	277,186	
Feb-19	0	0	0	66,391	129,855	44,378	0	0	240,624	
Mar-19	0	0	0	59,966	112,188	47,831	0	0	219,985	
Apr-19	0	0	0	49,557	64,337	42,880	0	0	156,775	
May-19	0	0	0	30,013	31,674	38,523	0	0	100,210	
Jun-19	0	0	0	20,940	18,873	38,113	0	0	77,926	
Jul-19	0	0	0	20,431	13,936	46,127	0	0	80,495	
Aug-19	0	0	0	18,775	13,898	46,954	0	0	79,627	
Sep-18	0	0	0	21,408	18,967	34,094	0	0	74,468	
Oct-18	0	0	0	35,110	49,002	36,631	0	0	120,743	
Nov-18	0	0	0	50,601	84,740	39,761	0	0	175,101	
Dec-18	0	0	0	80,985	129,240	51,042	0	0	261,268	
				532,197	816,055	516,158			1,864,409	31,488,218
				532,197	816,055	516,158			1,864,409	31,488,218

IIb. Normalized Sales per Billing Day

Month	Billing Days	RNH	RH	Small	Medium	Large Low	Large High	XL Low	XL High					Total
Jan-19	31.00	0	0	0	2,517	4,818	1,607	0	0	0	0	0	0	8,941
Feb-19	28.00	0	0	0	2,371	4,638	1,585	0	0	0	0	0	0	8,594
Mar-19	31.00	0	0	0	1,934	3,619	1,543	0	0	0	0	0	0	7,096
Apr-19	30.00	0	0	0	1,652	2,145	1,429	0	0	0	0	0	0	5,226
May-19	31.00	0	0	0	968	1,022	1,243	0	0	0	0	0	0	3,233
Jun-19	30.00	0	0	0	698	629	1,270	0	0	0	0	0	0	2,598
Jul-19	31.00	0	0	0	659	450	1,488	0	0	0	0	0	0	2,597
Aug-19	31.00	0	0	0	606	448	1,515	0	0	0	0	0	0	2,569
Sep-18	30.00	0	0	0	714	632	1,136	0	0	0	0	0	0	2,482
Oct-18	31.00	0	0	0	1,133	1,581	1,182	0	0	0	0	0	0	3,895
Nov-18	30.00	0	0	0	1,687	2,825	1,325	0	0	0	0	0	0	5,837
Dec-18	31.00	0	0	0	2,612	4,169	1,647	0	0	0	0	0	0	8,428

Calculation of RSUM Allocation Factor

IIc. Combined Normalized Sales per Billing Day

Month	RNH	RH	Small	Medium	Large Low	Large High	XL Low	XL High					Total	Rank
Jan-19	1,501	104,565	14,111	28,061	14,958	4,627	0	0	0	0	0	0	167,824	2
Feb-19	1,521	120,937	15,647	28,387	15,879	4,515	0	0	0	0	0	0	186,886	1
Mar-19	2,065	103,469	13,927	26,813	13,583	4,351	0	0	0	0	0	0	164,208	3
Apr-19	1,527	67,949	8,983	19,099	8,445	3,781	0	0	0	0	0	0	109,783	5
May-19	1,021	37,819	4,220	12,681	4,823	3,564	0	0	0	0	0	0	64,128	7
Jun-19	685	20,336	2,632	7,364	2,303	3,322	0	0	0	0	0	0	36,642	8
Jul-19	496	14,249	1,550	5,661	1,344	3,078	0	0	0	0	0	0	26,377	11
Aug-19	474	13,741	1,552	5,990	1,305	3,019	0	0	0	0	0	0	26,081	12
Sep-18	498	14,519	1,688	5,485	1,835	2,596	0	0	0	0	0	0	26,621	10
Oct-18	590	18,205	2,129	7,423	3,139	2,837	0	0	0	0	0	0	34,323	9
Nov-18	837	41,714	4,534	12,989	7,042	3,318	0	0	0	0	0	0	70,435	6
Dec-18	1,204	74,025	10,105	21,861	12,257	4,072	0	0	0	0	0	0	123,524	4

III. Percentage of Sales per Billing Day by Month

Month	RNH	RH	Small	Medium	Large Low	Large High	XL Low	XL High					Total
Jan-19	0.89%	62.31%	8.41%	16.72%	8.91%	2.76%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Feb-19	0.81%	64.71%	8.37%	15.19%	8.50%	2.42%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Mar-19	1.26%	63.01%	8.48%	16.33%	8.27%	2.65%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Apr-19	1.39%	61.89%	8.18%	17.40%	7.69%	3.44%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
May-19	1.59%	58.97%	6.58%	19.77%	7.52%	5.56%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Jun-19	1.87%	55.50%	7.18%	20.10%	6.29%	9.07%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Jul-19	1.88%	54.02%	5.88%	21.46%	5.10%	11.67%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Aug-19	1.82%	52.69%	5.95%	22.97%	5.00%	11.58%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Sep-18	1.87%	54.54%	6.34%	20.60%	6.89%	9.75%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Oct-18	1.72%	53.04%	6.20%	21.63%	9.15%	8.27%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Nov-18	1.19%	59.22%	6.44%	18.44%	10.00%	4.71%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Dec-18	0.97%	59.93%	8.18%	17.70%	9.92%	3.30%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%

Calculation of RSUM Allocation Factor

IV. Sort

Month	Sales/ Billing Day	% of Topline	Increment	Feb-19	Jan-19	Mar-19	Dec-18	Apr-19	Nov-18	May-19	Jun-19	Oct-18	Sep-18	Jul-19	Aug-19
Feb-19	186,886	100.00%	10.20%	10.20%											
Jan-19	167,824	89.80%	1.93%	0.97%	0.97%										
Mar-19	164,208	87.87%	21.77%	7.26%	7.26%	7.26%									
Dec-18	123,524	66.10%	7.35%	1.84%	1.84%	1.84%	1.84%								
Apr-19	109,783	58.74%	21.05%	4.21%	4.21%	4.21%	4.21%	4.21%							
Nov-18	70,435	37.69%	3.37%	0.56%	0.56%	0.56%	0.56%	0.56%	0.56%						
May-19	64,128	34.31%	14.71%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%					
Jun-19	36,642	19.61%	1.24%	0.16%	0.16%	0.16%	0.16%	0.16%	0.16%	0.16%	0.16%				
Oct-18	34,323	18.37%	4.12%	0.46%	0.46%	0.46%	0.46%	0.46%	0.46%	0.46%	0.46%	0.46%			
Sep-18	26,621	14.24%	0.13%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%		
Jul-19	26,377	14.11%	0.16%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	
Aug-19	26,081	13.96%	13.96%	1.16%	1.16%	1.16%	1.16%	1.16%	1.16%	1.16%	1.16%	1.16%	1.16%	1.16%	1.16%
			100.00%	**28.94%**	**18.74%**	**17.77%**	**10.52%**	**8.68%**	**4.47%**	**3.90%**	**1.80%**	**1.65%**	**1.19%**	**1.18%**	**1.16%**

V. RSUM

Month	Total %	RNH	RH	Small	Medium	Large Low	Large High	XL Low	XL High					Total
Feb-19	28.94%	0.24%	18.73%	2.42%	4.40%	2.46%	0.70%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	28.94%
Jan-19	18.74%	0.17%	11.68%	1.58%	3.13%	1.67%	0.52%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	18.74%
Mar-19	17.77%	0.22%	11.20%	1.51%	2.90%	1.47%	0.47%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	17.77%
Dec-18	10.52%	0.10%	6.30%	0.86%	1.86%	1.04%	0.35%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.52%
Apr-19	8.68%	0.12%	5.37%	0.71%	1.51%	0.67%	0.30%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	8.68%
Nov-18	4.47%	0.05%	2.65%	0.29%	0.82%	0.45%	0.21%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.47%
May-19	3.90%	0.06%	2.30%	0.26%	0.77%	0.29%	0.22%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.90%
Jun-19	1.80%	0.03%	1.00%	0.13%	0.36%	0.11%	0.16%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.80%
Oct-18	1.65%	0.03%	0.87%	0.10%	0.36%	0.15%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.65%
Sep-18	1.19%	0.02%	0.65%	0.08%	0.25%	0.08%	0.12%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.19%
Jul-19	1.18%	0.02%	0.64%	0.07%	0.25%	0.06%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.18%
Aug-19	1.16%	0.02%	0.61%	0.07%	0.27%	0.06%	0.13%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.16%
Total	**100.00%**	**1.09%**	**62.00%**	**8.07%**	**16.88%**	**8.51%**	**3.45%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**100.00%**

Proportional Responsibility
Distribution Investment Allocator DISTR

The Proportional Responsibility Method is a capacity allocation procedure which considers the monthly variation in sales by customer class. Months with higher total usage are given more weight than lower usage months. The method was first developed by Gary H. Grainger of Wisconsin Public Service Corporation and published November 9, 1972 in *Public Utilities Fortnightly*.

The Proportional Responsibility ("PR") Method is often used to allocate distribution plant to gas utility customers. Each customer class is assigned capacity-related costs based upon the variation of usage across all twelve months of the test year In this manner, the PR method recognizes that capacity on the distribution system has some value each month throughout the year, though that value is greatly diminished in the summer months when system loads are much lower. By observation, the PR method is generally consistent with the market price for inter-state pipeline capacity as evidenced by the prices commanded for capacity release.

In contrast, the Design Day Allocation Method relates all costs to a single day, a hypothetical day where temperature extremes create the greatest load for which the utility can provide firm delivery service. The Design Day Demand Method is susceptible to errors due to the mis-estimation of class loads under extreme weather conditions. This method assumes that all costs are attributable to a single day, so by inference, there is no value to capacity at any other time. Summer-only users and interruptible customers would have no capacity cost responsibility at any time. In essence, these customers would receive the benefit of free use of the transmission and distribution system. This anomaly is one of the reasons why the FERC has migrated to capacity allocation methods that recognize customer loads throughout the year, such as the Modified Fixed Variable Method.

MAC
1

The Proportional Responsibility Method of Capacity Cost Allocation

"Proportional responsibility," a new capacity cost allocation method, is designed to give a realistic and reasonable distribution of imbedded capacity costs, making it ideal for rate design purposes, rate of return determination, and support in rate cases. Other methods of capacity allocation, including their inherent fallacies, are also discussed.

By GARY H. GRAINGER

THE importance of cost-of-service studies has long been recognized in the electric utility industry. This importance is evident when you consider the numerous uses that are made of these studies, as illustrated by the following list:

Uses of Cost-of-service Studies

1. Determination of rate of return by customer group.
2. Rate design.
3. Sales promotion policy.
4. Support in rate cases before regulatory authorities.
5. Cost trends.
6. Engineering policy.

In the preparation of these studies, the allocation of capacity costs is the most significant part of the study for two reasons. First, capacity costs are generally the largest individual segment of costs, and, second, there is no universally accepted method for allocating these costs.

The remainder of this article is devoted to reviewing some of the common methods of capacity allocation, including a discussion of their inherent fallacies and then the development of a new method of capacity cost allocation that I have chosen to call the proportional responsibility method.

To illustrate some of the more common methods of capacity allocation, assume the customer group load curves and the system load curve shown in Figure I (page 26). Table 1 (page 27) describes the characteristics of each of these customer group loads, and Table 2 (page 27) shows the results of the capacity allocations under various commonly used methods.

Before analyzing the results shown in Table 2, I would like to state briefly the principal criteria of capacity costs. Capacity costs are those created as a result of providing capacity for the customer's maximum demand. In other words, costs associated with property and plant having a specific design or size because of the maximum quantity of power used are considered capacity costs. They are not in any manner related to load factor.

Analyzing the results contained in Table 2 reveals the fallacies of the various methods:

I. *Peak Responsibility*—Allocates all capacity costs on the basis of the loads as they occur at the time of the system peak. This implies that no capacity is required to serve loads A, B, and C since they were not taking service at the time of the system peak. This is incorrect because even without loads D, E, F, and G, there would still be a need for 300 kilowatts of capacity for loads A, B, and C.

II. *Noncoincident Peak*—Allocates all capacity costs on the basis of the individual customer peaks irrespective of the time of occurrence. Table 2 shows that all loads receive an equal share of capacity costs. Referring to the total system curve shown in Figure I, more capacity is needed to meet the six peak hours of 9 to 12 A.M. and 4 to 7 P.M. than any other hours of the day. Therefore, a larger portion of the demand costs should be assigned to the loads

FIGURE I

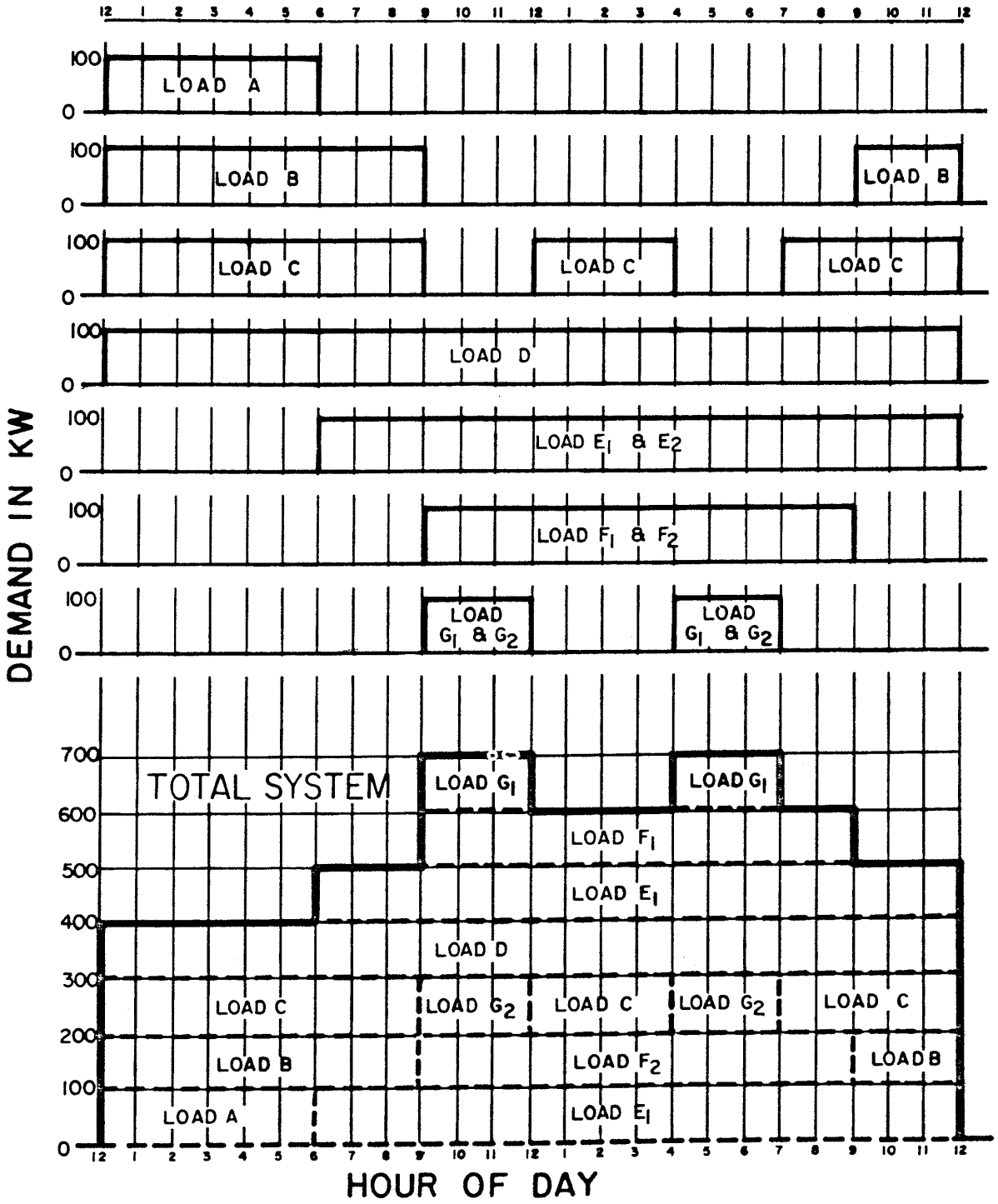

TABLE 1

Load	*Kwh.*	*Diversified Peak Kw.*	*Coincident Peak Kw.*	*Load Factor*	*Load Characteristics*
A	600	100	0	25%	Nothing on System Peak
B	1,200	100	0	50%	Nothing on System Peak
C	1,800	100	0	75%	Nothing on System Peak
D	2,400	100	100	100%	Entirely on System Peak
E_1 & E_2	1,800	100	100	75%	Entirely on System Peak
F_1 & F_2	1,200	100	100	50%	Entirely on System Peak
G_1 & G_2	600	100	100	25%	Entirely on System Peak

creating the system peak; this is not being done.

III. *Average and Excess*—The portion of facilities required to serve the average load is allocated on the basis of the average demands and the difference between the average loads and the maximum load, being the excess demand, is allocated on the basis of the noncoincident peak. The results are partially dependent on load factor, which, as stated earlier, has no bearing on demand costs.

IV. *Complete Peak*—Manner of capacity cost allocation differs from other methods by putting onus on classes that exceed average demand during periods when system peaks go above average system load. This method is also partially dependent on load factor.

To the best of my knowledge, all currently published methods have somewhat similar fallacies. Recognizing that these fallacies must be overcome, the following method was developed:

Figure II (page 28) shows the same system load curve as in Figure I; the left-hand scale indicates the demand and the bottom scale indicates the hours of the day. On the right-hand scale, percentages are added. Looking at the demand of 400 kilowatts presenting 57.14 per cent of the peak, it is observed that this demand exists for the entire 24-hour period. Since 400 kilowatts represent 57.14 per cent of the peak, it similarly accounts for 57.14 per cent of the capacity costs. Dividing these capacity costs of 57.14 per cent equally to each of these hours (57.14%/24 Hrs.) results in each hour being responsible for 2.38 per cent of the capacity costs. The next break in the load curve (500 kilowatts) is responsible for 14.29 per cent (71.43% - 57.14%) of the capacity costs; this demand is used eighteen hours a day, 6 A.M. to 12 P.M. By similar calculation, each hour is responsible for .79 per cent (14.29%/18 Hrs.) of the capacity costs. Moving up to the 600-kilowatt break, each hour from 9 A.M. to 9 P.M. is responsible for 1.19 per cent of the capacity costs. Finally, at 700 kilowatts, each of the hours from 9 A.M. to 12 A.M. and 4 P.M. to 7 P.M. is responsible for 2.38 per cent of the capacity costs.

By combining these hourly percentages, the six hours from 12 P.M. to 6 A.M. are each responsible for 2.38 per cent, the six hours, 6 A.M. to 9 A.M. and 9 P.M. to 12 P.M. are each responsible for 3.17 per cent (2.38% + .79%), the six hours 12 A.M. to 4 P.M. and 7 P.M. to 9 P.M. for 4.36 per cent (2.38% + .79% + 1.19%) and the six hours 9 A.M. to 12 A.M. and 4 P.M. to 6 P.M. for 6.74 per cent (2.38% + .79% + 1.19% + 2.38%).

These hourly percentages, representing the distribution of the total capacity costs over the twenty-four hours of the day, establish a weighting system that will be used to distribute capacity costs to the various loads.

Figure III (page 28), showing the hourly weighting factors on the bottom scale, reveals that some loads have more than one weighting factor. For example, load D falls in all four weighting areas. It is appropriate that an individual load should be responsible for the maximum weighted demand. Applying this principle to Figure III, the weighted demands shown

TABLE 2

Load	*Method I Peak Responsibility* Kw.	%	*Method II Noncoincident Peak* Kw.	%	*Method III Average & Excess* Kw.	%	*Method IV Complete Peak (Oram & Robison)* Kw.	%
A	0		70	10	50	7	25	4
B	0		70	10	67	10	50	7
C	0		70	10	83	12	79	11
D	100	14	70	10	100	13	100	14
E_1	100	14	70	10	83	12	89	13
E_2	100	14	70	10	83	12	89	13
F_1	100	14	70	10	67	10	78	11
F_2	100	14	70	10	67	10	78	11
G_1	100	15	70	10	50	7	56	8
G_2	100	15	70	10	50	7	56	8
	700	100	700	100	700	100	700	100

FIGURE II

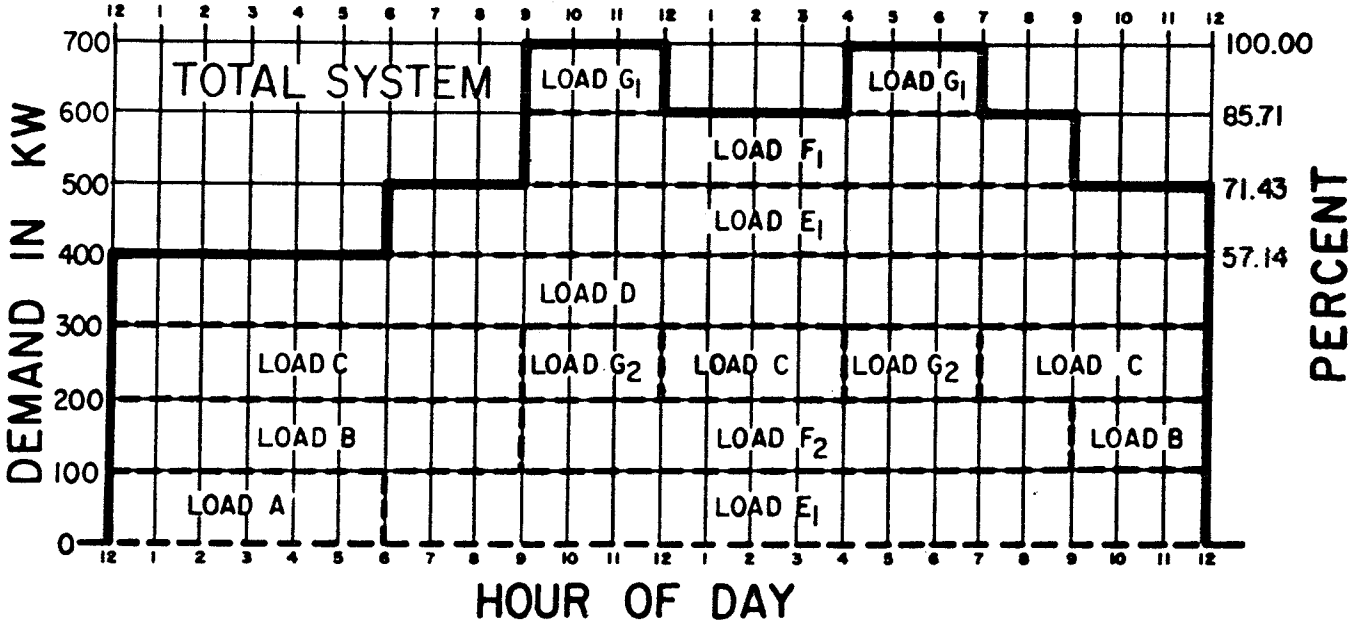

FIGURE III

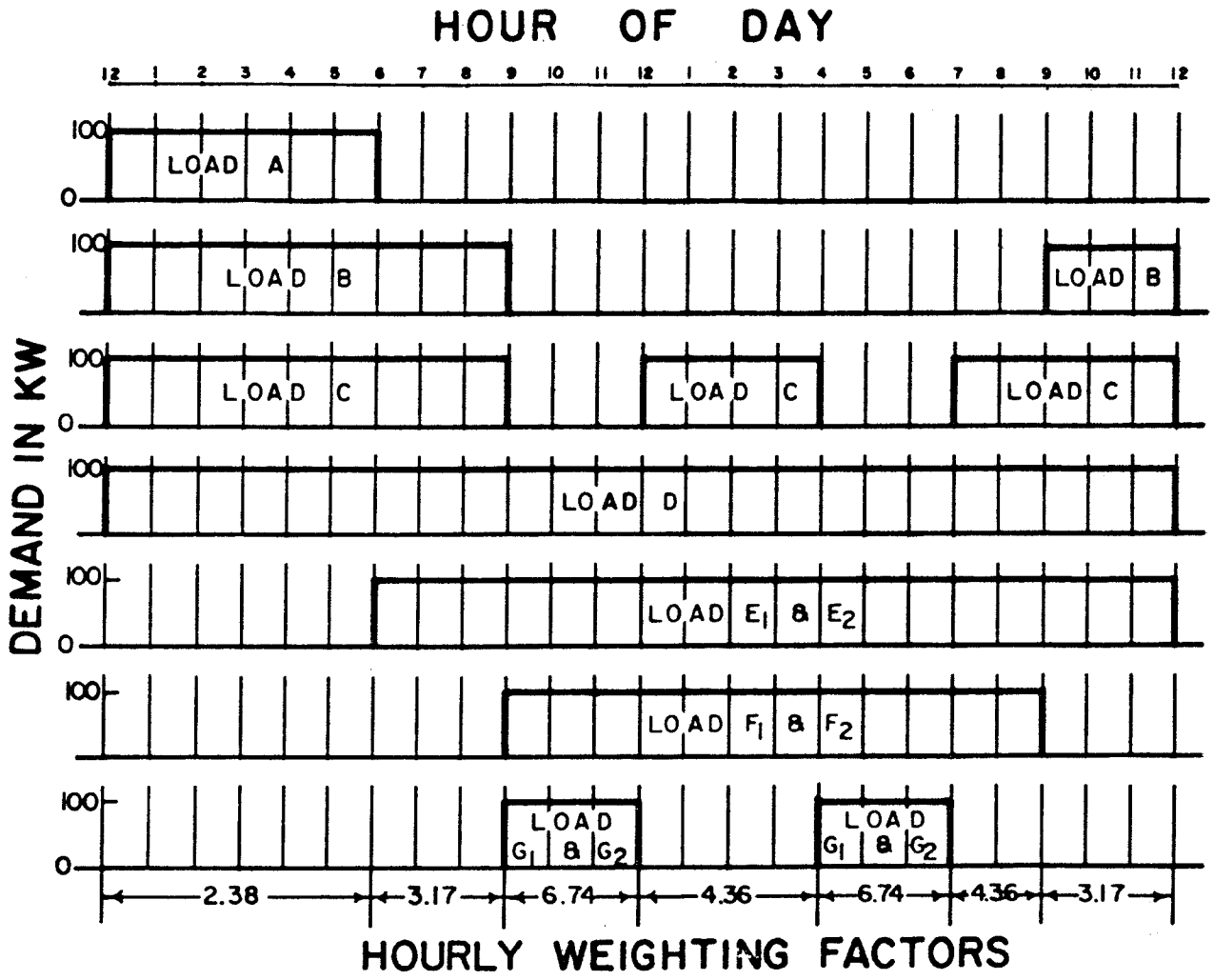

TABLE 3

Load	*Highest Hourly Weighting Factor*	*Weighted Demand*	*Percentage Distribution*	*Distribution of 700 Kw.*
A	2.38	238	4	28
B	3.17	317	5	38
C	4.36	436	7	53
D	6.74	674	12	83
E_1	6.74	674	12	83
E_2	6.74	674	12	83
F_1	6.74	674	12	83
F_2	6.74	674	12	83
G_1	6.74	674	12	83
G_2	6.74	674	12	83
		5,709	100	700

in Table 3 above were determined. In the next to the last column, the percentage distribution of the total weighted demand is shown. These percentages represent the proportional distribution of the capacity costs. Applying these percentages to the total system demand of 700 kilowatts gives the demand allocation shown in the last column.

The end result of this method is to assign all capacity costs to the individual loads proportional to what they individually would cost.

Table 4 (page 30) again shows the results of some of the more common methods of capacity allocation, as well as the proportional responsibility method. The inequities of the common methods described earlier are eliminated under the proportional responsibility method. Each and every load is assigned a proportionate share of the capacity costs. It is not dependent on load factors and it considers the time when the demand was established.

An additional major advantage of the proportional responsibility method is that it can be used to determine the costs associated with successively smaller components of the total load. A logical sequence of studies, each using the results of the earlier study in the listing, would be:

1. Cost of service by jurisdictional area.
2. Cost of service by class of service.
3. Cost of service by rate schedule.
4. Cost of service by homogeneous groups within the rate schedule (could be by annual consumption or connected appliances).
5. Cost of service by individual appliance or specific load.

None of the common methods described earlier in this article will give reasonable answers if applied to the above series of studies.

The actual application of the proportional responsibility method is more complex than described above as each hour of the year has a specific weighting factor, and complete day-by-day load curves are required both for the system and for the various customer groups. However, with modern computer technology, this is not an insurmountable problem.

If desired, the proportional responsibility method can be simplified by reducing the number of load curves resulting in fewer weighting factors. For example, instead of using the daily load curves, average monthly load curves or monthly peak-day load curves could be used. As might be expected, this simplification will alter the proportional allocation and limit the scope of application because it does not fully consider the daily, monthly, and seasonal shifts of the load curves of the system or the customer groups.

However, compared to the known fallacies of the results of commonly used methods, this altera-

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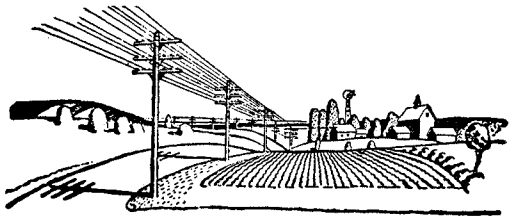
TABLE 4

	Method I Peak Responsibility		*Method II Noncoincident Peak*		*Method III Average & Excess*		*Method IV Complete Peak (Oram & Robison)*		*Method V Prop. Resp. Method*	
Load	*Kw.*	*%*	*Kw.*	*%*	*Kw.*	*%*	*Kw.*	*%*	*Kw.*	*%*
A	0		70	10	50	7	25	4	28	4
B	0		70	10	67	10	50	7	38	5
C	0		70	10	83	12	79	11	53	7
D	100	14	70	10	100	13	100	14	83	12
E_1	100	14	70	10	83	12	89	13	83	12
E_2	100	14	70	10	83	12	89	13	83	12
F_1	100	14	70	10	67	10	78	11	83	12
F_2	100	14	70	10	67	10	78	11	83	12
G_1	100	15	70	10	50	7	56	8	83	12
G_2	100	15	70	10	50	7	56	8	83	12
	700	100	700	100	700	100	700	100	700	100

tion of the proportional allocation and limitation of scope is minor.

Finally, I want to point out that the proportional responsibility method is designed to give a realistic and reasonable distribution of imbedded capacity costs. This makes it ideal for purposes of rate design, determination of rate of return, and support in rate cases. It does not evaluate the incremental added costs of new loads or the long-range future costs of existing or added loads. These types of evaluations require separate special studies utilizing appropriate capacity allocation methods.



Outline of General Environmental Impact of Utility Operations

	Air Quality	*Water Quality*	*Land Use*	*Noise*
Electric	Stack emissions Nuclear radiation Transport and storage of nuclear materials	Thermal effect of coolant uses Secondary effect of fossil fuel used (coal-oil)	Lines and structures Dams and reservoirs Cooling towers Strip mining	Negligible
Natural gas	Negligible	Secondary effect from allied oil processing	Buildings and compressor stations	Compressors
Telephone	Negligible	Negligible	Lines and structures Radio towers	Relay stations
Rail & air carriers	Considerable emissions	Secondary effect of fossil fuels used or transported	Track and terminal structures	Considerable impact

SUMMARY OF THE PROPORTIONAL RESPONSIBILITY METHOD

The "Proportional Responsibility Method" is a capacity-related cost allocation method developed by Gary H. Grainger of Wisconsin Public Service Corporation. This method utilizes system load data (curve) to calculate a demand cost responsibility for each month, day or hour as the cost allocator to be used in the cost of service studies.

Exhibits 1 and 2 illustrate how this method works for the annual proportional responsibility. First, each monthly peak demand is calculated as a percentage of the annual system peak. This percentage is the demand cost responsibility. Second, the demand cost responsibility is spread over the month(s) it occurs. For example, the lowest demand cost responsibility is 83.65% (May, 1976) in Exhibit 1. This occurs in 12 months of the year and should be spread over the 12 months, i.e., 6.97083% per month. The second lowest responsibility is 84.08% (April, 1976). The difference between 84.08% and 83.65% (0.43%) occurs for 11 months of the year. Therefore, the second lowest demand month gets the cost responsibility of the lowest demand over 12 months (6.97083%) plus the responsibility of the second lowest demand spread over 11 months (0.03909%) as shown in Exhibit 2. This calculation continues until the highest demand month is done. Third, by adding the winter months' and summer months' responsibilities, two seasonal allocators are derived. The relationship between on-peak and off-peak periods within the month can also be quantified by using proportional responsibility method. This is shown in Exhibit 3.

The procedures of developing the allocators as described above are computerized and incorporated in Gilbert's Hourly Load Program in Fortran Language. Some sample print-outs labeled Exhibit 4 show the development of monthly proportional responsibility allocators on page 1 and diurnal allocators on pages 2 and 3.

Attached for reference is the article entitled "The Proportional Responsibility Method of Capacity Cost Allocation" by Gary H. Grainger from the November 9, 1972 issue of Public Utilities Fortnightly. This article introduced proportional responsibility method and also briefly discussed other capacity allocation methods.

EXHIBIT 1

PROPORTIONAL RESPONSIBILITY

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Jan, 1972	711	688	666	659	655	762	794	809	742	662	683	730
Jan, 1976	844	821	799	792	788	895	927	942	875	795	816	854
% of Peak	89.60	87.16	84.82	84.08	83.65	95.01	98.41	100.0	92.89	84.40	86.62	90.66

Lowest	83.65% ÷ 12	=	6.97083
	(84.08 - 83.65) ÷ 11	=	.03909
	(84.40 - 84.08) ÷ 10	=	.03200
	(84.82 - 84.40) ÷ 9	=	.04667
	(86.62 - 84.82) ÷ 8	=	.22500
	(87.16 - 86.62) ÷ 7	=	.07714
	(89.60 - 87.16) ÷ 6	=	.40667
	(90.66 - 89.60) ÷ 5	=	.21200
	(92.89 - 90.66) ÷ 4	=	.55750
	(95.01 - 92.89) ÷ 3	=	.70667
	(98.41 - 95.01) ÷ 2	=	1.70000
Highest	(100.00 - 98.41) ÷ 1	=	1.59000

Source: Peak-load Pricing Workshop paper by Wisconsin Public Service Corporation.

EXHIBIT 2

ANNUAL PROPORTIONAL RESPONSIBILITY

		% Distrib
Jan	= 6.971 + .039 + .032 + .047 + .225 + .077 + .407	= 7.797
Feb	= 6.971 + .039 + .032 + .047 + .225 + .077	= 7.3907
Mar	= 6.971 + .039 + .032 + .047	= 7.0886
Apr	= 6.971 + .039	= 7.0099
May	= 6.971	= 6.9708
Jun	= 6.971 + .039 + .032 + .047 + .225 + .077 + .407 + .212 + .558 + .707	= 9.2736
Jul	= 6.971 + .039 + .032 + .047 + .225 + .077 + .407 + .212 + .558 + .707 + 1.7	= 10.9736
Aug	= 6.971 + .039 + .032 + .047 + .225 + .077 + .407 + .212 + .558 + .707 + 1.7 + 1.59	= 12.5636
Sep	= 6.971 + .039 + .032 + .047 + .225 + .077 + .407 + .212 + .558	= 8.5669
Oct	= 6.971 + .039 + .032	= 7.0419
Nov	= 6.971 + .039 + .032 + .047 + .225	= 7.3136
Dec	= 6.971 + .039 + .032 + .047 + .225 + .077 + .407 + .212	= 8.009
Total		100.0000

Source: Peak-load Pricing Workshop paper by Wisconsin Public Service Corporation.

EXHIBIT 3

MONTHLY PROPORTIONAL RESPONSIBILITY

WINTER

Base Load	62.25%	428.55 Hrs.
Intermediate Load	87.70%	200.97 Hrs.
Peak Load	92.90%	100.48 Hrs.

730 Hrs. = 30.42 Days = 4.35 Weeks

67.008 ÷ 730.00 =	.09179%
27.395 ÷ 301.45 =	.09088%
5.597 ÷ 100.48 =	.05570%

Base Load	.09179%	1.00000	.38507
Intermediate Load	.18267%	1.99009	.76633
Peak Load	.23837%	2.59691	1.00000

SUMMER

Base Load	58.37%	406.38 Hrs.
Intermediate Load	83.35%	222.62 Hrs.
Peak Load	89.35%	101.000 Hrs.

65.072 ÷ 730.00 =	.08914
27.848 ÷ 323.62 =	.08605
7.079 ÷ 101.00 =	.07009

Base Load	.08914	1.00000	.36342
Intermediate Load	.17519	1.96534	.71424
Peak Load	.24528	2.75163	1.00000

Source: Peak-load Pricing Workshop paper by Wisconsin Public Service Corporation.

EXHIBIT 4

ANALYSIS OF 1979 DATA
DEVELOPMENT OF MONTHLY PROPORTIONAL RESPONSIBILITY ALLOCATOR

REFER TO PUBLIC UTILITIES FORTNIGHTLY, NOV. 9, 1972 FOR A DETAILED DISCUSSION OF THE PROCEDURE EMPLOYED

	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
PEAK MW	869	862	795	769	800	915	934	1055	864	585	650	742
% OF PK	82.3697	81.7061	75.3554	72.8910	75.8294	86.7298	88.5308	100.0000	81.8957	55.4502	61.6114	70.3317
INVERSE RANK	9	7	5	4	6	10	11	12	8	1	2	3
SUCCESSIVE DIFFERENCE BY RANK	0.4739	5.8768	2.4645	2.5592	0.4739	4.3602	1.8009	11.4692	0.1896	55.4502	6.1611	8.7204
RANK	4	6	8	9	7	3	2	1	5	12	11	10
INCREMENT ALLOCATION IN %	0.1185	0.9795	0.3081	0.2844	0.0677	1.4534	0.9005	11.4692	0.0379	4.6209	0.5601	0.8720
CUMULATIVE ALLOCATION IN %	7.8490	7.6926	6.6454	6.3374	6.7131	9.3024	10.2028	21.6720	7.7305	4.6209	5.1810	6.0530
ALLOCATION IN MW	82	81	70	66	70	98	107	228	81	48	54	63

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EXHIBIT 4

ANALYSIS OF 1979 DATA
DEVELOPMENT OF HOURLY PROPORTIONAL RESPONSIBILITY ALLOCATOR
MORNING HOURS- PAGE 1 OF 2

REFER TO PUBLIC UTILITIES FORTNIGHTLY, NOV. 9, 1972 FOR A DETAILED DISCUSSION OF THE PROCEDURE EMPLOYED

HOUR ENDING	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	12 AM
PEAK MW	727	720	674	671	673	689	751	816	855	893	953	995
% OF PK	68.9099	68.2464	63.8862	63.6019	63.7915	65.3080	71.1848	77.3460	81.0426	84.6445	90.3317	94.3128
INVERSE RANK	6	5	3	1	2	4	7	8	10	12	13	16
SUCCESSIVE DIFFERENCE BY RANK	0.6635	2.9384	0.0948	63.6019	0.1896	1.4218	2.2749	6.1611	1.0427	0.5687	5.6872	0.6635
RANK	19	20	22	24	23	21	18	17	15	13	12	9
INCREMENT ALLOCATION IN %	0.0349	0.1469	0.0043	2.6501	0.0082	0.0677	0.1264	0.3624	0.0695	0.0437	0.4739	0.0737
CUMULATIVE ALLOCATION IN %	2.9122	2.8773	2.6626	2.6501	2.6583	2.7303	3.0386	3.4010	3.6364	3.8968	4.3707	4.7676
ALLOCATION IN MW	30	30	28	27	28	28	32	35	38	41	46	50

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EXHIBIT 4

ANALYSIS OF 1979 DATA
DEVELOPMENT OF HOURLY PROPORTIONAL RESPONSIBILITY ALLOCATOR
EVENING HOURS- PAGE 2 OF 2

REFER TO PUBLIC UTILITIES FORTNIGHTLY , NOV.9, 1972 FOR A DETAILED DISCUSSION OF THE PROCEDURE EMPLOYED

HOUR ENDING	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	MIDNIGHT
PEAK MW	1021	1045	1045	1037	1030	1055	1027	988	1003	963	887	844
% OF PK	96.7772	99.0521	99.0521	98.2938	97.6303	100.0000	97.3460	93.6493	95.0711	91.2796	84.0758	80.0000
INVERSE RANK	18	23	22	21	20	24	19	15	17	14	11	9
SUCCESSIVE DIFFERENCE BY RANK	1.7062	0.0	0.7583	0.6635	0.2844	0.9479	0.5687	2.3697	0.7583	0.9479	3.0332	2.6540
RANK	7	2	3	4	5	1	6	10	8	11	14	16
INCREMENT ALLOCATION IN %	0.2437	0.0	0.2528	0.1659	0.0569	0.9479	0.0948	0.2370	0.0948	0.0862	0.2167	0.1659
CUMULATIVE ALLOCATION IN %	5.1061	5.6764	5.6764	5.4236	5.2577	6.6243	5.2009	4.6938	4.8623	4.4569	3.8530	3.5668
ALLOCATION IN MW	53	59	59	57	55	69	54	49	51	47	40	37

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Narragansett Gas
Summary of Billing Determinants and Base Revenue

Line No.	Description	Reference	Actual (Jul 16 - Jun 17)	Adjustment	Normal	Proforma Adjustment	Rate Year - Sep 18- Aug 19	Percent Change Normal	Percent Change Rate Year - Sep 18- Aug 19
	(a)		(b)	(c) = (d) - (b)	(d)	(e) = (f) - (d)	(f)	(g) = (c) / (b)	(h) = (e) / (d)
	Firm Throughput (Dt)								
	Sales Service								
(1)	Residential Non-Heating		382,339.08	5,811.61	388,150.70	(20,793.35)	367,357.35	1.5%	-5.4%
(2)	Low Income Residential Non-Heating		11,034.39	209.55	11,243.93	(1,066.53)	10,177.40	1.9%	-9.5%
(3)	Residential Heating		17,058,837.30	511,788.46	17,570,625.76	179,055.27	17,749,681.02	3.0%	1.0%
(4)	Low Income Residential Heating		1,499,283.38	39,497.70	1,538,781.08	(112,632.77)	1,426,148.31	2.6%	-7.3%
(5)	Subtotal Residential Firm Sales	sum[(1):(5)]	18,951,494.14	557,307.32	19,508,801.47	44,562.62	19,553,364.09	2.9%	0.2%
(6)	Small C&I		2,221,913.23	76,100.19	2,298,013.42	(9,296.56)	2,288,716.86	3.4%	-0.4%
(7)	Medium C&I		3,129,565.53	77,860.62	3,207,426.15	(49,483.77)	3,157,942.38	2.5%	-1.5%
(8)	Large LLF		618,598.95	19,256.21	637,855.16	(40,798.64)	597,056.52	3.1%	-6.4%
(9)	Large HLF		236,842.35	1,286.67	238,129.02	33,110.48	271,239.50	0.5%	13.9%
(10)	Extra Large LLF		61,928.42	1,857.41	63,785.83	(20,905.30)	42,880.53	3.0%	-32.8%
(11)	Extra Large HLF		76,522.32	(1,151.60)	75,370.72	748.94	76,119.66	-1.5%	1.0%
(12)	Subtotal C&I Firm Sales	sum[(6):(11)]	6,345,370.80	175,209.50	6,520,580.30	(86,624.85)	6,433,955.45	2.8%	-1.3%
(13)	Subtotal Firm Sales	(5) + (12)	25,296,864.94	732,516.82	26,029,381.76	(42,062.23)	25,987,319.54	2.9%	-0.2%
	Transportation Service								
(14)	Small C&I		108,973.50	3,406.82	112,380.33	62,078.72	174,459.05		
(15)	Medium C&I		2,350,204.56	55,949.09	2,406,153.65	(39,411.06)	2,366,742.60	2.4%	-1.6%
(16)	Large LLF		2,019,582.81	60,203.91	2,079,786.72	(40,127.98)	2,039,658.73	3.0%	-1.9%
(17)	Large HLF		869,072.23	8,334.96	877,407.19	161,630.90	1,039,038.09	1.0%	18.4%
(18)	Extra Large LLF		1,179,615.35	27,587.81	1,207,203.16	(26,950.29)	1,180,252.87	2.3%	-2.2%
(19)	Extra Large HLF		6,293,628.53	19,387.34	6,313,015.87	571,973.32	6,884,989.19	0.3%	9.1%
(20)	Subtotal Firm Transportation	sum[(14):(19)]	12,821,076.98	174,869.93	12,995,946.91	689,193.61	13,685,140.52	1.4%	5.3%
	Miscellaneous Services								
(21)	NGV			0		0	0	0.0%	0.0%
(22)	Gas Lights			0		0	0	0.0%	0.0%
(23)	Manchester St			0		0	0	0.0%	0.0%
(24)	Marketers			0		0	0	0.0%	0.0%
(25)	Pawtucket Power			0		0	0	0.0%	0.0%
(26)	Subtotal Miscellaneous		0	0	0	0	0	0.0%	0.0%
(27)	**Total Firm Base Quantities (Dt)**	(13) + (20)	38,117,942	907,387	39,025,329	647,131	39,672,460	2.4%	1.7%

Footnotes:

(1) TEP-2, Pg. 1, Ln 1
(2) TEP-2, Pg. 1, Ln 2
(3) TEP-2, Pg. 1, Ln 3
(4) TEP-2, Pg. 1, Ln 4
(6) TEP-2, Pg. 1, Ln 5
(7) TEP-2, Pg. 1, Ln 7
(8) TEP-2, Pg. 1, Ln 10
(9) TEP-2, Pg. 1, Ln 13
(10) TEP-2, Pg. 1, Ln 16
(11) TEP-2, Pg. 1, Ln 19
(14) TEP-2, Pg. 1, Ln 6
(15) TEP-2, Pg. 1, Ln 8 + TEP-2, Pg. 1, Ln 9
(16) TEP-2, Pg. 1, Ln 11 + TEP-2, Pg. 1, Ln 12
(17) TEP-2, Pg. 1, Ln 14 + TEP-2, Pg. 1, Ln 15
(18) TEP-2, Pg. 1, Ln 17 + TEP-2, Pg. 1, Ln 18
(19) TEP-2, Pg. 1, Ln 20 + TEP-2, Pg. 1, Ln 21

Narragansett Gas
Summary of Billing Determinants and Base Revenue

Line No.	Description (a)	Reference	Actual (Jul 16 - Jun 17) (b)	Adjustment (c) = (d) - (b)	Normal (d)	Proforma Adjustment (e) = (f) - (d)	Rate Year - Sep 18- Aug 19 (f)	Percent Change Normal (g) = (c) / (b)	Percent Change Rate Year - Sep 18- Aug 19 (h) = (e) / (d)
	Firm Base Revenue (net of GET) [1]								
	Sales Service								
(1)	Residential Non-Heating		$4,668,318.00	$25,489.00	$4,693,807.00	($462,543.00)	$4,231,264.00	0.5%	-9.9%
(2)	Low Income Residential Non-Heating		$77,964.00	$826.00	$78,790.00	($9,462.00)	$69,328.00	1.1%	-12.0%
(3)	Residential Heating		$104,614,202.00	$1,470,942.00	$106,085,144.00	$2,394,326.00	$108,479,470.00	1.4%	2.3%
(4)	Low Income Residential Heating		$8,435,594.00	$61,113.00	$8,496,707.00	($530,980.00)	$7,965,727.00	0.7%	-6.2%
(5)	Subtotal Residential Firm Sales	sum[(1):(4)]	$117,796,078.00	$1,558,370.00	$119,354,448.00	$1,391,341.00	$120,745,789.00	1.3%	1.2%
(6)	Small C&I		$13,138,834.00	$132,768.00	$13,271,602.00	($2,128.00)	$13,269,474.00	1.0%	0.0%
(7)	Medium C&I		$11,590,548.00	$145,210.00	$11,735,758.00	$102,521.00	$11,838,279.00	1.3%	0.9%
(8)	Large LLF		$2,048,389.00	$33,255.00	$2,081,644.00	($105,512.00)	$1,976,132.00	1.6%	-5.1%
(9)	Large HLF		$556,356.00	$1,294.00	$557,650.00	($57,123.00)	$500,527.00	0.2%	-10.2%
(10)	Extra Large LLF		$116,057.00	$607.00	$116,664.00	($25,568.00)	$91,096.00	0.5%	-21.9%
(11)	Extra Large HLF		$166,251.00	($295.00)	$165,956.00	($9,923.00)	$156,033.00	-0.2%	-6.0%
(12)	Subtotal C&I Firm Sales	sum[(6):(11)]	$27,616,435.00	$312,839.00	$27,929,274.00	($97,733.00)	$27,831,541.00	1.1%	-0.3%
(13)	Subtotal Firm Sales	(5) + (12)	$145,412,513.00	$1,871,209.00	$147,283,722.00	$1,293,608.00	$148,577,330.00	1.3%	0.9%
	Transportation Service								
(14)	Small C&I		$531,564.00		$537,041.00		$821,713.00		
(15)	Medium C&I		$8,086,768.00	$104,343.00	$8,191,111.00	$74,257.00	$8,265,368.00	1.3%	0.9%
(16)	Large LLF		$6,335,339.00	$103,973.00	$6,439,312.00	($64,653.00)	$6,374,659.00	1.6%	-1.0%
(17)	Large HLF		$1,992,603.00	$8,393.00	$2,000,996.00	$254,785.00	$2,255,781.00	0.4%	12.7%
(18)	Extra Large LLF		$1,654,176.00	$9,049.00	$1,663,225.00	($59,300.00)	$1,603,925.00	0.5%	-3.6%
(19)	Extra Large HLF		$6,735,356.00	$4,961.00	$6,740,317.00	$172,596.00	$6,912,913.00	0.1%	2.6%
(20)	Subtotal Firm Transportation	sum[(14):(19)]	$25,335,806.00	$230,719.00	$25,572,002.00	$377,685.00	$26,234,359.00	0.9%	1.5%
	Miscellaneous Services								
(21)	NGV			$0.00		$0.00		0.0%	0.0%
(22)	Gas Lights			$0.00		$0.00		0.0%	0.0%
(23)	Manchester St			$0.00		$0.00		0.0%	0.0%
(24)	Marketers			$0.00		$0.00		0.0%	0.0%
(25)	Pawtucket Power			$0.00		$0.00		0.0%	0.0%
(26)	Subtotal Miscellaneous	sum[(21):(25)]	$0.00	$0.00	$0.00	$0.00	$0.00	0.0%	0.0%
(27)	Subtotal Firm Base Revenue (net of GET)	(13) + (20) + (26)	$170,748,319.00	$2,101,928.00	$172,855,724.00	$1,671,293.00	$174,811,689.00	1.2%	1.0%
	Non-Firm Margin [2]								
(28)	Component supporting base rates			$0.00		$0.00		0.0%	0.0%
(29)	**NET Base Revenue (net of GET)**	(27) + (28)	$170,748,319.00	$2,101,928.00	$172,855,724.00	$1,671,293.00	$174,811,689.00	1.2%	1.0%

Note [1] Base Revenue excludes GET, DAC, GCR, Energy Efficiency Surcharge

Footnotes:
Col (b) Workpaper AEL-1, Pg. 1, Col (m)
Col (d) Workpaper AEL-2, Pg. 1, Col (m)
Col (f) Workpaper AEL-3, Pg. 1, Col (m)

Narragansett Gas
Summary of Firm Base Revenue By Rate Element
(Net of Gross Earnings Tax)

Line No.	Description	Reference	Test Year	Weather Adjustment	Weather Normalized	Proforma Adjustment	Rate Year - Sep 18- Aug 19
	(a)		(b)	(c) = (d) - (b)	(d)	(e) = (d) - (b)	(f)
	Residential Non-Heat						
(1)	Customer Charge		$2,991,378	$0	$2,991,378	$ (371,345)	$2,620,033
(2)	Variable Distribution		$1,676,940	$25,489	$1,702,429	$ (91,198)	$1,611,231
(3)	sub-total	(1) + (2)	$4,668,318	$25,489	$4,693,807	$ (462,543)	$4,231,264
	Low Income Residential Non-Heat						
(4)	Customer Charge		$34,410	$0	$34,410	$ (5,253)	$29,157
(5)	Variable Distribution		$43,554	$826	$44,380	$ (4,209)	$40,171
(6)	sub-total	(4) + (5)	$77,964	$826	$78,790	$ (9,462)	$69,328
	Residential Heating						
(7)	Customer Charge		$31,612,165	$0	$31,612,165	$ 1,151,514	$32,763,679
(8)	Variable Distribution		$73,002,037	$1,470,942	$74,472,979	$ 1,242,812	$75,715,791
(9)	sub-total	(7) + (8)	$104,614,202	$1,470,942	$106,085,144	$ 2,394,326	$108,479,470
	Low Income Residential Heating						
(10)	Customer Charge		$2,551,912	$0	$2,551,912	$ (154,569)	$2,397,343
(11)	Variable Distribution		$5,883,682	$61,113	$5,944,795	$ (376,411)	$5,568,384
(12)	sub-total	(10) + (11)	$8,435,594	$61,113	$8,496,707	$ (530,980)	$7,965,727
	Small						
(13)	Customer Charge		$5,033,732	$0	$5,033,732	$ 55,242	$5,088,974
(14)	Variable Distribution		$8,636,667	$138,243	$8,774,910	$ 227,306	$9,002,216
(15)	sub-total	(13) + (14)	$13,670,399	$138,243	$13,808,642	$ 282,548	$14,091,190
	Medium C&I						
(16)	Customer Charge		$4,210,290	$0	$4,210,290	$ 158,690	$4,368,980
(17)	Variable Distribution		$10,219,771	$249,556	$10,469,327	$ (165,789)	$10,303,538
(18)	Demand Charge		$5,247,256	$0	$5,247,256	$ 183,873	$5,431,129
(19)	sub-total	sum[(16):(18)]	$19,677,317	$249,556	$19,926,873	$ 176,774	$20,103,647
	Large Low Load C&I						
(20)	Customer Charge		$963,900	$0	$963,900	$ (6,125)	$957,775
(21)	Variable Distribution		$4,556,140	$137,228	$4,693,368	$ (139,761)	$4,553,607
(22)	Demand Charge		$2,863,688	$0	$2,863,688	$ (24,276)	$2,839,412
(23)	sub-total	sum[(20):(22)]	$8,383,728	$137,228	$8,520,956	$ (170,162)	$8,350,794
			$8,383,728		$8,520,956		$8,350,791
	Large High Load C&I						
(24)	Customer Charge		$390,775	$0	$390,775	$ 35,525	$426,300
(25)	Variable Distribution		$1,113,656	$9,688	$1,123,344	$ 196,106	$1,319,450
(26)	Demand Charge		$1,044,530	$0	$1,044,530	$ (33,973)	$1,010,557
(27)	sub-total	sum[(24):(26)]	$2,548,961	$9,688	$2,558,649	$ 197,658	$2,756,307

Narragansett Gas
Summary of Firm Base Revenue By Rate Element
(Net of Gross Earnings Tax)

Line No.	Description (a)	Reference	Test Year (b)	Weather Adjustment (c) = (d) - (b)	Weather Normalized (d)	Proforma Adjustment (e) = (d) - (b)	Rate Year - Sep 18- Aug 19 (f)
	Extra Large Low Load C&I						
(28)	Customer Charge		$184,875	$0	$184,875	$ (11,475)	$173,400
(29)	Variable Distribution		$407,226	$9,661	$416,887	$ (15,700)	$401,187
(30)	Demand Charge		$1,178,136	$0	$1,178,136	$ (57,705)	$1,120,431
(31)	sub-total	sum[(28):(30)]	$1,770,237	$9,661	$1,779,898	$ (84,880)	$1,695,018
	Extra Large High Load C&I						
(32)	Customer Charge		$472,175	$0	$472,175	$ 2,125	$474,300
(33)	Variable Distribution		$1,630,758	$4,668	$1,635,426	$ 146,615	$1,782,041
(34)	Demand Charge		$4,798,671	$0	$4,798,671	$ 13,928	$4,812,599
(35)	sub-total	sum[(32):(34)]	$6,901,604	$4,668	$6,906,272	$ 162,668	$7,068,940
	TOTAL FIRM SALES AND TRANSPORTATION						
(36)	Customer Charge	sum[(1),(4),(7),(10),(13),(16),(20),(24),(28),(32)]	$48,445,612	$0	$48,445,612	$ 854,329	$49,299,941
(37)	Variable Distribution	sum[(2),(5),(8),(11),(14),(17),(21),(25),(29),(33)]	$107,170,431	$2,107,414	$109,277,845	$ 1,019,771	$110,297,616
(38)	Demand Charge	(18)+(22)+(26)+(30)+(34)	$15,132,281	$0	$15,132,281	$ 81,847	$15,214,128
(39)	TOTAL	sum[(36):(38)]	$170,748,324	$2,107,414	$172,855,738	$ 1,955,947	$174,811,685

Footnotes:

Col (b), Lines (1),(4),(7),(10),(13),(16),(20),(24),(28),(32):	Workpaper AEL-1, Pg 4. Col (m)
Col (b), Lines (2),(5),(8),(11),(14),(17),(21),(25),(29),(33):	Workpaper AEL-1, Pg. 8, Col (m)
Col (b), Lines (18),(22),(26),(30),(34):	Workpaper AEL-1, Pg. 11, Col (m)
Col (d), Lines (1),(4),(7),(10),(13),(16),(20),(24),(28),(32):	Workpaper AEL-2, Pg. 4, Col (m)
Col (d), Lines (2),(5),(8),(11),(14),(17),(21),(25),(29),(33):	Workpaper AEL-2, Pg. 8, Col (m)
Col (d), Lines (18),(22),(26),(30),(34):	Workpaper AEL-2, Pg. 11, Col (m)
Col (e), Lines (1),(4),(7),(10),(13),(16),(20),(24),(28),(32):	Workpaper AEL-3, Pg. 4, Col (m)
Col (e), Lines (2),(5),(8),(11),(14),(17),(21),(25),(29),(33):	Workpaper AEL-3, Pg. 8, Col (m)
Col (e), Lines (18),(22),(26),(30),(34):	Workpaper AEL-3, Pg. 11, Col (m)

Customers

Line No.		Sep-18 (a)	Oct-18 (b)	Nov-18 (c)	Dec-18 (d)	Jan-19 (e)	Feb-19 (f)	Mar-19 (g)	Apr-19 (h)	May-19 (i)	Jun-19 (j)	Jul-19 (k)	Aug-19 (l)	Average Sep 18-Aug19 (m)
(1)	Residential non-heat	17,100	17,083	17,042	16,994	16,921	16,825	16,750	16,654	16,604	16,556	16,519	16,493	16,795
(2)	Residential non-heat Low Income	223	231	231	231	223	209	202	188	187	186	188	193	208
(3)	Residential heat	206,486	206,552	207,083	208,202	209,861	211,383	212,349	212,695	212,417	211,859	211,065	210,331	210,024
(4)	Residential heat Low Income	17,355	17,477	17,484	17,458	17,320	17,086	16,954	16,728	16,715	16,712	16,760	16,852	17,075
(5)	Small	18,347	18,251	18,294	18,406	18,599	18,787	18,894	18,894	18,824	18,704	18,542	18,381	18,577
(6)	Small FT-2	656	664	672	680	690	700	707	714	720	725	730	736	700
(7)	Medium	3,320	3,325	3,330	3,336	3,344	3,350	3,354	3,356	3,359	3,364	3,368	3,375	3,348
(8)	Medium FT-1	333	331	330	329	329	328	327	326	325	324	324	322	327
(9)	Medium FT-2	1,493	1,497	1,502	1,508	1,515	1,523	1,530	1,538	1,543	1,548	1,552	1,556	1,525
(10)	LLF large	117	117	117	117	117	117	117	117	117	117	117	117	117
(11)	LLF large FT-1	123	123	122	122	122	122	122	121	121	121	121	121	122
(12)	LLF large FT-2	215	215	216	216	216	217	218	219	219	219	219	219	217
(13)	LLF XL	4	4	4	4	4	4	4	4	4	4	4	4	4
(14)	LLF XL FT-1	27	27	27	27	27	27	27	27	27	27	27	27	27
(15)	LLF XL FT-2	3	3	3	3	3	3	3	3	3	3	3	3	3
(16)	HLF large	55	57	57	57	56	55	56	55	55	55	55	57	56
(17)	HLF large FT-1	84	84	85	85	85	86	86	86	87	87	88	88	86
(18)	HLF large FT-2	62	61	61	61	61	61	61	61	61	61	62	62	61
(19)	HLF XL	3	3	3	3	3	3	3	3	3	3	3	3	3
(20)	HLF XL FT-1	74	74	74	74	74	74	74	74	74	74	74	74	74
(21)	HLF XL FT-2	16	16	16	16	16	16	16	16	16	16	16	16	16
(22)	**Total**	266,096	266,195	266,753	267,929	269,586	270,976	271,854	271,879	271,481	270,765	269,837	269,030	269,365

Footnotes:

Column (l):

(1) TEP-9, Pg. 1, Col (b), Ln (1)
(2) TEP-9, Pg. 1, Col (b), Ln (2)
(3) TEP-9, Pg. 1, Col (b), Ln (3)
(4) TEP-9, Pg. 1, Col (b), Ln (4)
(5) TEP-9, Pg. 1, Col (b), Ln (5)
(6) TEP-9, Pg. 1, Col (b), Ln (6)
(7) TEP-9, Pg. 1, Col (b), Ln (7)
(8) TEP-9, Pg. 1, Col (b), Ln (9)
(9) TEP-9, Pg. 1, Col (b), Ln (8)
(10) TEP-9, Pg. 1, Col (b), Ln (10)
(11) TEP-9, Pg. 1, Col (b), Ln (12)
(12) TEP-9, Pg. 1, Col (b), Ln (11)
(13) TEP-9, Pg. 1, Col (b), Ln (13)
(14) TEP-9, Pg. 1, Col (b), Ln (15)
(15) TEP-9, Pg. 1, Col (b), Ln (14)
(16) TEP-9, Pg. 1, Col (b), Ln (16)
(17) TEP-9, Pg. 1, Col (b), Ln (18)
(18) TEP-9, Pg. 1, Col (b), Ln (17)
(19) TEP-9, Pg. 1, Col (b), Ln (19)
(20) TEP-9, Pg. 1, Col (b), Ln (21)
(21) TEP-9, Pg. 1, Col (b), Ln (20)
(22) sum[(1):(21)]

Customers

Line No.		Jul-16 (a)	Aug-16 (b)	Sep-16 (c)	Oct-16 (d)	Nov-16 (e)	Dec-16 (f)	Jan-17 (g)	Feb-17 (h)	Mar-17 (i)	Apr-17 (j)	May-17 (k)	Jun-17 (l)	Average Jul 16 - Jun 17 (m)
(1)	Residential non-heat	19,239	19,101	19,087	19,087	19,161	19,231	19,269	19,266	19,216	19,197	19,150	19,102	19,176
(2)	Residential non-heat Low Income	269	256	251	246	243	238	233	236	237	245	244	243	245
(3)	Residential heat	199,963	199,871	199,934	199,651	201,272	202,873	204,578	205,459	205,163	204,681	204,404	203,856	202,642
(4)	Residential heat Low Income	19,407	19,140	18,870	18,545	18,313	18,017	17,741	17,527	17,551	17,677	17,663	17,661	18,176
(5)	Small	18,535	18,382	18,202	18,059	18,285	18,416	18,678	18,785	18,924	18,994	18,927	18,811	18,583
(6)	Small FT-2	431	433	440	453	457	518	499	507	507	513	521	529	484
(7)	Medium	3,164	3,155	3,251	3,217	3,269	3,246	3,256	3,275	3,270	3,261	3,262	3,266	3,241
(8)	Medium FT-1	385	381	380	380	378	377	377	356	355	352	351	350	369
(9)	Medium FT-2	1,362	1,375	1,363	1,382	1,379	1,427	1,432	1,443	1,416	1,414	1,418	1,422	1,403
(10)	LLF large	126	129	118	120	125	117	123	121	121	119	118	118	121
(11)	LLF large FT-1	132	130	130	130	130	130	129	129	127	127	127	127	129
(12)	LLF large FT-2	203	203	204	206	205	213	215	211	211	211	211	212	209
(13)	LLF XL	6	6	4	5	5	4	5	5	5	5	5	5	5
(14)	LLF XL FT-1	28	28	28	28	28	28	28	29	28	28	28	28	28
(15)	LLF XL FT-2	4	4	3	3	3	3	3	3	3	3	3	3	3
(16)	HLF large	41	42	49	52	47	48	51	56	55	55	55	55	51
(17)	HLF large FT-1	60	61	61	61	62	62	62	60	60	60	60	60	61
(18)	HLF large FT-2	66	67	75	74	76	77	76	76	77	78	78	78	75
(19)	HLF XL	3	4	4	4	3	3	3	3	3	3	3	3	3
(20)	HLF XL FT-1	70	75	75	75	75	75	74	74	74	74	74	74	74
(21)	HLF XL FT-2	14	15	14	15	16	15	14	16	16	16	16	16	15
(22)	**Total**	263,508	262,858	262,543	261,793	263,532	265,118	266,846	267,637	267,419	267,113	266,718	266,019	265,092

Footnotes:

Column (f):

(1) TEP-6, Pg. 1, Col (f), Ln (1)
(2) TEP-6, Pg. 1, Col (f), Ln (2)
(3) TEP-6, Pg. 1, Col (f), Ln (3)
(4) TEP-6, Pg. 1, Col (f), Ln (4)
(5) TEP-6, Pg. 1, Col (f), Ln (5)
(6) TEP-6, Pg. 1, Col (f), Ln (6)
(7) TEP-6, Pg. 1, Col (f), Ln (7)
(8) TEP-6, Pg. 1, Col (f), Ln (8)
(9) TEP-6, Pg. 1, Col (f), Ln (9)
(10) TEP-6, Pg. 1, Col (f), Ln (10)
(11) TEP-6, Pg. 1, Col (f), Ln (11)
(12) TEP-6, Pg. 1, Col (f), Ln (12)
(13) TEP-6, Pg. 1, Col (f), Ln (13)
(14) TEP-6, Pg. 1, Col (f), Ln (14)
(15) TEP-6, Pg. 1, Col (f), Ln (15)
(16) TEP-6, Pg. 1, Col (f), Ln (16)
(17) TEP-6, Pg. 1, Col (f), Ln (17)
(18) TEP-6, Pg. 1, Col (f), Ln (18)
(19) TEP-6, Pg. 1, Col (f), Ln (19)
(20) TEP-6, Pg. 1, Col (f), Ln (20)
(21) TEP-6, Pg. 1, Col (f), Ln (21)
(22) sum[(1):(21)]

National Grid Rhode Island

Winter Design Allocator

	Number of Customers					Base Load (dth)					Heat Load (dth)				
Rate Class	November	December	January	February	March	November	December	January	February	March	November	December	January	February	March
Residential non-heat	17,042	16,994	16,921	16,825	16,750	13,841	13,803	13,743	13,665	13,604	16,679	33,297.35	33,315	39,213	29,088
Residential non-heat (Low Income)	231	231	223	209	202	208	208	201	188	182	226.09	452.61	439.06	487.11	350.79
Residential heat	207,083	208,202	209,861	211,383	212,349	368,264	370,254	373,205	375,911	377,629	1,382,388	2,782,420	2,818,219	3,360,268	2,515,171
Residential heat (Low Income)	17,484	17,458	17,320	17,086	16,954	31,106	31,060	30,814	30,398	30,163	116,715	233,309	232,590	271,609	200,812
C & I small	18,294	18,406	18,599	18,787	18,894	41,680	41,935	42,375	42,803	43,047	192,446	387,624.58	393,592	470,625	352,659
C & I small FT-2	672	680	690	700	707	3,120	3,157	3,203	3,250	3,282	13,033	26,402.92	26,921	32,330	24,330
C & I medium sales	3,330	3,336	3,344	3,350	3,354	92,491	92,657	92,880	93,046	93,157	219,627	440,473	443,675	526,144	392,497
C & I medium FT-1	330	329	329	328	327	18,612	18,556	18,556	18,499	18,443	31,685	63,239	63,547	74,995	55,708
C & I medium FT-2	1,502	1,508	1,515	1,523	1,530	49,336	49,533	49,763	50,026	50,256	124,329	249,894	252,274	300,207	224,712
LLF large sales	117	117	117	117	117	7,746	7,746	7,746	7,746	7,746	52,259	104,621	105,129	124,447	92,725
LLF large FT-1	122	122	122	122	122	13,735	13,735	13,735	13,735	13,735	72,220	144,581	145,283	171,979	128,142
LLF large FT-2	216	216	216	217	218	17,443	17,443	17,443	17,524	17,604	102,032	204,262	205,255	244,095	182,713
LLF XL sales	4	4	4	4	4	-	-	-	-	-	4,474	8,956	9,000	10,654	7,938
LLF XL FT-1	27	27	27	27	27	17,580	17,580	17,580	17,580	17,580	95,715	191,617	192,548	227,930	169,830
LLF XL FT-2	3	3	3	3	3	1,231	1,231	1,231	1,231	1,231	4,057	8,121	8,161	9,660	7,198
HLF large sales	57	57	56	55	56	15,537	15,537	15,264	14,992	15,264	7,395	14,805	14,616	16,992	12,891
HLF large FT-1	85	85	85	86	86	33,696	33,696	33,696	34,092	34,092	8,386	16,788	16,870	20,204	15,054
HLF large FT-2	61	61	61	61	61	28,140	28,140	28,140	28,140	28,140	19,321	38,679	38,867	46,009	34,281
	266,660	267,836	269,493	270,883	271,761										
	266,660	267,836	269,493	270,883	271,761										

National Grid Rhode Island

Winter Design Allocator

	Winter Design (dth) - Heat Load Sales Only Customers						
Rate Class	November	December	January	February	March	Total	New Alloc
Residential non-heat	16,679	33,297	33,315	39,213	29,088	151,593	0.8%
Residential non-heat (Low Income)	226	453	439	487	351	1,956	0.0%
Residential heat	1,382,388	2,782,420	2,818,219	3,360,268	2,515,171	12,858,466	69.6%
Residential heat (Low Income)	116,715	233,309	232,590	271,609	200,812	1,055,035	5.7%
C & I small	192,446	387,625	393,592	470,625	352,659	1,796,947	9.7%
C & I medium	219,627	440,473	443,675	526,144	392,497	2,022,416	10.9%
LLF Large	52,259	104,621	105,129	124,447	92,725	479,180	2.6%
HLF Large	7,395	14,805	14,616	16,992	12,891	66,700	0.4%
LLF XL	4,474	8,956	9,000	10,654	7,938	41,022	0.2%
HLF XL	4,141	1,932	-	-	1,429	7,501	0.0%
Total	1,996,351	4,007,891	4,050,575	4,820,440	3,605,560	18,480,817	100.00%

National Grid RI
Heat Use per Customer/DD

	January
Residential non-heat	0.002
Residential non-heat LI	
Residential heat	0.013
Residential heat LI	
C & I small	0.020
C & I small FT-2	0.038
C & I medium sales	0.128
C & I medium FT-1	0.187
C & I medium FT-2	0.161
LLF large sales	0.869
LLF large FT-1	1.152
LLF large FT-2	0.919
LLF XL sales	2.176
LLF XL FT-1	6.897
LLF XL FT-2	2.631
HLF large sales	0.252
HLF large FT-1	0.192
HLF large FT-2	0.616

	Base Use per cust/day	**Heat Use per cust/DD** Jan-17
Residential non-heat	0.0274	0.0019
Residential non-heat L	0.0304	0.0066
Residential heat	0.0600	0.0130
Residential heat LI	0.0600	0.0126
C & I small	0.0768	0.0205
C & I small FT-2	0.1566	0.0377
C & I medium sales	0.9368	0.1283
C & I medium FT-1	1.9022	0.1868
C & I medium FT-2	1.1078	0.1610
LLF large sales	2.2329	0.8690
LLF large FT-1	3.7972	1.1517
LLF large FT-2	2.7236	0.9190
LLF XL sales	-	2.1760
LLF XL FT-1	21.9595	6.8969
LLF XL FT-2	13.8354	2.6307
HLF large sales	9.1932	0.2524
HLF large FT-1	13.3701	0.1919
HLF large FT-2	15.5583	0.6162
	87.0282	

National Grid - RI Gas
Design Billing Degree Days
July 2016 - June 2017

Month		# Days	Design DDays
Jan-17	Design	31	1,034
Feb-17	Design	29	1,224
Mar-17	Design	30	912
Apr-17	Design	31	777
May-17	Design	30	295
Jun-17	Design	31	155
Jul-16	Design	31	13
Aug-16	Design	30	-
Sep-16	Design	30	40
Oct-16	Design	30	175
Nov-16	Design	30	514
Dec-16	Design	31	1,029
Total		365	6,168
Nov-Mar	Avg Days	30	

Rate Year Throughput- Therm	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Total	
Res Non Ht	150,721	177,621	248,142	375,512	465,974	447,047	617,497	475,589	309,926	210,833	155,395	141,090	3,775,348	
Res Heat	4,391,987	5,479,796	12,368,247	23,095,687	32,467,305	35,555,563	30,937,332	21,166,207	11,477,932	6,263,418	4,466,938	4,087,881	191,758,293	
Small C&I	510,765	640,781	1,344,184	3,152,809	4,381,615	4,600,275	4,164,092	2,798,190	1,280,810	810,772	485,875	461,591	24,631,759	
Medium C&I	1,657,345	2,244,376	3,857,280	6,815,433	8,711,806	8,312,455	8,038,424	5,930,203	3,854,922	2,262,603	1,772,283	1,789,719	55,246,850	
Large Low Load Factor C&I	553,374	959,020	2,097,955	3,815,868	4,642,027	4,603,466	4,101,148	2,605,815	1,470,476	704,338	419,827	393,839	26,367,153	
Large High Load Factor C&I	782,364	864,623	988,535	1,267,225	1,435,999	1,305,345	1,317,877	1,161,248	1,089,817	1,013,001	959,669	917,071	13,102,776	
XLarge Low Load Factor C&I	255,592	778,991	1,219,985	1,888,091	2,145,441	1,914,149	1,697,728	1,061,649	602,578	283,091	193,716	190,324	12,231,334	
XLarge High Load Factor C&I	5,216,963	5,479,178	5,820,015	6,647,668	6,634,420	5,726,647	6,035,907	6,038,493	5,554,978	5,447,858	5,542,203	5,466,758	69,611,089	
Total	13,519,112	16,624,388	27,944,343	47,058,293	60,884,589	62,464,947	56,910,005	41,237,394	25,641,439	16,995,913	13,995,906	13,448,271	396,724,601	
Check														
ISR Factors														
Res Non Ht	$0.1298	$0.1298	$0.1298	$0.1298	$0.1298	$0.1298	$0.1298	$0.1298	$0.1298	$0.1298	$0.1298	$0.1298		
Res Heat	$0.1298	$0.1298	$0.1298	$0.1298	$0.1298	$0.1298	$0.1298	$0.1298	$0.1298	$0.1298	$0.1298	$0.1298		
Small C&I	$0.1292	$0.1292	$0.1292	$0.1292	$0.1292	$0.1292	$0.1292	$0.1292	$0.1292	$0.1292	$0.1292	$0.1292		
Medium C&I	$0.0956	$0.0956	$0.0956	$0.0956	$0.0956	$0.0956	$0.0956	$0.0956	$0.0956	$0.0956	$0.0956	$0.0956		
Large Low Load Factor C&I	$0.0890	$0.0890	$0.0890	$0.0890	$0.0890	$0.0890	$0.0890	$0.0890	$0.0890	$0.0890	$0.0890	$0.0890		
Large High Load Factor C&I	$0.0698	$0.0698	$0.0698	$0.0698	$0.0698	$0.0698	$0.0698	$0.0698	$0.0698	$0.0698	$0.0698	$0.0698		
XLarge Low Load Factor C&I	$0.0244	$0.0244	$0.0244	$0.0244	$0.0244	$0.0244	$0.0244	$0.0244	$0.0244	$0.0244	$0.0244	$0.0244		
XLarge High Load Factor C&I	$0.0211	$0.0211	$0.0211	$0.0211	$0.0211	$0.0211	$0.0211	$0.0211	$0.0211	$0.0211	$0.0211	$0.0211		
ISR Revenue														
Res Non Ht	$19,564	$23,055	$32,209	$48,742	$60,483	$58,027	$80,151	$61,731	$40,228	$27,366	$20,170	$18,313	$490,040	$490,257
Res Heat	$570,080	$711,278	$1,605,398	$2,997,820	$4,214,256	$4,615,112	$4,015,666	$2,747,374	$1,489,836	$812,992	$579,809	$530,607	$24,890,226	$24,901,225
Small C&I	$65,991	$82,789	$173,669	$407,343	$566,105	$594,356	$538,001	$361,526	$165,481	$104,752	$62,775	$59,638	$3,182,423	$3,183,829
Medium C&I	$158,442	$214,562	$368,756	$651,555	$832,849	$794,671	$768,473	$566,927	$368,531	$216,305	$169,430	$171,097	$5,281,599	$5,283,933
Large Low Load Factor C&I	$49,250	$85,353	$186,718	$339,612	$413,140	$409,708	$365,002	$231,918	$130,872	$62,686	$37,365	$35,052	$2,346,677	$2,347,713
Large High Load Factor C&I	$54,609	$60,351	$69,000	$88,452	$100,233	$91,113	$91,988	$81,055	$76,069	$70,707	$66,985	$64,012	$914,574	$914,978
XLarge Low Load Factor C&I	$6,236	$19,007	$29,768	$46,069	$52,349	$46,705	$41,425	$25,904	$14,703	$6,907	$4,727	$4,644	$298,445	$298,576
XLarge High Load Factor C&I	$110,078	$115,611	$122,802	$140,266	$139,986	$120,832	$127,358	$127,412	$117,210	$114,950	$116,940	$115,349	$1,468,794	$1,469,443
Total	$1,034,250	$1,312,006	$2,588,320	$4,719,860	$6,379,401	$6,730,524	$6,028,063	$4,203,848	$2,402,930	$1,416,665	$1,058,201	$998,711	$38,872,778	$38,889,954
RDM Factor	($0.0093)	($0.0093)	($0.0093)	($0.0093)	($0.0093)	($0.0093)	($0.0093)	($0.0093)	($0.0093)	($0.0093)	($0.0093)	($0.0093)		
RDM Revenue														
Res Non Ht	($1,402)	($1,652)	($2,308)	($3,492)	($4,334)	($4,158)	($5,743)	($4,423)	($2,882)	($1,961)	($1,445)	($1,312)	($35,111)	($35,430)
Res Heat	($40,845)	($50,962)	($115,025)	($214,790)	($301,946)	($330,667)	($287,717)	($196,846)	($106,745)	($58,250)	($41,543)	($38,017)	($1,783,352)	($1,799,586)
Small C&I	($4,750)	($5,959)	($12,501)	($29,321)	($40,749)	($42,783)	($38,726)	($26,023)	($11,912)	($7,540)	($4,519)	($4,293)	($229,075)	($231,161)
Medium C&I	($15,413)	($20,873)	($35,873)	($63,384)	($81,020)	($77,306)	($74,757)	($55,151)	($35,851)	($21,042)	($16,482)	($16,644)	($513,796)	($518,473)
Total	($62,411)	($79,446)	($165,706)	($310,987)	($428,048)	($454,913)	($406,943)	($282,443)	($157,389)	($88,793)	($63,989)	($60,267)	($2,561,334)	($2,584,650)

Line	Account	Account No.	Adjusted Pro Forma Labor	Adjusted Pro Forma Non-Labor	Adjusted Pro Forma Total
1	*Distribution Expenses-O&M*				
2	Natural Gas City Gate Purchases	8040000	0	(0)	(0)
3	Gas Withdrawn from Storage-Debt	8081000	0	0	0
4	Gas Delivered to Storage-Cr	8082000	0	(0)	(0)
5	Withdrawal of Liq Nat Gas Held for Proc	8091000	0	(1)	(1)
6	Gas Used for Product Extraction-Cr	8092000	0	0	0
7	Gas Used for Other Utility Oper-Cr	8120000	0	0	0
8	Other Gas Supply Exp	8130000	40	3,117	3,158
9	Operation Labor and Expenses	8410000	1,478,658	507,980	1,986,638
10	Rents	8420000	0	15,848	15,848
11	Maint of Vaporizing Equipment	8436000	0	11,947	11,947
12	Operation Supervision and Engineering	8441000	0	0	0
13	Fuel	8451000	0	0	0
14	Power	8452000	0	0	0
15	Other Expenses	8462000	0	0	0
16	Maint Supervision and Engineering	8471000	0	0	0
17	Maint of Structures and Improvements	8472000	0	0	0
18	Maint of LNG Processing Terminal Equip	8473000	0	0	0
19	Maint of Measuring/Reg Equipment	8475000	0	0	0
20	Maint of Vaporizing Equipment	8478000	0	0	0
21	Total - Storage Expense		1,478,698	538,892	2,017,590
22					0
23	Operation Supervision and Engineering	8500000	5,507	5,688	11,195
24	Maint Supervision and Engineering	8610000	63,264	7,874	71,138
25	Maint of Mains	8630000	164	(0)	164
26	Operation Supervision and Engineering	8700000	2,193,184	1,013,372	3,206,556
27	Distribution Load Dispatching	8710000	668,442	474,035	1,142,477
28	Compressor Station Fuel and Power	8730000	0	18,026	18,026
29	Mains and Services Expenses	8740000	2,137,375	1,499,228	3,636,604
30	Measuring/Reg Station Exp-General	8750000	706,089	158,760	864,849
31	Measuring/Reg Station Exp-Industrial	8760000	26,653	6,084	32,737
32	Meter and House Regu	8780000	7,654,310	2,484,254	10,138,564
33	Customer Installation Exp	8790000	336,239	66,134	402,373
34	Other Expenses	8800000	2,518,297	4,483,825	7,002,123
35	Rents	8810000	0	(29,557)	(29,557)
36			0	0	0
37			0	0	0
38			0	0	0
39			0	0	0
40	Total- Operation		16,309,524	10,187,722	26,497,246
41					0
42	Maintenance supervis	8850000	451,676	34,076	485,752
43	Maintenance of Mains	8870000	1,555,729	997,667	2,553,396
44	Maint of Compressor Station Equipment	8880000	0	63,717	63,717
			0	0	0
45	Maint of Meas/Reg Station Equip-General	8890000	314,883	400,115	714,998

Line	Account	Account No.	Adjusted Pro Forma Labor	Adjusted Pro Forma Non-Labor	Adjusted Pro Forma Total
46	Maint of Meas/Reg Station Equip-Industr	8900000	46,053	488,892	534,945
47	Maintenance of Servi	8920000	2,133,757	2,030,952	4,164,710
48	Maint of Meters and House Regulators	8930000	1,276,637	389,774	1,666,411
49	Maint of Other Equipment	8940000	0	(11,829)	(11,829)
50	Total - Maintenance		5,778,736	4,393,364	10,172,100
51	Total - Operation & Maintenance		22,088,260	14,581,086	36,669,346
					0
52	Supervision (Major o	9010000	262,609	61,180	323,788
53	Meter reading expense	9020000	168,552	358,104	526,656
54	Customer records and	9030000	2,399,744	4,372,355	6,772,099
55	Uncollectible accounts	9040000	0	3,706,686	3,706,686
56	Miscellaneous customers	9050000	364,703	61,280	425,983
57	Supervision (Major o	9070000	7,851	17,858	25,709
58	Customer assistance	9080000	258,286	97,862	356,148
59	Informational and in	9090000	290	856,339	856,630
60	Total - Cust Info		3,462,035	9,531,664	12,993,699
61					0
62	Misc Customer Serv and Info Exp	9100000	193,906	257,219	451,125
63	Supervision-Sales Expenses	9110000	12,572	24,142	36,714
64	Demonstrating and Selling Expenses	9120000	420,959	61,850	482,809
65	Advertising Expenses	9130000	269	52,278	52,547
66	Misc Sales Expenses	9160000	109,890	48,835	158,725
67	Administrative and General Salaries	9200000	6,876,264	628,187	7,504,451
68	Office Supplies and Expenses	9210000	(8)	5,051,077	5,051,069
69	Administrative Exp Transferred-Cr	9230000	0	1,962,066	1,962,066
70	Property insurance	9240000	0	308,610	308,610
71	Injuries and damages	9250000	75,863	1,289,466	1,365,329
72	Employee Pensions and Benefits	9260000	(371)	8,845,175	8,844,805
73	Regulatory Commission Expenses	9280000	1,728	1,908,711	1,910,440
74	General Advertising	9301000	59	1	60
75	Misc General	9302000	(15,444)	902,607	887,163
76	Rents	9310000	0	9,647,448	9,647,448
77	Maintenance of General Plant	9320000	4,191	4,465	8,656
78	Maintenance of gener	9350000	1,034	(1,075)	(41)
79			0	0	0
80	Subtotal A&G		7,680,914	30,991,063	38,671,977
81					0
82	A&G Maint-General Plant-Elec	935000	0	0	0
83			0	0	0
84	Total A&G		7,680,914	30,991,063	38,671,977
85					0
86	Subtotal - O&M		**34,709,907**	**55,642,705**	**90,352,612**

RI Gas Rate Year Detail

Account No.	Gross Plant w Intangible	Total Accumulated Depreciation	NET PLANT	Depreciation Expense
Intangible Plant				
302.00	$213,499	$0	$213,499	
303.00	$5,085	$0	$5,085	
303.01	$29,888,379	$27,463,251	$2,425,128	
	$30,106,964	$27,463,251	$2,643,712	
Production Plant				
304.00	$853,973	$30,049	$823,924	$11,660
305.00	$1,799,946	$2,585,168	($785,222)	$86,064
307.00	$46,159	$56,949	($10,790)	$1,475
311.00	$8,613,137	($1,124,529)	$9,737,666	$274,079
320.00	$489,062	($117,301)	$606,363	$35,353
	$11,802,278	$1,430,336	$10,371,941	$408,631
Storage Plant				
360.00	$261,152	$9,189	$251,963	$8,345
361.03	$3,385,050	$2,548,652	$836,398	$108,165
362.04	$4,605,653	$4,808,320	($202,667)	$147,189
363.00	$13,892,912	$6,215,291	$7,677,620	$443,875
	$22,144,766	$13,581,452	$8,563,314	$707,574
Distribution Plant				
374.00	$925,104	$32,552	$892,551	$30,571
375.00	$10,212,827	$7,347,540	$2,865,287	$340,071
	$0	$0	$0	
376.00	$56,489,089	$31,832,760	$24,656,329	$1,812,944
376.03	$852,184	$787,623	$64,560	$27,350
376.04	$5,136	($7,481)	$12,618	$165
376.06	$17,424,338	$3,528,748	$13,895,590	$559,212

RI Gas Rate Year Detail

Account No.	Gross Plant w Intangible	Total Accumulated Depreciation	NET PLANT	Depreciation Expense
376.11	$70,805,813	$27,573,124	$43,232,689	$2,272,421
376.12	$469,260,470	$88,068,827	$381,191,643	$15,060,309
376.13	$6,811,198	$353,084	$6,458,114	$218,597
376.14	$272,271	$9,581	$262,691	$8,738
376.15	$1	($56,661)	$56,662	$0
376.16	$1,924,098	$184,291	$1,739,808	$61,751
376.17	$77,312,105	$13,533,488	$63,778,616	$2,481,232
377.00	$248,716	$740,463	($491,747)	$7,945
377.62	$0	$0	$0	$0
	$0	$0	$0	
378.10	$31,948,086	$6,401,760	$25,546,326	$982,679
378.55	$608,046	$21,396	$586,650	$18,703
379.00	$11,826,390	$3,862,861	$7,963,529	$352,550
379.01	$279,917	$1,409,436	($1,129,518)	$44,722
380.00	$354,036,285	$161,447,245	$192,589,039	$11,483,344
	$0	$0	$0	
381.10	$32,993,798	$14,267,207	$18,726,590	$934,280
381.30	$19,404,570	$6,339,658	$13,064,912	$549,476
381.40	$11,476,354	$8,249,008	$3,227,346	$324,974
	$0	$0	$0	
382.00	$726,735	$1,479,901	($753,166)	$21,749
382.20	$46,439,071	$5,152,293	$41,286,778	$1,389,772
382.30	$2,716,669	$682,013	$2,034,655	$81,301
383.00	$937,222	$758,233	$178,989	$29,948
384.00	$2,992,169	$715,637	$2,276,532	$86,561
385.00	$540,187	$97,835	$442,352	$17,261
385.01	$255,921	$264,926	($9,005)	$8,178
386.00	$271,765	$293,651	($21,886)	$8,684
386.02	$110,131	$114,006	($3,876)	$3,519
387.00	$785,775	$568,351	$217,424	$29,719

Account No.	Gross Plant w Intangible	Total Accumulated Depreciation	NET PLANT	Depreciation Expense
388.00	$0	$0	$0	$0
	$1,230,892,438	$386,053,356	$844,839,082	$39,248,725
General Plant				
389.01	$285,357	$10,041	$275,316	$9,118
390.00	$9,235,574	$840,618	$8,394,956	$292,267
391.00	$2,384,968	($1,200,785)	$3,585,753	$8,778
392.00	$625,738	$22,018	$603,720	
393.00	$16,876	$594	$16,282	
394.00	$5,344,353	$316,573	$5,027,780	$200,870
395.00	$237,430	$155,940	$81,491	$7,080
397.00	$885,374	$31,154	$854,220	
397.30	$77,530	$841,647	($764,117)	$12,387
397.42	$12,696	$20,856	($8,159)	$2,028
398.00	$3,041,822	$107,035	$2,934,787	$42,862
398.10	$826,177	$681,234	$144,943	$89,135
399.00	$169,755	$5,973	$163,782	
399.10				
Sub-Total	$23,143,650	$1,832,898	$21,310,752	$664,526
ovvered Reserve per Depreciation Study				$186,500
	$1,318,090,095	$430,361,294	$887,728,801	$41,215,955
	$1,318,090,095	$430,361,294	$887,728,801	$41,215,955

Rate Code

	RATE		$ Sales	Alloc % $
Sub Total Residential Non-Heating	1012		$68.61	0.01%
Sub Total Residential Non-Heating Low Income	1101		$0.00	0.00%
Sub Total Residential Heating	1247		$60.70	0.01%
Sub Total Residential Heating Low Income	1301		$29.18	0.01%
Total Residential			**$158.49**	**0.03%**
Sub Total Small - Rate 2107	2107		$136,787.94	28.78%
Sub Total Medium - Rate 2237	2237		$125,220.09	26.35%
Sub Total Medium TSS - Rate 2231	2231		$146.26	0.03%
Sub Total Large - Low Load - Rate 3367	3367		$23,085.62	4.86%
Sub Total Large Low Load TSS	3.3		$1,011.59	0.21%
Sub Total XL - Low Load - Rate 3496	3496		$92.40	0.02%
Total Commercial (Including TSS)	COMM	**$**	**286,344**	**60.25%**
Sub Total Large - High Load - Rate 2367	2367		$9,806.10	2.06%
Sub Total Large High Load TSS - Rate 2331	2331		$296.39	0.06%
Sub Total XL - High Load - Rate 2496	2496		$2,733.35	0.58%
Total Industrial (Including TSS)	IND	**$**	**12,836**	**2.70%**
Total C & I (Including TSS)	C&I	**$**	**299,180**	**62.95%**
Total Firm Sales (Including TSS)	FIRM	**$**	**299,338**	**62.98%**
Sub Total Medium FT-1 - Rate 22EN	22EN		$9,658.01	2.03%
Sub Total Medium FT-2 - Rate 2221	2221		$33,520.59	7.05%
Sub Total Large Low Load FT-1 - Rate 33EN	33EN		$13,478.97	2.84%
Sub Total Large Low Load FT-2 - Rate 3321	3321		$21,777.85	4.58%
Sub Total XL Low Load FT-1 - Rate 34EN	34EN		$21,362.57	4.49%
Sub Total XL Low Load FT-2 - Rate 3421	3421		$816.01	0.17%
Total Firm Commercial Transportation	COM T	**$**	**100,614**	**21.17%**
Sub Total Large High Load FT-1 - Rate 23EN	23EN		$4,550.59	0.96%
Sub Total Large High Load FT-2 - Rate 2321	2321		$3,508.59	0.74%
Sub Total XL High Load FT-1 - Rate 24EN	24EN		$20,453.77	4.30%
Sub Total XL High Load FT-2 - Rate 2421	2421		$2,118.20	0.45%
Total Firm Industrial Transportation	IND T	**$**	**30,631**	**6.44%**
Total Default Service (58LL)	58ENLL		$2,068.81	0.44%
Total Default Service (58XH)	58ENXLH		$10,407.25	2.19%
Total Default Service		**$**	**12,476**	**2.62%**
Sub Total Firm Sales Comm & Ind Tranportation	C&I T	**$**	**143,721**	**30.24%**
Sub Total Non-Firm Sales Medium - Rate 05EN	05EN		$0.00	0.00%

$442,900.95 Total Firm Excluding Residential

Rate Code

	RATE		$ Sales	Alloc % $
Sub Total Non-Firm Sales Medium - Rate 06EN	06EN		$0.00	0.00%
Sub Total Non-Firm Sales Medium - Rate 07EN	07EN		$0.00	0.00%
Sub Total Non-Firm Sales Medium	Med	**$**	**-**	**0.00%**
Sub Total Non-Firm Sales Large Low - Rate 08EN	08EN		$0.00	0.00%
Sub Total Non-Firm Sales Large Low - Rate 09EN	09EN		$0.00	0.00%
Sub Total Non-Firm Sales Large Low - Rate 10EN	10EN		$0.00	0.00%
Sub Total Non-Firm Sales Large Low	L Low	**$**	**-**	**0.00%**
Sub Total Non-Firm Sales Large High - Rate 11EN	11EN		$0.00	0.00%
Sub Total Non-Firm Sales Large High - Rate 12EN	12EN		$0.00	0.00%
Sub Total Non-Firm Sales Large High - Rate 13EN	13EN		$0.00	0.00%
Sub Total Non-Firm Sales Large High	L High	**$**	**-**	**0.00%**
Sub Total Non-Firm Sales XL Low - Rate 14EN	14EN		$24,227.35	5.10%
Sub Total Non-Firm Sales XL Low - Rate 15EN	15EN		$0.00	0.00%
Sub Total Non-Firm Sales XL Low - Rate 16EN	16EN		$0.00	0.00%
Sub Total Non-Firm Sales XL Low	XL Low	**$**	**24,227**	**5.10%**
Sub Total Non-Firm Sales XL High - Rate 17EN	17EN		$465.43	0.10%
Sub Total Non-Firm Sales XL High - Rate 18EN	18EN		$0.00	0.00%
Sub Total Non-Firm Sales XL High - Rate 19EN	19EN		$0.00	0.00%
Sub Total Non-Firm Sales XL High	XL High	**$**	**465**	**0.10%**
Sub Total Non-Firm Sales	S350	**$**	**24,693**	**5.20%**
Sub Total Non-Firm Transportation Other	ther		$0.00	0.00%
Sub Total Non-Firm Transp Medium - Rate 52EN	52EN		$0.00	0.00%
Sub Total Non-Firm Transp Medium - Rate 53EN	53EN		$0.00	0.00%
Sub Total Non-Firm Transp Medium - Rate 54EN	54EN		$0.00	0.00%
Sub Total Non-Firm Transportation Medium	Med T	**$**	**-**	**0.00%**
Sub Total Non-Firm Transp Large Low - Rate 55EN	55EN		$0.00	0.00%
Sub Total Non-Firm Transp Large Low - Rate 56EN	56EN		$0.00	0.00%
Sub Total Non-Firm Transp Large Low - Rate 57EN	57EN		$0.00	0.00%
Sub Total Non-Firm Transportation Large Low	L Low T	**$**	**-**	**0.00%**
Sub Total Non-Firm Transp Large High - Rate 71EN	71EN		$0.00	0.00%
Sub Total Non-Firm Transp Large High - Rate 72EN	72EN		$0.00	0.00%
Sub Total Non-Firm Transp Large High - Rate 73EN	73EN		$0.00	0.00%
Sub Total Non-Firm Transportation Large High	L High T	**$**	**-**	**0.00%**
Sub Total Non-Firm Transp XL Low - Rate 74EN	74EN		$4,316.14	0.91%
Sub Total Non-Firm Transp XL Low - Rate 75EN	75EN		$0.00	0.00%
Sub Total Non-Firm Transp XL Low - Rate 76EN	76EN		$0.00	0.00%

Rate Code

	RATE		$ Sales	Alloc % $
Sub Total Non-Firm Transportation XL Low	XL Low T	**$**	**4,316**	**0.91%**
Sub Total Non-Firm Transp XL High - Rate 77EN	77EN		$2,833.35	0.60%
Sub Total Non-Firm Transp XL High - Rate 78EN	78EN		$0.00	0.00%
Sub Total Non-Firm Transp XL High - Rate 79EN	79EN		$0.00	0.00%
Sub Total Non-Firm Transportation XL High	XL High T	**$**	**2,833**	**0.60%**
Sub Total Non-Firm Transportation	NON FT	**$**	**7,149**	**1.50%**
Sub Total Non-Firm	NON F	**$**	**31,842**	**6.70%**
Total Interruptible	Int		$0.00	0.00%
Gas Lights	8011		$1.04	0.00%
Marketer	02EN		$148.40	0.03%
Special Contracts	S350		$234.38	0.05%
Sub Total Trans 1 - Marketer Pool	1 MP		$0.00	0.00%
Sub Total Trans 2 - Marketer Pool	2 MP		$0.00	0.00%
Company Use - Unspecified Special Tracking	Uns		$0.00	0.00%
Sub Total All Other	ALL OTH	**$**	**384**	**0.08%**
Total Company	COMP	**$**	**475,286**	**100.00%**
			475285.53	
	Check	$	-	

Rate	Description	Deposit	Allocation
1012	Residential Non Heating	$2,080	0%
1101	Residential Non Heating Low Income	$40	0%
1247	Residential Heating	$231,661	7%
1301	Residential Heating Low Income	$5,414	0%
2107	C& Small	$1,587,212	48%
2221	FT2 Medium	$224,851	7%
2231	TSS Medium	$2,175	0%
2237	C&I Medium	$813,093	25%
2321	FT2 Large High	$13,886	0%
2331	TSS Large High	$5,310	0%
2367	C&I Large High	$53,846	2%
2496	C&I X-Large High	$25,000	1%
3321	FT2 Large Low	$48,611	1%
3367	C&I Large Low	$186,298	6%
22EN	FT1 Medium	$13,093	0%
23EN	FT1 Large High	$21,117	1%
24EN	FT1 X-Large High	$19,030	1%
33EN	FT1 Large Low	$16,453	1%
34EN	FT1 X-Large Low	$7,025	0%
77EN	NFT XL High	$2,496	0%
	Total Firm & Non Firm	**$3,278,691**	**100%**
	Total Firm	**$3,276,195**	

1-22: Service Count Allocator

				Number of Customers	
10,11 and 80	Residential Non-Heating	15,005	7.7%	19,489	8%
12 and 13	Residential Heating	164,629	84.0%	221,039	92%
21 and 70	C&I Small	12,215	6.2%	18,835	
22	C&I Medium	3,367	1.7%	5,042	
33	C&I Large Low Load	459	0.2%	459	
23	C&I Large High Load	187	0.1%	187	
34	C&I Extra Large Large Low Load	35	0.0%	35	
24	C&I Extra Large High Load	88	0.0%	88	
TOTAL		195,985	100.0%	265,174	
		195,991			
		(6)			
	Marketer	1			
	Dominion	1			
	Gas Lights	2			
	Company Use	2			
	Check	-			

1-24: Service Cost Allocator

10,11 and 80	Residential Non-Heating	$46,448,814	7.3%
12 and 13	Residential Heating	$509,615,098	80.3%
21 and 70	C&I Small	$57,108,837	9.0%
22	C&I Medium	$15,741,748	2.5%
33	C&I Large Low Load	$3,241,128	0.5%
23	C&I Large High Load	$1,320,460	0.2%
34	C&I Extra Large Large Low Load	$247,145	0.0%
24	C&I Extra Large High Load	$621,393	0.1%
TOTAL		$634,344,622	100.0%

Line No.	Rate Class	Meter Costs	ERT Costs	Total	Percentage	Meter Count	Average Cost
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
1	Residential Non-Heating	$ 1,164,247	$ 709,524	$ 1,873,771	5.88%	19,709	$95.07
2	Residential Heating	13,688,415	8,040,456	21,728,871	68.21%	223,346	$97.29
3	Small C/I	2,663,574	688,068	3,351,642	10.52%	19,113	$175.36
4	Medium C/I	3,416,112	185,712	3,601,824	11.31%	5,158	$698.30
5	Large Low Load	615,579	17,820	633,399	1.99%	495	$1,279.59
6	Large High Load	212,326	6,912	219,238	0.69%	192	$1,141.87
7	ExLarge Low Load	117,510	1,500	119,010	0.37%	39	$3,051.54
8	ExLarge High Load	243,257	3,696	246,953	0.78%	98	$2,519.93
9	Non-Firm	79,998	468	80,466	0.25%	11	
10	NGV			0	0.00%		
11	Total	$ 22,201,018	$ 9,654,156	$ 31,855,174	100.00%	268,161	$118.79
				$ 31,861,280		268,236	
				$ (6,106)		-75	
			company use	$ 5,129		13	
			Dominion Virgini	$ 977		2	
			Marketers			37	
			Gas Lights			23	
			Check	$ 0		0	
			Firm Only	$ 31,774,708			

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	# AMR Meters	Cost to Read AMR Meter	# Readings Per Year	Annual Cost to Read AMR	# Standard Meters	Cost to Read Standard Meter	# Readings Per Year	Annual Cost to Read Standard	Total Meter Reading Costs	- Total %
Residential Non-Heating	19,707	$0.12	12	$29,335	2	$12.97	12	$311	$29,646	6%
Residential Heating	223,328	$0.12	12	$332,431	18	$12.97	12	$2,802	$335,233	73%
Small C&I	19,055	$0.12	12	$28,364	58	$12.97	12	$9,029	$37,393	8%
Medium C&I	5,000	$0.12	12	$7,443	158	$12.97	12	$24,597	$32,039	7%
Large C&I Low Load	369	$0.12	12	$549	122	$12.97	12	$18,992	$19,542	4%
Large C&I High Load	165	$0.12	12	$246	27	$12.97	12	$4,203	$4,449	1%
X-Large C&I Low Load	33	$0.12	12	$49	6	$12.97	12	$934	$983	0%
X-Large C&I High Load	79	$0.12	12	$118	13	$12.97	12	$2,024	$2,141	0%
Total	267,736			$398,534	404			$62,893	$461,427	100%

Account 903000 Composite Allocator

Line #	Function	Description	Total $	Allocation Basis	Residential	C&I	Residential Non-Heating	Residential Heating	Small Commercial General	Medium Commercial General	Large Low Load Factor	Large High Load Factor	Extra Large Low Load Factor	Extra Large High Load Factor
1	AG0990	Credit & Collections	**$ 2,380,559**	Gross Write-Off			$ 102,294	$ 2,105,931	$ 100,092	$ 63,104	$ 8,325	$ -	$ -	$ 813
2	AG1000	Customer Billing	**$ 2,223,939**	Number of Customers			$ 163,091	$ 1,854,113	$ 157,991	$ 42,293	$ 3,817	$ 1,569	$ 294	$ 772
3	AG1001	Mailing - Customer Service	**$ 358,782**	Number of Customers			$ 26,311	$ 299,119	$ 25,488	$ 6,823	$ 616	$ 253	$ 47	$ 124
4	AG1010	Respond to Customer Calls/Inquiries	**$ 2,311,244**	Call Center Report (Resi vs. C&I), THEN Number of Customers	$ 2,206,852	$ 104,392	$ 178,424	$ 2,028,428	$ 79,778	$ 21,356	$ 1,927	$ 792	$ 148	$ 390
5		**Total**	**$ 7,274,524**				**$ 470,120**	**$ 6,287,591**	**$ 363,350**	**$ 133,577**	**$ 14,685**	**$ 2,614**	**$ 489**	**$ 2,099**
6		903000 Allocator	100.0%				6.46%	86.43%	4.99%	1.84%	0.20%	0.04%	0.01%	0.03%
		Compare to 2011 Rate Case	100%				8.84%	82.00%	6.83%	1.68%	0.39%	0.10%	0.05%	0.10%
7		No. of Customers	**265,128**				19,443	221,039	18,835	5,042	455	187	35	92
8		Percent	100.0%				7.33%	83.37%	7.10%	1.90%	0.17%	0.07%	0.01%	0.03%
		Percent of Resi & C&I			95%	5%	8.09%	91.91%	76.42%	20.46%	1.85%	0.76%	0.14%	0.37%
9		Gross Write-Off	**$ 10,798,025**				$ 463,996	$ 9,552,333	$ 454,009	$ 286,236	$ 37,762	$ -	$ -	$ 3,688
10		Percent	100.0%				4.30%	88.46%	4.20%	2.65%	0.35%	0.00%	0.00%	0.03%

Account 908000 Composite Allocator

Line #	Function	Description	Total $	Allocation Basis	Residential Non-Heating	Residential Heating	Small Commercial General	Medium Commercial General	Large Low Load Factor	Large High Load Factor	Extra Large Low Load Factor	Extra Large High Load Factor
1	AG0010	Community Relations	**$ 55,579**	Number of Customers	$ 4,076	$ 46,336	$ 3,948	$ 1,057	$ 95	$ 39	$ 7	$ 19
2	AG0140	Comm & Ind Accnt Mngmnt	**$ 366,534**	No. of Non-Residential Customers	$ -	$ -	$ 280,113	$ 74,984	$ 6,767	$ 2,781	$ 521	$ 1,368
3	AG0849	IS Support DSM		Number of Customers	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
4	AG1150	DSM GAS Residential A&G		No. of Residential Customers	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
5	AG1155	DSM GAS Large C&I A&G		No. of Large Non-Residential Customers	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
6	AG1160 AG1161	DSM Program Implementation & Administration		Number of Customers	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
7	AG1162	DSM GAS Cust Incentives & Svcs		Number of Customers	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	AG1166 AG1176 AG1195 AG1200	DSM Gas Mrkt Research, Studies, Evaluation & Planning		Number of Customers	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
9	AG1175	DSM GAS Sales Tech Asst Train		Number of Customers	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
10		**Total**	**$ 422,112**		**$ 4,076**	**$ 46,336**	**$ 284,061**	**$ 76,041**	**$ 6,862**	**$ 2,820**	**$ 528**	**$ 1,388**
11		908000 Allocator	100.0%		0.97%	10.98%	67.30%	18.01%	1.63%	0.67%	0.13%	0.33%

NET WRITE-OFF ALLOCATION SUMMARY: 12-MO'S ENDING JUN'17

				NET WRITE-OFF DELIVERY/COMMODITY ALLOCATION SUMMARY				
Residential				Comm %	Delivery %	Comm $$	Delivery $$	Total
Residential Non-Heating	101	198,766.21	4.0%	22.82%	77.18%	$45,368	$153,399	
Residential Low Inc Non-Heating	110	157.18	0.0%	30.39%	69.61%	$48	$109	
Residential Heating	124	3,729,836.40	74.3%	36.24%	63.76%	$1,351,787	$2,378,049	
Residential Low Inc Heating	130	564,778.98	11.2%	37.63%	62.37%	$212,541	$352,238	
		$4,493,538.77	**89.49%**	35.93%	64.07%	$1,614,512	$2,879,026	$4,493,539
Non-Residential								
Small Commercial General	210	**302,543.01**	6.0%	37.45%	62.55%	$113,304	$189,239	
Small Commercial General FT	212	**-356.25**	0.0%	5.35%	94.65%	-$19	-$337	
Small Commercial General TSS	213	**1,436.90**	0.0%	0.00%	100.00%	$0	$1,437	
Medium Commercial General FT	222	**1,477.90**	0.0%	0.00%	100.00%	$0	$1,478	
Medium Commercial General FT	22E	**0.00**	0.0%	0.00%	100.00%	$0	$0	
Medium Commercial General	223	**205,892.89**	4.1%	47.85%	52.15%	$98,524	$107,369	
Large Low Load Factor FT	332	**0.00**	0.0%	2.12%	97.88%	$0	$0	
Large Low Load Factor TSS	333	**13,063.80**	0.3%	0.00%	100.00%	$0	$13,064	
Large Low Load Factor	336	**243.96**	0.0%	49.24%	50.76%	$120	$124	
Extra Large High Load Factor TSS	243	**3,688.31**	0.1%	0.00%	100.00%	$0	$3,688	
Extra Large High Load Factor FT	24E	**0.00**	0.0%	0.00%	100.00%	$0	$0	
Extra Large High Load Factor - NF	77E	**0.00**	0.0%	0.00%	100.00%	$0	$0	
		$527,990.52	**10.51%**	30.33%	69.67%	$160,123	$367,868	$527,991
		$5,021,529.29	**100.0%**	34.40%	65.60%	$1,727,606	$3,293,924	$5,021,529

NATIONAL GRID - RHODE ISLAND
GAS COST OF SERVICE STUDY
12 MONTHS ENDED AUGUST 31, 2019

	SUMMARY OF RESULTS-1	ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
	RATE BASE				
1	GAS PLANT IN SERVICE		1,318,090,095	37,950,595	859,762,795
2	LESS: DEPREC & AMORT RES		430,361,294	15,070,819	293,520,026
3	NET UTILITY PLANT IN SERVICE		887,728,801	22,879,776	566,242,769
4	PLUS: CWIP		44,213,371	1,289,200	28,682,868
5	LESS: CONTRIB IN AID OF CONST		(946)	(26)	(617)
6	NET PLANT		931,943,118	24,169,002	594,926,254
	ADD:				
7	MATERIALS & SUPPLIES		2,680,174	78,150	1,738,729
8	PREPAID EXPENSES EXCL TAXES		204,501	5,888	133,392
9	UNAMORTIZED DEBT & INT LOCK		3,720,818	107,130	2,427,012
10	DEFERRED DEBITS		0	0	0
11	CASH WORKING CAPITAL		7,397,337	215,751	4,931,952
	DEDUCT:				
12	ACCUMULATED DEFERRED FIT		152,388,230	4,387,579	99,399,677
13	MERGER HOLD HARMLESS ADJ		18,662,756	537,340	12,173,328
14	CUSTOMER DEPOSITS		1,467,477	814	106,916
15	RATE BASE		773,427,484	19,650,188	492,477,417
	DEVELOPMENT OF RETURN				
16	SALES OF GAS TO ULTIMATE CUST		212,659,406	4,778,670	139,613,983
17	OTHER OPERATING REVENUES		1,864,184	41,879	948,761
18	TOTAL GAS OPERATING REVENUES		214,523,590	4,820,549	140,562,745
	LESS:				
19	PURCHASED GAS COSTS		0	0	0
20	OTHER OPER & MAINT EXPENSE		90,352,613	3,364,191	61,230,804
21	DEPRECIATION & AMORTIZATION EXP		43,162,745	1,236,062	28,153,417
22	OTHER TAXES		29,859,300	873,817	19,532,796
23	INCOME TAXES		11,091,251	(401,390)	6,746,505
24	INTEREST ON CUSTOMER DEPOSITS		35,184	20	2,563
25	TOTAL OPERATING EXPENSE		174,501,093	5,072,700	115,666,085
26	OPERATING INCOME		40,022,498	(252,151)	24,896,660
27	RATE OF RETURN		5.17%	-1.28%	5.06%
28	RELATIVE RATE OF RETURN		1.000	-0.248	0.977

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NATIONAL GRID - RHODE ISLAND
GAS COST OF SERVICE STUDY
12 MONTHS ENDED AUGUST 31, 2019

	SUMMARY OF RESULTS-1	ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
	RATE BASE								
1	GAS PLANT IN SERVICE		107,924,962	149,048,323	66,043,322	26,620,375	11,505,665	51,296,513	7,937,545
2	LESS: DEPREC & AMORT RES		36,182,440	41,899,274	17,523,475	7,023,726	3,150,391	13,856,262	2,134,881
3	NET UTILITY PLANT IN SERVICE		71,742,522	107,149,049	48,519,847	19,596,649	8,355,274	37,440,251	5,802,664
4	PLUS: CWIP		3,587,968	5,015,085	2,263,851	921,567	396,147	1,780,725	275,961
5	LESS: CONTRIB IN AID OF CONST		(75)	(106)	(51)	(21)	(8)	(36)	(6)
6	NET PLANT		75,330,564	112,164,240	50,783,750	20,518,237	8,751,428	39,221,012	6,078,631
	ADD:								
7	MATERIALS & SUPPLIES		217,499	304,010	137,233	55,865	24,014	107,946	16,728
8	PREPAID EXPENSES EXCL TAXES		16,745	23,125	10,247	4,130	1,785	7,959	1,232
9	UNAMORTIZED DEBT & INT LOCK		304,660	420,746	186,433	75,146	32,479	144,804	22,407
10	DEFERRED DEBITS		0	0	0	0	0	0	0
11	CASH WORKING CAPITAL		654,526	812,737	312,904	111,612	61,080	256,652	40,122
	DEDUCT:								
12	ACCUMULATED DEFERRED FIT		12,477,519	17,231,910	7,635,461	3,077,659	1,330,203	5,930,539	917,683
13	MERGER HOLD HARMLESS ADJ		1,528,103	2,110,366	935,103	376,916	162,908	726,304	112,387
14	CUSTOMER DEPOSITS		703,645	479,250	109,524	45,043	2,889	19,394	0
15	RATE BASE		61,814,727	93,903,332	42,750,478	17,265,372	7,374,785	33,062,135	5,129,049
	DEVELOPMENT OF RETURN								
16	SALES OF GAS TO ULTIMATE CUST		17,052,659	24,886,778	10,707,720	3,674,529	1,997,712	8,554,224	1,393,132
17	OTHER OPERATING REVENUES		244,765	323,412	128,342	47,380	31,679	89,206	8,759
18	TOTAL GAS OPERATING REVENUES		17,297,423	25,210,191	10,836,062	3,721,909	2,029,390	8,643,430	1,401,891
	LESS:								
19	PURCHASED GAS COSTS		0	0	0	0	0	0	0
20	OTHER OPER & MAINT EXPENSE		8,826,425	9,166,487	3,011,865	1,178,157	621,177	2,578,089	375,418
21	DEPRECIATION & AMORTIZATION EXP		3,523,548	4,872,543	2,173,507	876,361	377,856	1,688,032	261,420
22	OTHER TAXES		2,466,987	3,358,455	1,464,873	589,213	256,890	1,140,362	175,908
23	INCOME TAXES		318,940	1,904,807	1,088,213	225,170	205,845	842,059	161,102
24	INTEREST ON CUSTOMER DEPOSITS		16,870	11,490	2,626	1,080	69	465	0
25	TOTAL OPERATING EXPENSE		15,152,771	19,313,781	7,741,085	2,869,981	1,461,837	6,249,006	973,847
26	OPERATING INCOME		2,144,652	5,896,409	3,094,977	851,929	567,553	2,394,424	428,044
27	RATE OF RETURN		3.47%	6.28%	7.24%	4.93%	7.70%	7.24%	8.35%
28	RELATIVE RATE OF RETURN		0.670	1.213	1.399	0.954	1.487	1.400	1.613

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GAS COST OF SERVICE STUDY
12 MONTHS ENDED AUGUST 31, 2019

	DEVELOPMENT OF RATE BASE-2	ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
	GAS PLANT IN SERVICE				
	INTANGIBLE PLANT				
1	302-GAS FRANCHISES & CONSENTS	PLANT	213,499	6,147	139,261
2	303-MISC INTANGIBLE PLT	PLANT	5,085	146	3,317
3	303-MISC INTANGIBLE CAPITAL SOFT	LABOR	29,888,379	1,013,162	20,103,599
4	TOTAL INTANGIBLE PLANT		30,106,964	1,019,456	20,246,177
	PRODUCTION PLANT LNG				
5	304-LAND & LAND RIGHTS	DSWNLNG	853,973	7,095	642,924
6	305-STRUCTURES & IMPROVEMENTS	DSWNLNG	1,799,946	14,955	1,355,111
7	307-OTHER POWER EQUIP	DSWNLNG	46,159	384	34,751
8	311-LNG GAS EQUIPMENT	DSWNLNG	8,613,137	71,563	6,484,502
9	320-OTHER EQUIPMENT	DSWNLNG	489,062	4,063	368,196
10	TOTAL PRODUCTION PLANT LNG		11,802,278	98,060	8,885,484
	STORAGE PLANT LNG				
11	360-STORAGE LAND & LAND RIGHTS	DSWNLNG	261,152	2,170	196,611
12	361-STOR STRUCT & IMPROV	DSWNLNG	3,385,050	28,125	2,548,475
13	362-STORAGE GAS HOLDERS	DSWNLNG	4,605,653	38,266	3,467,420
14	363-STOR PURIFICATION EQUIP	DSWNLNG	13,892,912	115,430	10,459,443
15	TOTAL STORAGE PLANT LNG		22,144,766	183,991	16,671,949

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	DEVELOPMENT OF RATE BASE-2	ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
	GAS PLANT IN SERVICE								
	INTANGIBLE PLANT								
1	302-GAS FRANCHISES & CONSENTS	PLANT	17,481	24,142	10,697	4,312	1,864	8,309	1,286
2	303-MISC INTANGIBLE PLT	PLANT	416	575	255	103	44	198	31
3	303-MISC INTANGIBLE CAPITAL SOFT	LABOR	2,686,527	3,184,931	1,159,586	453,982	220,283	928,577	137,733
4	TOTAL INTANGIBLE PLANT		2,704,424	3,209,648	1,170,539	458,396	222,191	937,084	139,050
	PRODUCTION PLANT LNG								
5	304-LAND & LAND RIGHTS	DSWNLNG	83,034	93,453	22,142	3,082	1,896	347	0
6	305-STRUCTURES & IMPROVEMENTS	DSWNLNG	175,014	196,974	46,670	6,496	3,995	731	0
7	307-OTHER POWER EQUIP	DSWNLNG	4,488	5,051	1,197	167	102	19	0
8	311-LNG GAS EQUIPMENT	DSWNLNG	837,482	942,564	223,326	31,086	19,119	3,496	0
9	320-OTHER EQUIPMENT	DSWNLNG	47,553	53,520	12,681	1,765	1,086	199	0
10	TOTAL PRODUCTION PLANT LNG		1,147,572	1,291,562	306,016	42,596	26,197	4,791	0
	STORAGE PLANT LNG								
11	360-STORAGE LAND & LAND RIGHTS	DSWNLNG	25,393	28,579	6,771	943	580	106	0
12	361-STOR STRUCT & IMPROV	DSWNLNG	329,139	370,437	87,769	12,217	7,514	1,374	0
13	362-STORAGE GAS HOLDERS	DSWNLNG	447,822	504,012	119,418	16,622	10,223	1,869	0
14	363-STOR PURIFICATION EQUIP	DSWNLNG	1,350,851	1,520,347	360,223	50,141	30,838	5,639	0
15	TOTAL STORAGE PLANT LNG		2,153,205	2,423,374	574,181	79,923	49,155	8,989	0

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	DEVELOPMENT OF RATE BASE CON'T-3	ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
	DISTRIBUTION PLANT				
1	374-LAND & LAND RIGHTS	DISTR	925,104	8,171	460,613
2	375-GAS DIST STATION STRUCTURES	DISTR	10,212,827	90,200	5,085,012
3	376-MAINS 4' AND BELOW	DISTRL4	420,694,021	4,596,268	260,815,855
4	376-MAINS ABOVE 4"	DISTR	280,462,681	2,477,067	139,643,626
5	377-DIST COMP STATION EQ	DISTR	248,716	2,197	123,837
6	378-GAS MEAS & REG STATION EQ	DISTR	32,556,132	287,538	16,209,844
7	379-DIST MEAS & REG GS EQ	DISTR	12,106,307	106,924	6,027,785
8	380-SERVICES	CUST380	354,036,285	22,341,022	287,934,533
9	381-METERS	CUST381	63,874,722	3,237,175	44,097,083
10	382-METER INSTALLATION	CUST382	49,882,475	2,528,047	34,437,279
11	383-HOUSE REGULATORS	CUST383	937,222	47,498	647,028
12	384-HOUSE REGULATORS INSTALLS	CUST384	2,992,169	151,643	2,065,698
13	385-IND MEAS & REG STA EQUIP	CUST385	796,108	7,031	396,386
14	386-OTHER PROP CUST PREM	CUST386	381,896	3,373	190,148
15	387-DIST OTHER EQUIP	DISTR	785,775	6,940	391,241
16	TOTAL DISTRIBUTION PLANT		1,230,892,438	35,891,095	798,525,969
	GENERAL PLANT				
17	389-LAND & LAND RIGHTS	LABOR	285,357	9,673	191,938
18	390-STRUCTURES & IMPROV	LABOR	9,235,574	313,069	6,212,056
19	391-OFFICE EQUIPMENT	LABOR	2,384,968	80,846	1,604,183
20	392-TRANSPORTATION EQUIP	LABOR	625,738	21,211	420,885
21	393-STORES EQUIPMENT	DISTRPLT	16,876	492	10,948
22	394-TOOLS, SHOP & GARAGE EQ	DISTRPLT	5,344,353	155,834	3,467,082
23	395-LABORATORY EQUIPMENT	DISTRPLT	237,430	6,923	154,030
24	396-POWER OPERATED EQUIP	DISTRPLT	0	0	0
25	397-COMMUNICATION EQUIP	LABOR	975,600	33,071	656,211
26	398-MISCELLANEOUS EQUIP	LABOR	3,867,999	131,118	2,601,703
27	399-OTHER TANGIBLE PROPERTY	LABOR	169,755	5,754	114,181
28	TOT GENERAL PLANT		23,143,650	757,993	15,433,216
29	ADJUSTMENT	PLANT	0	0	0
30	TOTAL GAS PLANT IN SERVICE		1,318,090,095	37,950,595	859,762,795

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	DEVELOPMENT OF RATE BASE CON'T-3	ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
	DISTRIBUTION PLANT								
1	374-LAND & LAND RIGHTS	DISTR	59,897	125,821	63,262	25,941	28,686	132,094	20,620
2	375-GAS DIST STATION STRUCTURES	DISTR	661,238	1,389,025	698,388	286,381	316,680	1,458,270	227,633
3	376-MAINS 4' AND BELOW	DISTRL4	33,935,471	71,020,813	35,821,573	14,504,040	0	0	0
4	376-MAINS ABOVE 4"	DISTR	18,158,783	38,145,125	19,179,010	7,864,539	8,696,603	40,046,716	6,251,211
5	377-DIST COMP STATION EQ	DISTR	16,103	33,827	17,008	6,974	7,712	35,514	5,544
6	378-GAS MEAS & REG STATION EQ	DISTR	2,107,873	4,427,889	2,226,301	912,916	1,009,502	4,648,626	725,641
7	379-DIST MEAS & REG GS EQ	DISTR	783,833	1,646,553	827,871	339,477	375,393	1,728,636	269,837
8	380-SERVICES	CUST380	31,718,671	8,974,133	1,769,291	791,380	127,349	342,916	36,989
9	381-METERS	CUST381	6,686,372	7,375,361	1,241,942	471,952	220,266	489,505	55,065
10	382-METER INSTALLATION	CUST382	5,221,671	5,759,731	969,885	368,567	172,015	382,275	43,002
11	383-HOUSE REGULATORS	CUST383	98,108	108,217	18,223	6,925	3,232	7,182	808
12	384-HOUSE REGULATORS INSTALLS	CUST384	313,219	345,494	58,178	22,108	10,318	22,931	2,579
13	385-IND MEAS & REG STA EQUIP	CUST385	51,545	108,277	54,441	22,324	24,686	113,675	17,744
14	386-OTHER PROP CUST PREM	CUST386	24,726	51,941	26,115	10,709	11,842	54,530	8,512
15	387-DIST OTHER EQUIP	DISTR	50,876	106,872	53,734	22,034	24,365	112,199	17,514
16	TOTAL DISTRIBUTION PLANT		99,888,386	139,619,080	63,025,222	25,656,269	11,028,649	49,575,069	7,682,699
	GENERAL PLANT								
17	389-LAND & LAND RIGHTS	LABOR	25,649	30,408	11,071	4,334	2,103	8,866	1,315
18	390-STRUCTURES & IMPROV	LABOR	830,143	984,150	358,315	140,281	68,068	286,932	42,560
19	391-OFFICE EQUIPMENT	LABOR	214,374	254,144	92,530	36,226	17,578	74,097	10,991
20	392-TRANSPORTATION EQUIP	LABOR	56,245	66,679	24,277	9,504	4,612	19,441	2,884
21	393-STORES EQUIPMENT	DISTRPLT	1,370	1,914	864	352	151	680	105
22	394-TOOLS, SHOP & GARAGE EQ	DISTRPLT	433,701	606,205	273,646	111,396	47,885	215,248	33,357
23	395-LABORATORY EQUIPMENT	DISTRPLT	19,268	26,932	12,157	4,949	2,127	9,563	1,482
24	396-POWER OPERATED EQUIP	DISTRPLT	0	0	0	0	0	0	0
25	397-COMMUNICATION EQUIP	LABOR	87,692	103,961	37,851	14,819	7,190	30,310	4,496
26	398-MISCELLANEOUS EQUIP	LABOR	347,676	412,177	150,068	58,752	28,508	120,172	17,825
27	399-OTHER TANGIBLE PROPERTY	LABOR	15,258	18,089	6,586	2,578	1,251	5,274	782
28	TOT GENERAL PLANT		2,031,375	2,504,660	967,365	383,191	179,473	770,581	115,796
29	ADJUSTMENT	PLANT	0	0	0	0	0	0	0
30	TOTAL GAS PLANT IN SERVICE		107,924,962	149,048,323	66,043,322	26,620,375	11,505,665	51,296,513	7,937,545

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		ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
	DEVELOPMENT OF RATE BASE CON'T-4				
	DEPRECIATION & AMORTIZATION RESERVE				
	INTANGIBLE PLANT RESERVE				
1	302-GAS FRANCHISES & CONSENTS	PLT302	0	0	0
2	303-MISC INTANGIBLE PLT	PLT303	0	0	0
3	303-MISC INTANGIBLE CAPITAL SOFT	PLT303SL	27,463,251	930,955	18,472,403
4	TOT INTANGIBLE PLT RESERVE		27,463,251	930,955	18,472,403
	PRODUCTION PLANT LNG				
5	304-LAND & LAND RIGHTS	PLT304	30,049	250	22,623
6	305-STRUCTURES	PLT305	2,585,168	21,479	1,946,274
7	307-OTHER POWER EQUIP	PLT307	56,949	473	42,875
8	311-LNG GAS EQUIPMENT	PLT311	(1,124,529)	(9,343)	(846,615)
9	320-OTHER EQUIPMENT	PLT320	(117,301)	(975)	(88,311)
10	TOTAL PRODUCTION LNG RESERVE		1,430,336	11,884	1,076,846
	STORAGE PLANT LNG				
11	360-STORAGE LAND & LAND RIGHTS	PLT360	9,189	76	6,918
12	361-STOR STRUCT & IMPROV	PLT361	2,548,652	21,176	1,918,783
13	362-STORAGE GAS HOLDERS	PLT362	4,808,320	39,950	3,620,000
14	363-STOR PURIFICATION EQUIP	PLT363	6,215,291	51,640	4,679,255
15	TOTAL STORAGE PLANT LNG		13,581,452	112,842	10,224,957

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		ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
	DEVELOPMENT OF RATE BASE CON'T-4								
	DEPRECIATION & AMORTIZATION RESERVE								
	INTANGIBLE PLANT RESERVE								
1	302-GAS FRANCHISES & CONSENTS	PLT302	0	0	0	0	0	0	0
2	303-MISC INTANGIBLE PLT	PLT303	0	0	0	0	0	0	0
3	303-MISC INTANGIBLE CAPITAL SOFT	PLT303SL	2,468,543	2,926,507	1,065,498	417,146	202,409	853,233	126,558
4	TOT INTANGIBLE PLT RESERVE		2,468,543	2,926,507	1,065,498	417,146	202,409	853,233	126,558
	PRODUCTION PLANT LNG								
5	304-LAND & LAND RIGHTS	PLT304	2,922	3,288	779	108	67	12	0
6	305-STRUCTURES	PLT305	251,364	282,903	67,030	9,330	5,738	1,049	0
7	307-OTHER POWER EQUIP	PLT307	5,537	6,232	1,477	206	126	23	0
8	311-LNG GAS EQUIPMENT	PLT311	(109,341)	(123,061)	(29,157)	(4,059)	(2,496)	(456)	0
9	320-OTHER EQUIPMENT	PLT320	(11,406)	(12,837)	(3,041)	(423)	(260)	(48)	0
10	TOTAL PRODUCTION LNG RESERVE		139,076	156,526	37,087	5,162	3,175	581	0
	STORAGE PLANT LNG								
11	360-STORAGE LAND & LAND RIGHTS	PLT360	894	1,006	238	33	20	4	0
12	361-STOR STRUCT & IMPROV	PLT361	247,813	278,907	66,083	9,198	5,657	1,035	0
13	362-STORAGE GAS HOLDERS	PLT362	467,528	526,190	124,673	17,354	10,673	1,952	0
14	363-STOR PURIFICATION EQUIP	PLT363	604,332	680,160	161,153	22,432	13,796	2,523	0
15	TOTAL STORAGE PLANT LNG		1,320,567	1,486,263	352,147	49,017	30,147	5,513	0

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	DEVELOPMENT OF RATE BASE CON'T-5	ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
	DISTRIBUTION PLANT RESERVE				
1	374-LAND & LAND RIGHTS	PLT374	32,552	288	16,208
2	375-GAS DIST STATION STRUCTURES	PLT375	7,347,540	64,894	3,658,373
3	376-MAINS	PLT376	165,807,384	1,672,680	94,699,428
4	377-DIST COMP STATION EQ	PLT377	740,463	6,540	368,680
5	378-GAS MEAS & REG STATION EQ	PLT378	6,423,156	56,730	3,198,118
6	379-DIST MEAS & REG GS EQ	PLT379	5,272,297	46,565	2,625,100
7	380-SERVICES	PLT380	161,447,245	10,187,929	131,303,596
8	381-METERS	PLT381	28,855,873	1,462,418	19,921,180
9	382-METER INSTALLATION	PLT382	7,314,208	370,685	5,049,497
10	383-HOUSE REGULATORS	PLT383	758,233	38,427	523,460
11	384-HOUSE REGULATORS INSTALLS	PLT384	715,637	36,269	494,053
12	385-IND MEAS & REG STA EQUIP	PLT385	362,761	3,204	180,620
13	386-OTHER PROP CUST PREM	PLT386	407,657	3,600	202,974
14	387-DIST OTHER EQUIP	PLT387	568,351	5,020	282,984
15	TOTAL DISTRIBUTION PLANT		386,053,356	13,955,248	262,524,272
	GENERAL PLT RESERVE				
16	389-LAND & LAND RIGHTS	PLT389	10,041	340	6,754
17	390-STRUCTURES & IMPROV	PLT390	840,618	28,495	565,419
18	391-OFFICE EQUIPMENT	PLT391	(1,200,785)	(40,704)	(807,675)
19	392-TRANSPORTATION EQUIP	PLT392	22,018	746	14,810
20	393-STORES EQUIPMENT	PLT393	594	17	385
21	394-TOOLS, SHOP & GARAGE EQ	PLT394	316,573	9,231	205,373
22	395-LABORATORY EQUIPMENT	PLT395	155,940	4,547	101,164
23	396-POWER OPERATED EQUIP	PLT396	0	0	0
24	397-COMMUNICATION EQUIP	PLT397	893,657	30,293	601,094
25	398-MISCELLANEOUS EQUIP	PLT398	788,269	26,721	530,208
26	399-OTHER TANGIBLE PROPERTY	PLT399	5,973	202	4,018
27	TOTAL GENERAL PLT RESERVE		1,832,898	59,890	1,221,548
28	ADJUSTMENT	PLANT	0	0	0
29	TOTAL DEPRECIATION RESERVE		430,361,294	15,070,819	293,520,026

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	DEVELOPMENT OF RATE BASE CON'T-5	ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
	DISTRIBUTION PLANT RESERVE								
1	374-LAND & LAND RIGHTS	PLT374	2,108	4,427	2,226	913	1,009	4,648	726
2	375-GAS DIST STATION STRUCTURES	PLT375	475,722	999,323	502,450	206,035	227,833	1,049,141	163,769
3	376-MAINS	PLT376	12,319,089	25,815,226	13,006,369	5,289,653	2,056,546	9,470,125	1,478,267
4	377-DIST COMP STATION EQ	PLT377	47,942	100,709	50,635	20,764	22,960	105,729	16,504
5	378-GAS MEAS & REG STATION EQ	PLT378	415,872	873,600	439,238	180,114	199,170	917,150	143,165
6	379-DIST MEAS & REG GS EQ	PLT379	341,359	717,074	360,538	147,842	163,484	752,821	117,514
7	380-SERVICES	PLT380	14,464,314	4,092,375	806,830	360,884	58,073	156,376	16,868
8	381-METERS	PLT381	3,020,618	3,331,873	561,056	213,208	99,507	221,138	24,876
9	382-METER INSTALLATION	PLT382	765,647	844,543	142,213	54,043	25,222	56,053	6,305
10	383-HOUSE REGULATORS	PLT383	79,371	87,550	14,743	5,602	2,615	5,811	654
11	384-HOUSE REGULATORS INSTALLS	PLT384	74,912	82,632	13,914	5,288	2,468	5,484	617
12	385-IND MEAS & REG STA EQUIP	PLT385	23,487	49,338	24,807	10,172	11,249	51,798	8,086
13	386-OTHER PROP CUST PREM	PLT386	26,394	55,445	27,877	11,431	12,641	58,209	9,086
14	387-DIST OTHER EQUIP	PLT387	36,798	77,300	38,866	15,937	17,623	81,154	12,668
15	TOTAL DISTRIBUTION PLANT		32,093,636	37,131,414	15,991,763	6,521,885	2,900,399	12,935,635	1,999,104
	GENERAL PLT RESERVE								
16	389-LAND & LAND RIGHTS	PLT389	903	1,070	390	153	74	312	46
17	390-STRUCTURES & IMPROV	PLT390	75,559	89,577	32,614	12,768	6,196	26,116	3,874
18	391-OFFICE EQUIPMENT	PLT391	(107,933)	(127,957)	(46,587)	(18,239)	(8,850)	(37,306)	(5,534)
19	392-TRANSPORTATION EQUIP	PLT392	1,979	2,346	854	334	162	684	101
20	393-STORES EQUIPMENT	PLT393	48	67	30	12	5	24	4
21	394-TOOLS, SHOP & GARAGE EQ	PLT394	25,690	35,909	16,209	6,599	2,836	12,750	1,976
22	395-LABORATORY EQUIPMENT	PLT395	12,655	17,688	7,985	3,250	1,397	6,281	973
23	396-POWER OPERATED EQUIP	PLT396	0	0	0	0	0	0	0
24	397-COMMUNICATION EQUIP	PLT397	80,327	95,229	34,671	13,574	6,586	27,764	4,118
25	398-MISCELLANEOUS EQUIP	PLT398	70,854	83,999	30,583	11,973	5,810	24,490	3,633
26	399-OTHER TANGIBLE PROPERTY	PLT399	537	637	232	91	44	186	28
27	TOTAL GENERAL PLT RESERVE		160,618	198,565	76,981	30,515	14,261	61,301	9,219
28	ADJUSTMENT	PLANT	0	0	0	0	0	0	0
29	TOTAL DEPRECIATION RESERVE		36,182,440	41,899,274	17,523,475	7,023,726	3,150,391	13,856,262	2,134,881

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	DEVELOPMENT OF RATE BASE CON'T-6	ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
1	TOTAL GAS PLANT IN SERVICE		1,318,090,095	37,950,595	859,762,795
2	LESS: ACCUM DEPREC RESERVE		430,361,294	15,070,819	293,520,026
3	NET UTILITY PLANT IN SERVICE		887,728,801	22,879,776	566,242,769
4	PLUS: CWIP	DISTRPLT	44,213,371	1,289,200	28,682,868
5	LESS: CONTRIB IN AID OF CONST	PLT37680	(946)	(26)	(617)
6	NET PLANT		931,943,118	24,169,002	594,926,254
	ADDITIONS TO NET PLANT				
7	MATERIALS & SUPPLIES	DISTRPLT	2,680,174	78,150	1,738,729
8	PREPAID EXPENSES EXCL TAXES	PLANT	204,501	5,888	133,392
9	UNAMORTIZED INTEREST & DEBT	PLANT	3,720,818	107,130	2,427,012
10	DEFERRED DEBITS	PLANT	0	0	0
11	CASH WORKING CAPITAL	CWCEXP	7,397,337	215,751	4,931,952
12	TOTAL ADDITIONS TO NET PLT		14,002,829	406,919	9,231,085

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	DEVELOPMENT OF RATE BASE CON'T-6	ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
1	TOTAL GAS PLANT IN SERVICE		107,924,962	149,048,323	66,043,322	26,620,375	11,505,665	51,296,513	7,937,545
2	LESS: ACCUM DEPREC RESERVE		36,182,440	41,899,274	17,523,475	7,023,726	3,150,391	13,856,262	2,134,881
3	NET UTILITY PLANT IN SERVICE		71,742,522	107,149,049	48,519,847	19,596,649	8,355,274	37,440,251	5,802,664
4	PLUS: CWIP	DISTRPLT	3,587,968	5,015,085	2,263,851	921,567	396,147	1,780,725	275,961
5	LESS: CONTRIB IN AID OF CONST	PLT37680	(75)	(106)	(51)	(21)	(8)	(36)	(6)
6	NET PLANT		75,330,564	112,164,240	50,783,750	20,518,237	8,751,428	39,221,012	6,078,631
	ADDITIONS TO NET PLANT								
7	MATERIALS & SUPPLIES	DISTRPLT	217,499	304,010	137,233	55,865	24,014	107,946	16,728
8	PREPAID EXPENSES EXCL TAXES	PLANT	16,745	23,125	10,247	4,130	1,785	7,959	1,232
9	UNAMORTIZED INTEREST & DEBT	PLANT	304,660	420,746	186,433	75,146	32,479	144,804	22,407
10	DEFERRED DEBITS	PLANT	0	0	0	0	0	0	0
11	CASH WORKING CAPITAL	CWCEXP	654,526	812,737	312,904	111,612	61,080	256,652	40,122
12	TOTAL ADDITIONS TO NET PLT		1,193,430	1,560,618	646,816	246,753	119,358	517,361	80,489

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	DEVELOPMENT OF RATE BASE CON'T-7	ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
	DEDUCTIONS TO NET PLANT				
1	ACCUMULATED DEFERRED FIT	PLANT	152,388,230	4,387,579	99,399,677
2	MERGER HOLD HARMLESS ADJ	PLANT	18,662,756	537,340	12,173,328
3	CUSTOMER DEPOSITS	CUSTDEP	1,467,477	814	106,916
4	INJURIES & DAMAGES RESERVE	EXP925	0	0	0
5	TOTAL DEDUCTIONS TO NET PLT		172,518,463	4,925,732	111,679,922
6	TOTAL RATE BASE		773,427,484	19,650,188	492,477,417

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	DEVELOPMENT OF RATE BASE CON'T-7	ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
	DEDUCTIONS TO NET PLANT								
1	ACCUMULATED DEFERRED FIT	PLANT	12,477,519	17,231,910	7,635,461	3,077,659	1,330,203	5,930,539	917,683
2	MERGER HOLD HARMLESS ADJ	PLANT	1,528,103	2,110,366	935,103	376,916	162,908	726,304	112,387
3	CUSTOMER DEPOSITS	CUSTDEP	703,645	479,250	109,524	45,043	2,889	19,394	0
4	INJURIES & DAMAGES RESERVE	EXP925	0	0	0	0	0	0	0
5	TOTAL DEDUCTIONS TO NET PLT		14,709,267	19,821,527	8,680,088	3,499,618	1,496,001	6,676,238	1,030,070
6	TOTAL RATE BASE		61,814,727	93,903,332	42,750,478	17,265,372	7,374,785	33,062,135	5,129,049

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REVENUES-8

		ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
	GAS OPERATING REVENUES				
1	TOTAL FIRM SALES OF GAS		212,434,410	4,776,683	139,501,957
2	SPECIAL CONTRACT	DISTR	224,996	1,987	112,026
3	OTHER	DISTR	0	0	0
4	TOTAL REVENUE SALES OF GAS		212,659,406	4,778,670	139,613,983
	OTHER OPERATING REVENUES				
	LATE PAYMENT CHARGES				
5	C & I SMALL RATE 21	C488R21	125,668	0	0
6	C & I MEDIUM RATE 22	C488R22	158,935	0	0
7	C & I LARGE LLF RATE 33	C488R33	55,462	0	0
8	C & I LARGE HLF RATE 23	C488R23	18,005	0	0
9	C & I XLARGE LLF RATE 34	C488R34	18,982	0	0
10	C & I XLARGE HLF RATE 24	C488R24	32,599	0	0
11	TOTAL LATE PAYMENT CHARGES		409,652	0	0
12	MISCELLANEOUS FEES/CREDITS	PLANT	344,338	9,914	224,605
13	NON UTILITY BILLING	PLANT	937,241	26,985	611,343
14	RENTAL EXPENSE	PLANT	248,262	7,148	161,936
15	AFUDC - EQUITY/DEBT	PLANT	(23,725)	(683)	(15,476)
16	MISCELLANEOUS REV ADJ	PLANT	(51,583)	(1,485)	(33,647)
17	TOTAL OTHER OPERATING REV		1,864,184	41,879	948,761
18	TOTAL GAS OPERATING REVENUE		214,523,590	4,820,549	140,562,745

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	REVENUES-8	ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
	GAS OPERATING REVENUES								
1	TOTAL FIRM SALES OF GAS		17,038,091	24,856,177	10,692,334	3,668,219	1,990,735	8,522,097	1,388,117
2	SPECIAL CONTRACT	DISTR	14,568	30,601	15,386	6,309	6,977	32,127	5,015
3	OTHER	DISTR	0	0	0	0	0	0	0
4	TOTAL REVENUE SALES OF GAS		17,052,659	24,886,778	10,707,720	3,674,529	1,997,712	8,554,224	1,393,132
	OTHER OPERATING REVENUES								
	LATE PAYMENT CHARGES								
5	C & I SMALL RATE 21	C488R21	125,668	0	0	0	0	0	0
6	C & I MEDIUM RATE 22	C488R22	0	158,935	0	0	0	0	0
7	C & I LARGE LLF RATE 33	C488R33	0	0	55,462	0	0	0	0
8	C & I LARGE HLF RATE 23	C488R23	0	0	0	18,005	0	0	0
9	C & I XLARGE LLF RATE 34	C488R34	0	0	0	0	18,982	0	0
10	C & I XLARGE HLF RATE 24	C488R24	0	0	0	0	0	32,599	0
11	TOTAL LATE PAYMENT CHARGES		125,668	158,935	55,462	18,005	18,982	32,599	0
12	MISCELLANEOUS FEES/CREDITS	PLANT	28,194	38,937	17,253	6,954	3,006	13,401	2,074
13	NON UTILITY BILLING	PLANT	76,741	105,982	46,961	18,929	8,181	36,475	5,644
14	RENTAL EXPENSE	PLANT	20,328	28,073	12,439	5,014	2,167	9,662	1,495
15	AFUDC - EQUITY/DEBT	PLANT	(1,943)	(2,683)	(1,189)	(479)	(207)	(923)	(143)
16	MISCELLANEOUS REV ADJ	PLANT	(4,224)	(5,833)	(2,585)	(1,042)	(450)	(2,007)	(311)
17	TOTAL OTHER OPERATING REV		244,765	323,412	128,342	47,380	31,679	89,206	8,759
18	TOTAL GAS OPERATING REVENUE		17,297,423	25,210,191	10,836,062	3,721,909	2,029,390	8,643,430	1,401,891

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OPER & MAINT EXPENSE-9

		ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
	OPERATION & MAINTENANCE EXPENSE				
	PURCHASED GAS SUPPLY EXPENSES				
	PURCHASED GAS SUPPLY				
	804 PURCHASED GAS COSTS				
1	TOTAL DIRECT GAS COSTS	EGAS	0	0	0
2	TOTAL DIRECT GAS COSTS		0	0	0
3	812-GAS USED OTHER UTILITY OP	EGAS	0	0	0
4	813-OTH GAS SUPPLY EXP	EGAS	3,158	46	2,299
5	TOTAL GAS SUPPLY EXPENSE		3,158	46	2,299
6	TOTAL PRODUCTION EXPENSE		3,158	46	2,299

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	OPER & MAINT EXPENSE-9	ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
	OPERATION & MAINTENANCE EXPENSE								
	PURCHASED GAS SUPPLY EXPENSES								
	PURCHASED GAS SUPPLY								
	804 PURCHASED GAS COSTS								
1	TOTAL DIRECT GAS COSTS	EGAS	0	0	0	0	0	0	0
2	TOTAL DIRECT GAS COSTS		0	0	0	0	0	0	0
3	812-GAS USED OTHER UTILITY OP	EGAS	0	0	0	0	0	0	0
4	813-OTH GAS SUPPLY EXP	EGAS	276	388	76	28	8	9	28
5	TOTAL GAS SUPPLY EXPENSE		276	388	76	28	8	9	28
6	TOTAL PRODUCTION EXPENSE		276	388	76	28	8	9	28

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	OPER & MAINT EXPENSE CON'T-10	ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
	PURCHASED GAS SUPPLY EXPENSES				
	LOCAL STORAGE EXPENSES				
1	841-OPERATION LABOR & EXPENSES	TLABSO	1,986,638	16,506	1,495,664
2	842-RENTS	DSWNLNG	15,848	132	11,932
3	843-MAINT OF VAPORIZING EQUIP	DSWNLNG	11,947	99	8,994
4	844-OPER SUPERVISION & ENGINEER	TLABSO	0	0	0
5	845-FUEL & POWER	DSWNLNG	0	0	0
6	846-OTHER EXPENSES	DSWNLNG	0	0	0
7	847.1-MAINT SUPERVISION & ENG	TLABSO	0	0	0
8	847.2-MAINT STRUCT & INMPROV	DSWNLNG	0	0	0
9	847.3-MAINT LNG PROCESS TERM EQ	DSWNLNG	0	0	0
10	847.5-MAINT MEAS/REG EQUIP	DSWNLNG	0	0	0
11	847.8-MAINT OF VAPORIZING EQ	DSWNLNG	0	0	0
12	LNG ADJUSTMENT GCR COSTS	DSWNLNG	0	0	0
13	TOTAL STORAGE EXPENSES		2,014,433	16,737	1,516,590

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	OPER & MAINT EXPENSE CON'T-10	ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
	PURCHASED GAS SUPPLY EXPENSES								
	LOCAL STORAGE EXPENSES								
1	841-OPERATION LABOR & EXPENSES	TLABSO	193,167	217,404	51,511	7,170	4,410	806	0
2	842-RENTS	DSWNLNG	1,541	1,734	411	57	35	6	0
3	843-MAINT OF VAPORIZING EQUIP	DSWNLNG	1,162	1,307	310	43	27	5	0
4	844-OPER SUPERVISION & ENGINEER	TLABSO	0	0	0	0	0	0	0
5	845-FUEL & POWER	DSWNLNG	0	0	0	0	0	0	0
6	846-OTHER EXPENSES	DSWNLNG	0	0	0	0	0	0	0
7	847.1-MAINT SUPERVISION & ENG	TLABSO	0	0	0	0	0	0	0
8	847.2-MAINT STRUCT & INMPROV	DSWNLNG	0	0	0	0	0	0	0
9	847.3-MAINT LNG PROCESS TERM EQ	DSWNLNG	0	0	0	0	0	0	0
10	847.5-MAINT MEAS/REG EQUIP	DSWNLNG	0	0	0	0	0	0	0
11	847.8-MAINT OF VAPORIZING EQ	DSWNLNG	0	0	0	0	0	0	0
12	LNG ADJUSTMENT GCR COSTS	DSWNLNG	0	0	0	0	0	0	0
13	TOTAL STORAGE EXPENSES		195,870	220,446	52,231	7,270	4,471	818	0

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	OPER & MAINT EXPENSE CON'T-11	ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
	DISTRIBUTION EXPENSES				
	OPERATION EXPENSE				
1	850-OPER SUPER & ENGINEERING	TLABDO	11,195	464	7,412
2	861-MAINT SUPER & ENGINEERING	TLABDO	71,138	2,948	47,101
3	863-MAINTENANCE OF MAINS	PLT376	164	2	93
4	870-SUPER & ENGINEERING	TLABDO	3,206,556	132,859	2,123,092
5	871-SYS CONTROL & LOAD DISP	DISTR	1,142,477	10,090	568,844
6	873-COMP STATION FUEL & POWER	PLT377	18,026	159	8,975
7	874-MAINS & SERVICE EXPENSE	PLT37680	3,636,604	101,373	2,372,472
8	875-OPER STATION EXP - GENERAL	PLT3789	864,849	7,638	430,612
9	876-OPER STATION EXP - INDUST	PLT385	32,737	289	16,300
10	878-METER & HOUSE REG EXP	PLT3814	10,138,564	513,823	6,999,343
11	879-CUSTOMER INSTALL EXP	PLT3804	402,373	24,144	314,906
12	880-OTHER EXPENSES	EXP8719	7,002,123	283,575	4,619,649
13	881-RENTS	EXP8710	(29,557)	(1,197)	(19,500)
14	TOTAL OPERATION EXPENSE		26,497,246	1,076,168	17,489,301
	MAINTENANCE				
15	885-SUPERVISION	TLABDM	485,752	19,899	336,016
16	887-MAINTENANCE OF MAINS	PLT376	2,553,396	25,759	1,458,350
17	888-MAINT COMPRESSOR STA EQ	PLT377	63,717	563	31,725
18	889-MT OF MEAS & REG STA EQ	PLT3789	714,998	6,315	356,001
19	890-MT OF REG EQ (INDUST)	PLT385	534,945	4,725	266,351
20	891-MT OF REG EQ (CITY GATE)	PLT3789	0	0	0
21	892-MAINTENANCE OF SERVICES	PLT380	4,164,710	262,809	3,387,121
22	893-MAINT METER & HOUSE REG	PLT3814	1,666,411	84,454	1,150,437
23	894-MAINT OTHER EQUIP	PLT387	(11,829)	(104)	(5,890)
24	TOTAL MAINTENANCE EXPENSE		10,172,100	404,419	6,980,112
25	TOTAL DISTRIBITION EXPENSES		36,669,346	1,480,587	24,469,413

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	OPER & MAINT EXPENSE CON'T-11	ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
	DISTRIBUTION EXPENSES								
	OPERATION EXPENSE								
1	850-OPER SUPER & ENGINEERING	TLABDO	1,059	1,292	355	141	86	335	50
2	861-MAINT SUPER & ENGINEERING	TLABDO	6,730	8,209	2,258	897	548	2,131	317
3	863-MAINTENANCE OF MAINS	PLT376	12	25	13	5	2	9	1
4	870-SUPER & ENGINEERING	TLABDO	303,376	370,001	101,767	40,430	24,700	96,060	14,271
5	871-SYS CONTROL & LOAD DISP	DISTR	73,971	155,386	78,127	32,037	35,426	163,132	25,465
6	873-COMP STATION FUEL & POWER	PLT377	1,167	2,452	1,233	505	559	2,574	402
7	874-MAINS & SERVICE EXPENSE	PLT37680	288,852	407,156	195,651	79,818	30,411	139,198	21,672
8	875-OPER STATION EXP - GENERAL	PLT3789	55,995	117,626	59,141	24,252	26,817	123,490	19,277
9	876-OPER STATION EXP - INDUST	PLT385	2,120	4,452	2,239	918	1,015	4,674	730
10	878-METER & HOUSE REG EXP	PLT3814	1,061,300	1,170,660	197,128	74,911	34,962	77,697	8,740
11	879-CUSTOMER INSTALL EXP	PLT3804	37,564	19,246	3,461	1,417	455	1,062	118
12	880-OTHER EXPENSES	EXP8719	655,965	809,506	231,589	92,233	55,913	220,742	32,951
13	881-RENTS	EXP8710	(2,769)	(3,417)	(978)	(389)	(236)	(932)	(139)
14	TOTAL OPERATION EXPENSE		2,485,342	3,062,593	871,984	347,174	210,658	830,174	123,853
	MAINTENANCE								
15	885-SUPERVISION	TLABDM	42,288	44,937	16,614	6,744	3,251	13,882	2,119
16	887-MAINTENANCE OF MAINS	PLT376	189,711	397,549	200,295	81,459	31,670	145,838	22,765
17	888-MAINT COMPRESSOR STA EQ	PLT377	4,125	8,666	4,357	1,787	1,976	9,098	1,420
18	889-MT OF MEAS & REG STA EQ	PLT3789	46,293	97,245	48,894	20,049	22,171	102,093	15,937
19	890-MT OF REG EQ (INDUST)	PLT385	34,635	72,757	36,581	15,001	16,588	76,384	11,923
20	891-MT OF REG EQ (CITY GATE)	PLT3789	0	0	0	0	0	0	0
21	892-MAINTENANCE OF SERVICES	PLT380	373,123	105,567	20,813	9,309	1,498	4,034	435
22	893-MAINT METER & HOUSE REG	PLT3814	174,439	192,414	32,401	12,313	5,746	12,771	1,437
23	894-MAINT OTHER EQUIP	PLT387	(766)	(1,609)	(809)	(332)	(367)	(1,689)	(264)
24	TOTAL MAINTENANCE EXPENSE		863,850	917,526	359,147	146,330	82,534	362,411	55,772
25	TOTAL DISTRIBITION EXPENSES		3,349,191	3,980,119	1,231,131	493,504	293,192	1,192,584	179,625

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	OPER & MAINT EXPENSE CON'T-12	ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
	CUSTOMER ACCOUNT				
1	901-SUPERVISION	TLABCA	323,788	17,993	279,794
2	902-METER READING EXPENSE	CUST902	526,656	29,124	386,857
3	903-CUST RECORDS & COLLECTION	CUST903	6,772,099	376,454	5,914,396
	904-UNCOLLECTIBLE ACCTS				
4	RESID NON HTG RATE 10,11 & 80	REVCLAIM	152,600	4,740	100,410
5	RESID HEATING RATE 12 & 13	REVCLAIM	3,188,263	99,038	2,097,861
6	COMM & IND SMALL RATE 21	REVCLAIM	218,490	6,787	143,765
7	COMM & IND MEDIUM RATE 22	REVCLAIM	128,248	3,984	84,386
8	C & I LARGE LLF RATE 33	REVCLAIM	14,879	462	9,790
9	C & I LARGE HLF RATE 23	REVCLAIM	0	0	0
10	C & I XLARGE LLF RATE 34	REVCLAIM	0	0	0
11	C & I XLARGE HLF RATE 24	REVCLAIM	4,207	131	2,768
12	BAD DEBT EXPENSE ADJ	EXP904B	0	0	0
13	TOTAL ACCOUNT 904		3,706,686	115,142	2,438,981
14	905-MISC CUSTOMER ACCTS EXP	EXP9023	425,983	23,671	367,765
15	TOTAL CUSTOMER ACCTS EXP		11,755,212	562,384	9,387,793
	CUSTOMER SERVICES & INFO EXP				
16	907-CUST SERV & INFO SUPRV	TLABSE	25,709	214	2,855
17	908-CUST ASSISTANCE EXP & DSM	CUST908	356,148	2,962	39,553
18	909-INFO & INST ADV EXP & EE	CUST908	856,630	7,124	95,135
19	910-CUST SERVICE MISC EXP	CUST908	451,125	3,752	50,101
20	TOT CUST SERV & INFO EXP		1,689,611	14,051	187,645
	SALES EXPENSES				
21	911-SUPERVISION	TLABSA	36,714	1,333	24,350
22	912-DEMO & SELLING EXP	CUST912	482,809	17,535	320,209
23	913-ADVERTISING EXP	CUST912	52,547	1,908	34,850
24	916-MISCELLANEOUS SALES EXP	CUST912	158,725	5,765	105,270
25	TOTAL SALES EXPENSE		730,795	26,542	484,679

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	OPER & MAINT EXPENSE CON'T-12	ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
	CUSTOMER ACCOUNT								
1	901-SUPERVISION	TLABCA	16,729	7,183	1,486	339	61	185	19
2	902-METER READING EXPENSE	CUST902	42,419	37,306	21,788	5,446	1,035	2,414	268
3	903-CUST RECORDS & COLLECTION	CUST903	335,978	126,778	13,346	2,608	420	1,928	191
	904-UNCOLLECTIBLE ACCTS								
4	RESID NON HTG RATE 10,11 & 80	REVCLAIM	13,275	16,915	6,903	2,772	1,250	5,497	838
5	RESID HEATING RATE 12 & 13	REVCLAIM	277,350	353,399	144,225	57,923	26,106	114,844	17,516
6	COMM & IND SMALL RATE 21	REVCLAIM	19,007	24,218	9,884	3,969	1,789	7,870	1,200
7	COMM & IND MEDIUM RATE 22	REVCLAIM	11,156	14,215	5,801	2,330	1,050	4,620	705
8	C & I LARGE LLF RATE 33	REVCLAIM	1,294	1,649	673	270	122	536	82
9	C & I LARGE HLF RATE 23	REVCLAIM	0	0	0	0	0	0	0
10	C & I XLARGE LLF RATE 34	REVCLAIM	0	0	0	0	0	0	0
11	C & I XLARGE HLF RATE 24	REVCLAIM	366	466	190	76	34	152	23
12	BAD DEBT EXPENSE ADJ	EXP904B	0	0	0	0	0	0	0
13	TOTAL ACCOUNT 904		322,449	410,863	167,676	67,342	30,351	133,518	20,364
14	905-MISC CUSTOMER ACCTS EXP	EXP9023	22,085	9,577	2,051	470	85	253	27
15	TOTAL CUSTOMER ACCTS EXP		739,659	591,706	206,346	76,204	31,951	138,298	20,869
	CUSTOMER SERVICES & INFO EXP								
16	907-CUST SERV & INFO SUPRV	TLABSE	17,206	4,728	409	184	30	84	0
17	908-CUST ASSISTANCE EXP & DSM	CUST908	238,359	65,493	5,659	2,554	411	1,157	0
18	909-INFO & INST ADV EXP & EE	CUST908	573,316	157,529	13,612	6,142	988	2,782	0
19	910-CUST SERVICE MISC EXP	CUST908	301,924	82,959	7,169	3,235	521	1,465	0
20	TOT CUST SERV & INFO EXP		1,130,806	310,709	26,849	12,115	1,949	5,488	0
	SALES EXPENSES								
21	911-SUPERVISION	TLABSA	2,453	2,911	1,251	620	568	3,227	0
22	912-DEMO & SELLING EXP	CUST912	32,264	38,279	16,453	8,155	7,473	42,441	0
23	913-ADVERTISING EXP	CUST912	3,511	4,166	1,791	888	813	4,619	0
24	916-MISCELLANEOUS SALES EXP	CUST912	10,607	12,584	5,409	2,681	2,457	13,953	0
25	TOTAL SALES EXPENSE		48,835	57,940	24,904	12,344	11,312	64,240	0

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	OPER & MAINT EXPENSE CON'T-13	ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
	ADMINISTRATIVE & GENERAL EXPENSE				
1	920-ADMIN & GENERAL SALARY	LABOR	7,504,451	254,387	5,047,663
2	921-OFFICE SUPPLIES & EXP	LABOR	5,051,069	171,222	3,397,463
3	923-OUTSIDE SERV EMPLOYED	LABOR	1,962,066	66,510	1,319,730
4	924-PROPERTY INSURANCE	PLANT	308,610	8,886	201,300
5	925-INJURIES & DAMAGES	LABOR	1,365,329	46,282	918,351
6	926-EMPLOYED PENSION & BENF	LABOR	8,844,805	299,823	5,949,215
7	927-FRANCHISE REQUIREMENTS	REVCLAIM	0	0	0
8	928-REGULATORY COMM EXPENSE	REVCLAIM	1,910,440	59,345	1,257,060
9	929-DUPLICATE CHARGES - CREDIT	LABOR	0	0	0
10	930-MISCELLANEOUS GEN EXP	LABOR	887,223	30,075	596,766
11	931-RENTS	LABOR	9,647,448	327,031	6,489,092
12	TOTAL OPERATION EXPENSE		37,481,442	1,263,562	25,176,640
13	MAINTENANCE				
14	932-MAINT OF GENERAL PLT	GENPLT	8,615	282	5,745
15	TOTAL ADMIN & GEN EXPENSE		37,490,057	1,263,844	25,182,385
16	OTHER ADJUSTMENTS	REVCLAIM	0	0	0
17	OTHER ADJUSTMENTS	REVCLAIM	0	0	0
18	TOTAL GAS O & M EXPENSE		90,352,613	3,364,191	61,230,804

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	OPER & MAINT EXPENSE CON'T-13	ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
	ADMINISTRATIVE & GENERAL EXPENSE								
1	920-ADMIN & GENERAL SALARY	LABOR	674,540	799,681	291,152	113,987	55,309	233,150	34,582
2	921-OFFICE SUPPLIES & EXP	LABOR	454,017	538,246	195,968	76,722	37,227	156,927	23,277
3	923-OUTSIDE SERV EMPLOYED	LABOR	176,361	209,079	76,123	29,802	14,461	60,958	9,042
4	924-PROPERTY INSURANCE	PLANT	25,269	34,897	15,463	6,233	2,694	12,010	1,858
5	925-INJURIES & DAMAGES	LABOR	122,723	145,491	52,971	20,738	10,063	42,418	6,292
6	926-EMPLOYED PENSION & BENF	LABOR	795,018	942,510	343,154	134,346	65,188	274,792	40,759
7	927-FRANCHISE REQUIREMENTS	REVCLAIM	0	0	0	0	0	0	0
8	928-REGULATORY COMM EXPENSE	REVCLAIM	166,191	211,760	86,421	34,708	15,643	68,816	10,496
9	929-DUPLICATE CHARGES - CREDIT	LABOR	0	0	0	0	0	0	0
10	930-MISCELLANEOUS GEN EXP	LABOR	79,748	94,543	34,422	13,476	6,539	27,564	4,089
11	931-RENTS	LABOR	867,164	1,028,040	374,294	146,537	71,103	299,729	44,458
12	TOTAL OPERATION EXPENSE		3,361,032	4,004,247	1,469,967	576,550	278,227	1,176,364	174,852
13	MAINTENANCE								
14	932-MAINT OF GENERAL PLT	GENPLT	756	932	360	143	67	287	43
15	TOTAL ADMIN & GEN EXPENSE		3,361,788	4,005,180	1,470,327	576,692	278,294	1,176,651	174,896
16	OTHER ADJUSTMENTS	REVCLAIM	0	0	0	0	0	0	0
17	OTHER ADJUSTMENTS	REVCLAIM	0	0	0	0	0	0	0
18	TOTAL GAS O & M EXPENSE		8,826,425	9,166,487	3,011,865	1,178,157	621,177	2,578,089	375,418

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DEPRECIATION & AMORTIZATION-14

		ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
	DEPRECIATION & AMORTIZATION EXPENSE				
	AMORTIZATION EXPENSE				
1	AMORTIZATION RATE CASE EXP	REVCLAIM	210,606	6,542	138,577
2	ENVIROMENTAL COST AMORT	PLANT	1,310,000	37,718	854,486
3	TOTAL AMORTIZATION EXPENSE		1,520,606	44,260	993,063
	DEPRECIATION EXPENSE				
	INTANGIBLE PLANT				
4	302-GAS FRANCHISES & CONSENTS	PLT302	0	0	0
5	303-MISC INTANGIBLE PLT - CIS	PLT303	0	0	0
6	303-MISC INTANG PLT - SOFTWARE	PLT303SL	426,184	14,447	286,661
7	TOTAL INTANGIBLE EXPENSE		426,184	14,447	286,661
	PRODUCTION PLANT LPG				
8	304-LAND & LAND RIGHTS	PLT304	11,660	97	8,779
9	305-STRUCTURES	PLT305	86,064	715	64,794
10	307-OTHER POWER EQUIP	PLT307	1,475	12	1,110
11	311-LPG GAS EQUIPMENT	PLT311	274,079	2,277	206,344
12	320-OTHER EQUIPMENT	PLT320	35,353	294	26,616
13	TOTAL PRODUCTION PLANT		408,631	3,395	307,642
	PRODUCTION PLANT LNG				
14	360-LAND & LAND RIGHTS	PLT360	8,345	69	6,282
15	361-STRUCTURES & IMPROVEMENTS	PLT361	108,165	899	81,433
16	362-GAS HOLDERS & LNG EQUIP	PLT362	147,189	1,223	110,813
17	363-PURIFICATION EQUIP	PLT363	443,875	3,688	334,177
18	TOTAL PRODUCTION PLANT LNG		707,574	5,879	532,705

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	DEPRECIATION & AMORTIZATION-14	ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
	DEPRECIATION & AMORTIZATION EXPENSE								
	AMORTIZATION EXPENSE								
1	AMORTIZATION RATE CASE EXP	REVCLAIM	18,321	23,344	9,527	3,826	1,724	7,586	1,157
2	ENVIROMENTAL COST AMORT	PLANT	107,263	148,134	65,638	26,457	11,435	50,982	7,889
3	TOTAL AMORTIZATION EXPENSE		125,583	171,478	75,165	30,283	13,160	58,568	9,046
	DEPRECIATION EXPENSE								
	INTANGIBLE PLANT								
4	302-GAS FRANCHISES & CONSENTS	PLT302	0	0	0	0	0	0	0
5	303-MISC INTANGIBLE PLT - CIS	PLT303	0	0	0	0	0	0	0
6	303-MISC INTANG PLT - SOFTWARE	PLT303SL	38,308	45,415	16,535	6,473	3,141	13,241	1,964
7	TOTAL INTANGIBLE EXPENSE		38,308	45,415	16,535	6,473	3,141	13,241	1,964
	PRODUCTION PLANT LPG								
8	304-LAND & LAND RIGHTS	PLT304	1,134	1,276	302	42	26	5	0
9	305-STRUCTURES	PLT305	8,368	9,418	2,232	311	191	35	0
10	307-OTHER POWER EQUIP	PLT307	143	161	38	5	3	1	0
11	311-LPG GAS EQUIPMENT	PLT311	26,650	29,993	7,106	989	608	111	0
12	320-OTHER EQUIPMENT	PLT320	3,437	3,869	917	128	78	14	0
13	TOTAL PRODUCTION PLANT		39,732	44,718	10,595	1,475	907	166	0
	PRODUCTION PLANT LNG								
14	360-LAND & LAND RIGHTS	PLT360	811	913	216	30	19	3	0
15	361-STRUCTURES & IMPROVEMENTS	PLT361	10,517	11,837	2,805	390	240	44	0
16	362-GAS HOLDERS & LNG EQUIP	PLT362	14,312	16,107	3,816	531	327	60	0
17	363-PURIFICATION EQUIP	PLT363	43,159	48,575	11,509	1,602	985	180	0
18	TOTAL PRODUCTION PLANT LNG		68,800	77,432	18,346	2,554	1,571	287	0

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		ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
	DEPRECIATION & AMORTIZATION-15				
	DISTRIBUTION EXPENSE				
1	374-LAND & LAND RIGHTS	PLT374	30,571	270	15,221
2	375-GAS DIST STATION STRUCTURES	PLT375	340,071	3,004	169,323
3	376-MAINS	PLT376	22,502,719	227,010	12,852,230
4	377-DIST COMP STATION EQ	PLT377	7,945	70	3,956
5	378-GAS MEAS & REG STATION EQ	PLT378	1,001,382	8,844	498,593
6	379-DIST MEAS & REG GS EQ	PLT379	397,272	3,509	197,803
7	380-SERVICES	PLT380	11,483,344	724,642	9,339,301
8	381-METERS	PLT381	1,808,729	91,667	1,248,689
9	382-METER INSTALLATION	PLT382	1,492,822	75,656	1,030,597
10	383-HOUSE REGULATORS	PLT383	29,948	1,518	20,675
11	384-HOUSE REGULATORS INSTALLS	PLT384	86,561	4,387	59,759
12	385-IND MEAS & REG STA EQUIP	PLT385	25,439	225	12,666
13	386-OTHER PROP CUST PREM	PLT386	12,203	108	6,076
14	387-DIST OTHER EQUIP	PLT387	29,719	262	14,797
15	TOTAL DISTRIBUTION PLANT		39,248,725	1,141,171	25,469,687
	GENERAL PLANT EXP				
16	389-LAND & LAND RIGHTS	PLT389	9,118	309	6,133
17	390-STRUCTURES & IMPROV	PLT390	292,267	9,907	196,585
18	391-OFFICE EQUIPMENT	PLT391	8,778	298	5,904
19	392-TRANSPORTATION EQUIP	PLT392	0	0	0
20	393-STORES EQUIPMENT	PLT393	0	0	0
21	394-TOOLS, SHOP & GARAGE EQ	PLT394	200,870	5,857	130,312
22	395-LABORATORY EQUIPMENT	PLT395	7,080	206	4,593
23	396-POWER OPERATED EQUIP	PLT396	0	0	0
24	397-COMMUNICATION EQUIP	PLT397	14,415	489	9,696
25	398-MISCELLANEOUS EQUIP	PLT398	131,997	4,474	88,784
26	TOTAL GENERAL PLANT EXP		664,526	21,541	442,008
27	UNRECOVERED RESERVE	PLANT	186,500	5,370	121,650
28	TOTAL DEPR & AMORT EXPENSE		43,162,745	1,236,062	28,153,417

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	DEPRECIATION & AMORTIZATION-15	ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
	DISTRIBUTION EXPENSE								
1	374-LAND & LAND RIGHTS	PLT374	1,979	4,158	2,091	857	948	4,365	681
2	375-GAS DIST STATION STRUCTURES	PLT375	22,018	46,252	23,255	9,536	10,545	48,558	7,580
3	376-MAINS	PLT376	1,671,898	3,503,540	1,765,173	717,891	279,106	1,285,248	200,625
4	377-DIST COMP STATION EQ	PLT377	514	1,081	543	223	246	1,135	177
5	378-GAS MEAS & REG STATION EQ	PLT378	64,835	136,196	68,478	28,080	31,051	142,985	22,320
6	379-DIST MEAS & REG GS EQ	PLT379	25,722	54,032	27,167	11,140	12,319	56,726	8,855
7	380-SERVICES	PLT380	1,028,811	291,081	57,388	25,669	4,131	11,123	1,200
8	381-METERS	PLT381	189,337	208,847	35,168	13,364	6,237	13,861	1,559
9	382-METER INSTALLATION	PLT382	156,268	172,370	29,026	11,030	5,148	11,440	1,287
10	383-HOUSE REGULATORS	PLT383	3,135	3,458	582	221	103	230	26
11	384-HOUSE REGULATORS INSTALLS	PLT384	9,061	9,995	1,683	640	298	663	75
12	385-IND MEAS & REG STA EQUIP	PLT385	1,647	3,460	1,740	713	789	3,632	567
13	386-OTHER PROP CUST PREM	PLT386	790	1,660	834	342	378	1,742	272
14	387-DIST OTHER EQUIP	PLT387	1,924	4,042	2,032	833	922	4,244	662
15	TOTAL DISTRIBUTION PLANT		3,177,940	4,440,171	2,015,160	820,540	352,221	1,585,952	245,885
	GENERAL PLANT EXP								
16	389-LAND & LAND RIGHTS	PLT389	820	972	354	138	67	283	42
17	390-STRUCTURES & IMPROV	PLT390	26,270	31,144	11,339	4,439	2,154	9,080	1,347
18	391-OFFICE EQUIPMENT	PLT391	789	935	341	133	65	273	40
19	392-TRANSPORTATION EQUIP	PLT392	0	0	0	0	0	0	0
20	393-STORES EQUIPMENT	PLT393	0	0	0	0	0	0	0
21	394-TOOLS, SHOP & GARAGE EQ	PLT394	16,301	22,785	10,285	4,187	1,800	8,090	1,254
22	395-LABORATORY EQUIPMENT	PLT395	575	803	363	148	63	285	44
23	396-POWER OPERATED EQUIP	PLT396	0	0	0	0	0	0	0
24	397-COMMUNICATION EQUIP	PLT397	1,296	1,536	559	219	106	448	66
25	398-MISCELLANEOUS EQUIP	PLT398	11,865	14,066	5,121	2,005	973	4,101	608
26	TOTAL GENERAL PLANT EXP		57,915	72,241	28,362	11,269	5,228	22,560	3,402
27	UNRECOVERED RESERVE	PLANT	15,271	21,089	9,345	3,767	1,628	7,258	1,123
28	TOTAL DEPR & AMORT EXPENSE		3,523,548	4,872,543	2,173,507	876,361	377,856	1,688,032	261,420

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	STATE & FED TAXES & OTHER EXP-16	ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
	TAXES OTHER THAN INCOME				
1	PROPERTY TAX	PLANT	26,869,455	773,628	17,526,387
2	PAYROLL TAXES	LABOR	2,762,312	93,637	1,857,994
3	OTHER TAXES	PLANT	227,533	6,551	148,415
4	TOTAL TAXES OTHER THAN INC		29,859,300	873,817	19,532,796
5	TOTAL INCOME TAX EXPENSE		11,091,251	(401,390)	6,746,505
6	INTEREST ON CUSTOMER DEPOSITS	CUSTDEP	35,184	20	2,563
7	TOTAL EXPENSES		174,501,093	5,072,700	115,666,085

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	STATE & FED TAXES & OTHER EXP-16	ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
	TAXES OTHER THAN INCOME								
1	PROPERTY TAX	PLANT	2,200,066	3,038,371	1,346,303	542,660	234,545	1,045,687	161,808
2	PAYROLL TAXES	LABOR	248,291	294,354	107,170	41,957	20,359	85,820	12,729
3	OTHER TAXES	PLANT	18,630	25,729	11,401	4,595	1,986	8,855	1,370
4	TOTAL TAXES OTHER THAN INC		2,466,987	3,358,455	1,464,873	589,213	256,890	1,140,362	175,908
5	TOTAL INCOME TAX EXPENSE		318,940	1,904,807	1,088,213	225,170	205,845	842,059	161,102
6	INTEREST ON CUSTOMER DEPOSITS	CUSTDEP	16,870	11,490	2,626	1,080	69	465	0
7	TOTAL EXPENSES		15,152,771	19,313,781	7,741,085	2,869,981	1,461,837	6,249,006	973,847

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	INCOME TAXES-17	ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
	FEDERAL & STATE TAX CALCULAT				
1	OPERATING REVENUES		214,523,590	4,820,549	140,562,745
	OPERATING EXPENSES				
2	OPERATION & MAINTENANCE EXP		90,352,613	3,364,191	61,230,804
3	DEPRECIATION & AMORTIZATION		43,162,745	1,236,062	28,153,417
4	TAXES OTHER THAN INCOME		29,859,300	873,817	19,532,796
5	INTEREST ON CUSTOMER DEPOSITS		35,184	20	2,563
6	AFUDC ADJUSTMENT	PLANT	0	0	0
7	OPERATING INC BEFORE FED TAX		51,113,749	(653,540)	31,643,165
	LESS:				
8	INTEREST EXPENSE		19,490,373	495,185	12,410,431
9	NET OPERATING INC BEFORE TXS		31,623,376	(1,148,725)	19,232,734
	LESS:				
10	STATE INCOME TAX @ 0.00%		0	0	0
11	FEDERAL TAXABLE BASIS		31,623,376	(1,148,725)	19,232,734
12	FEDERAL INCOME TAX @ 35.00%		11,068,182	(402,054)	6,731,457
13	AFUDC AMORTIZATION	PLANT	23,070	664	15,048
14	ADJUSTMENT	PLANT	0	0	0
12	TOTAL INCOME TAX EXPENSE		11,091,251	(401,390)	6,746,505
13	NET INCOME AFTER TAX		40,022,498	(252,151)	24,896,660

EFFECTIVE STATE TAX RATE	0.00%
FEDERAL TAX RATE - CURRENT	35.00%
1 - INCREMENTAL TAX RATE	0.65000
INCREMENTAL TAX RATE	0.35000
EFFECTIVE INCREMENTAL FEDERAL RATE	0.35000
FACTOR FOR TAXABLE BASIS	1.53846
INTEREST EXPENSE PERCENTAGE	2.5200%
FEDERAL TAX RATE - NET OF UNCOLL	34.27%
1-FEDL TAX RATE - NET OF UNCOLL	63.65%

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	INCOME TAXES-17	ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
	FEDERAL & STATE TAX CALCULAT								
1	OPERATING REVENUES		17,297,423	25,210,191	10,836,062	3,721,909	2,029,390	8,643,430	1,401,891
	OPERATING EXPENSES								
2	OPERATION & MAINTENANCE EXP		8,826,425	9,166,487	3,011,865	1,178,157	621,177	2,578,089	375,418
3	DEPRECIATION & AMORTIZATION		3,523,548	4,872,543	2,173,507	876,361	377,856	1,688,032	261,420
4	TAXES OTHER THAN INCOME		2,466,987	3,358,455	1,464,873	589,213	256,890	1,140,362	175,908
5	INTEREST ON CUSTOMER DEPOSITS		16,870	11,490	2,626	1,080	69	465	0
6	AFUDC ADJUSTMENT	PLANT	0	0	0	0	0	0	0
7	OPERATING INC BEFORE FED TAX		2,463,592	7,801,216	4,183,191	1,077,098	773,399	3,236,483	589,146
	LESS:								
8	INTEREST EXPENSE		1,557,731	2,366,364	1,077,312	435,087	185,845	833,166	129,252
9	NET OPERATING INC BEFORE TXS		905,861	5,434,852	3,105,879	642,011	587,554	2,403,317	459,894
	LESS:								
10	STATE INCOME TAX @ 0.00%		0	0	0	0	0	0	0
11	FEDERAL TAXABLE BASIS		905,861	5,434,852	3,105,879	642,011	587,554	2,403,317	459,894
12	FEDERAL INCOME TAX @ 35.00%		317,051	1,902,198	1,087,058	224,704	205,644	841,161	160,963
13	AFUDC AMORTIZATION	PLANT	1,889	2,609	1,156	466	201	898	139
14	ADJUSTMENT	PLANT	0	0	0	0	0	0	0
12	TOTAL INCOME TAX EXPENSE		318,940	1,904,807	1,088,213	225,170	205,845	842,059	161,102
13	NET INCOME AFTER TAX		2,144,652	5,896,409	3,094,977	851,929	567,553	2,394,424	428,044

EFFECTIVE STATE TAX RATE
FEDERAL TAX RATE - CURRENT
1 - INCREMENTAL TAX RATE
INCREMENTAL TAX RATE
EFFECTIVE INCREMENTAL FEDERAL RATE
FACTOR FOR TAXABLE BASIS
INTEREST EXPENSE PERCENTAGE
FEDERAL TAX RATE - NET OF UNCOLL
1-FEDL TAX RATE - NET OF UNCOLL

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	DEVELOPMENT OF LABOR ALLOC-18	ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
	DEVELOPMENT OF LABOR ALLOCATOR				
1	813-OTH GAS SUPPLY EXP	EXP813	40	1	29
	LOCAL STORAGE LABOR				
2	841-OPERATION LABOR & EXPENSE	DSWNLNG	1,478,658	12,286	1,113,225
3	844-OPER SUPERVISION & ENGINEER	LABSO	0	0	0
4	846-OTHER EXPENSES	EXP846	0	0	0
5	847.1-MAINT SUPERVISION & ENG	LABSO	0	0	0
6	847.2-MAINT STRUCT & INMPROV	EXP8472	0	0	0
7	847.3-MAINT LNG PROCESS TERM EQ	EXP8473	0	0	0
8	847.5-MAINT MEAS/REG EQUIP	EXP8475	0	0	0
9	847.8-MAINT OF VAPORIZING EQ	EXP8478	0	0	0
10	TOTAL STORAGE LABOR		1,478,658	12,286	1,113,225
11	TOTAL PROD & STORAGE LABOR		1,478,698	12,286	1,113,255

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	DEVELOPMENT OF LABOR ALLOC-18	ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
	DEVELOPMENT OF LABOR ALLOCATOR								
1	813-OTH GAS SUPPLY EXP	EXP813	4	5	1	0	0	0	0
	LOCAL STORAGE LABOR								
2	841-OPERATION LABOR & EXPENSE	DSWNLNG	143,775	161,814	38,339	5,337	3,282	600	0
3	844-OPER SUPERVISION & ENGINEER	LABSO	0	0	0	0	0	0	0
4	846-OTHER EXPENSES	EXP846	0	0	0	0	0	0	0
5	847.1-MAINT SUPERVISION & ENG	LABSO	0	0	0	0	0	0	0
6	847.2-MAINT STRUCT & INMPROV	EXP8472	0	0	0	0	0	0	0
7	847.3-MAINT LNG PROCESS TERM EQ	EXP8473	0	0	0	0	0	0	0
8	847.5-MAINT MEAS/REG EQUIP	EXP8475	0	0	0	0	0	0	0
9	847.8-MAINT OF VAPORIZING EQ	EXP8478	0	0	0	0	0	0	0
10	TOTAL STORAGE LABOR		143,775	161,814	38,339	5,337	3,282	600	0
11	TOTAL PROD & STORAGE LABOR		143,778	161,819	38,340	5,337	3,282	600	0

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	DEVEL OF LABOR ALLOC CON'T-19	ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
	TRANSMISSION & DISTRIBUTION LABOR				
	OPERATION				
1	850-OPER SUPER & ENGINEERING	LABDO	5,507	228	3,646
2	861-MAINT SUPER & ENGINEERING	LABDO	63,264	2,621	41,888
3	863-MAINTENANCE OF MAINS	EXP863	164	2	94
4	870-SUPER & ENGINEERING	LABDO	2,193,184	90,872	1,452,128
5	871-SYSTEM CONTROL & DISP	EXP871	668,442	5,904	332,820
6	873-COMP STATION FUEL & POWER	EXP873	0	0	0
7	874-MAINS & SERVICE EXPENSE	EXP874	2,137,375	59,581	1,394,396
8	875-OPER STATION EXP - GENERAL	EXP875	706,089	6,236	351,565
9	876-OPER STATION EXP - INDUST	EXP876	26,653	235	13,271
10	878-METER & HOUSE REG EXP	EXP878	7,654,310	387,921	5,284,293
11	879-CUSTOMER INSTALL EXP	EXP879	336,239	20,176	263,149
12	880-OTHER EXPENSE	EXP880	2,518,297	101,987	1,661,446
13	TOTAL OPERATION LABOR		16,309,524	675,763	10,798,695
	MAINTENANCE				
14	885-SUPERVISION	LABDM	451,676	18,504	312,445
15	887-MAINTENANCE OF MAINS	EXP887	1,555,729	15,694	888,541
16	888-MAINT COMPRESSOR STA EQ	EXP888	0	0	0
17	889-MT OF MEAS & REG STA EQ	EXP889	314,883	2,781	156,782
18	890-MT OF REG EQ (INDUST)	EXP890	46,053	407	22,930
19	891-MT OF REG EQ (CITY GATE)	EXP891	0	0	0
20	892-MAINTENANCE OF SERVICES	EXP892	2,133,757	134,648	1,735,366
21	893-MAINT METER & HOUSE REG	EXP893	1,276,637	64,700	881,350
22	894-MAINT OF OTHER EQUIP	EXP894	0	0	0
23	TOTAL MAINTENANCE LABOR		5,778,736	236,734	3,997,413
24	TOTAL DISTRIB & TRANS LABOR		22,088,260	912,497	14,796,108
	CUSTOMER ACCOUNTS LABOR				
25	901-SUPERVISION	LABCA	262,609	14,593	226,927
26	902-METER READING EXPENSE	EXP902	168,552	9,321	123,811
27	903-CUST RECORDS & COLLECT	EXP903	2,399,744	133,399	2,095,811
28	905-MISC CUSTOMER ACCTS EXP	EXP905	364,703	20,266	314,860
29	TOTAL CUSTOMER ACCTS LABOR		3,195,608	177,579	2,761,408

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	DEVEL OF LABOR ALLOC CON'T-19	ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
	TRANSMISSION & DISTRIBUTION LABOR								
	OPERATION								
1	850-OPER SUPER & ENGINEERING	LABDO	521	635	175	69	42	165	25
2	861-MAINT SUPER & ENGINEERING	LABDO	5,986	7,300	2,008	798	487	1,895	282
3	863-MAINTENANCE OF MAINS	EXP863	12	26	13	5	2	9	1
4	870-SUPER & ENGINEERING	LABDO	207,500	253,069	69,606	27,653	16,894	65,702	9,761
5	871-SYSTEM CONTROL & DISP	EXP871	43,279	90,913	45,710	18,744	20,727	95,445	14,899
6	873-COMP STATION FUEL & POWER	EXP873	0	0	0	0	0	0	0
7	874-MAINS & SERVICE EXPENSE	EXP874	169,770	239,302	114,992	46,912	17,874	81,812	12,737
8	875-OPER STATION EXP - GENERAL	EXP875	45,716	96,034	48,285	19,800	21,894	100,821	15,738
9	876-OPER STATION EXP - INDUST	EXP876	1,726	3,625	1,823	747	826	3,806	594
10	878-METER & HOUSE REG EXP	EXP878	801,249	883,813	148,826	56,556	26,395	58,659	6,599
11	879-CUSTOMER INSTALL EXP	EXP879	31,390	16,083	2,892	1,184	380	887	99
12	880-OTHER EXPENSE	EXP880	235,916	291,137	83,291	33,171	20,109	79,389	11,851
13	TOTAL OPERATION LABOR		1,543,064	1,881,936	517,619	205,639	125,632	488,592	72,584
	MAINTENANCE								
14	885-SUPERVISION	LABDM	39,322	41,784	15,449	6,271	3,023	12,909	1,970
15	887-MAINTENANCE OF MAINS	EXP887	115,587	242,218	122,035	49,631	19,296	88,856	13,870
16	888-MAINT COMPRESSOR STA EQ	EXP888	0	0	0	0	0	0	0
17	889-MT OF MEAS & REG STA EQ	EXP889	20,387	42,827	21,533	8,830	9,764	44,962	7,018
18	890-MT OF REG EQ (INDUST)	EXP890	2,982	6,264	3,149	1,291	1,428	6,576	1,026
19	891-MT OF REG EQ (CITY GATE)	EXP891	0	0	0	0	0	0	0
20	892-MAINTENANCE OF SERVICES	EXP892	191,167	54,087	10,663	4,770	768	2,067	223
21	893-MAINT METER & HOUSE REG	EXP893	133,638	147,408	24,822	9,433	4,402	9,784	1,101
22	894-MAINT OF OTHER EQUIP	EXP894	0	0	0	0	0	0	0
23	TOTAL MAINTENANCE LABOR		503,082	534,587	197,652	80,225	38,681	165,152	25,209
24	TOTAL DISTRIB & TRANS LABOR		2,046,146	2,416,523	715,271	285,865	164,313	653,744	97,793
	CUSTOMER ACCOUNTS LABOR								
25	901-SUPERVISION	LABCA	13,568	5,825	1,205	275	49	150	16
26	902-METER READING EXPENSE	EXP902	13,576	11,939	6,973	1,743	331	772	86
27	903-CUST RECORDS & COLLECT	EXP903	119,056	44,925	4,729	924	149	683	68
28	905-MISC CUSTOMER ACCTS EXP	EXP905	18,908	8,199	1,756	402	73	217	23
29	TOTAL CUSTOMER ACCTS LABOR		165,108	70,889	14,663	3,344	602	1,823	192

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	DEVEL OF LABOR ALLOC CON'T-20	ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
	CUSTOMER SERVICES & INFO EXP				
1	907-CUST SERV & INFO SUPRV	LABSI	7,851	65	872
2	908-CUST ASSISTANCE EXP	EXP908	258,286	2,148	28,685
3	909-INFO & INST ADV EXP & EE	EXP909	290	2	32
4	910-CUST SERVICE MISC EXP	EXP910	193,906	1,613	21,535
5	TOT CUST SERV & INFO LABOR		460,333	3,828	51,124
	SALES EXPENSES				
6	911-SUPERVISION	LABSA	12,572	457	8,338
7	912-DEMO & SELLING EXP	EXP912	420,959	15,289	279,189
8	913-ADVERTISING EXP	EXP913	269	10	178
9	916-MISCELLANEOUS SALES EXP	EXP916	109,890	3,991	72,882
10	TOTAL SALES LABOR		543,690	19,746	360,587
	ADMINISTRATIVE & GENERAL LABOR				
	OPERATION LABOR				
11	920-ADMIN & GENERAL SALARY	EXP920	6,876,264	233,093	4,625,131
12	921-OFFICE SUPPLIES & EXP	EXP921	(8)	(0)	(6)
13	923-OUTSIDE SERV EMPLOYED	EXP923	0	0	0
14	924-PROPERTY INSURANCE	EXP924	0	0	0
15	925-INJURIES & DAMAGES	EXP925	75,863	2,572	51,027
16	926-EMPLOYED PENSION & BENF	EXP926	(371)	(13)	(249)
17	928-REGULATORY COMM EXPENSE	EXP928	1,728	54	1,137
18	929-DUPLICATE CHARGES - CREDIT	EXP929	0	0	0
19	930-MISCELLANEOUS GEN EXP	EXP930	(15,384)	(522)	(10,348)
20	931-RENTS	EXP931	0	0	0
21	TOTAL OPERATION EXPENSE		6,938,093	235,184	4,666,693
	MAINTENANCE				
22	932-MAINT OF GENERAL PLT	EXP932	5,225	171	3,484
23	TOTAL ADMIN & GEN LABOR		6,943,318	235,355	4,670,177
24	TOTAL GAS O & M LABOR		34,709,907	1,361,291	23,752,658
25	CWIP & RWIP DISTRIBUTION LABOR	DISTRPLT	25,424,135	741,332	16,493,587
26	CWIP & RWIP LNG LABOR	LNGPLT	2,508,356	20,841	1,888,445
27	SUM OF ALLOCATED LABOR EXP		62,642,398	2,123,464	42,134,691

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	DEVEL OF LABOR ALLOC CON'T-20	ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
	CUSTOMER SERVICES & INFO EXP								
1	907-CUST SERV & INFO SUPRV	LABSI	5,255	1,444	125	56	9	26	0
2	908-CUST ASSISTANCE EXP	EXP908	172,863	47,497	4,104	1,852	298	839	0
3	909-INFO & INST ADV EXP & EE	EXP909	194	53	5	2	0	1	0
4	910-CUST SERVICE MISC EXP	EXP910	129,775	35,658	3,081	1,390	224	630	0
5	TOT CUST SERV & INFO LABOR		308,087	84,652	7,315	3,301	531	1,495	0
	SALES EXPENSES								
6	911-SUPERVISION	LABSA	840	997	428	212	195	1,105	0
7	912-DEMO & SELLING EXP	EXP912	28,131	33,375	14,345	7,110	6,516	37,004	0
8	913-ADVERTISING EXP	EXP913	18	21	9	5	4	24	0
9	916-MISCELLANEOUS SALES EXP	EXP916	7,343	8,712	3,745	1,856	1,701	9,660	0
10	TOTAL SALES LABOR		36,332	43,105	18,528	9,183	8,416	47,793	0
	ADMINISTRATIVE & GENERAL LABOR								
	OPERATION LABOR								
11	920-ADMIN & GENERAL SALARY	EXP920	618,075	732,740	266,780	104,445	50,679	213,633	31,688
12	921-OFFICE SUPPLIES & EXP	EXP921	(1)	(1)	(0)	(0)	(0)	(0)	(0)
13	923-OUTSIDE SERV EMPLOYED	EXP923	0	0	0	0	0	0	0
14	924-PROPERTY INSURANCE	EXP924	0	0	0	0	0	0	0
15	925-INJURIES & DAMAGES	EXP925	6,819	8,084	2,943	1,152	559	2,357	350
16	926-EMPLOYED PENSION & BENF	EXP926	(33)	(39)	(14)	(6)	(3)	(12)	(2)
17	928-REGULATORY COMM EXPENSE	EXP928	150	192	78	31	14	62	9
18	929-DUPLICATE CHARGES - CREDIT	EXP929	0	0	0	0	0	0	0
19	930-MISCELLANEOUS GEN EXP	EXP930	(1,383)	(1,639)	(597)	(234)	(113)	(478)	(71)
20	931-RENTS	EXP931	0	0	0	0	0	0	0
21	TOTAL OPERATION EXPENSE		623,628	739,336	269,190	105,389	51,136	215,562	31,974
	MAINTENANCE								
22	932-MAINT OF GENERAL PLT	EXP932	459	565	218	87	41	174	26
23	TOTAL ADMIN & GEN LABOR		624,086	739,902	269,408	105,476	51,177	215,736	32,000
24	TOTAL GAS O & M LABOR		3,323,538	3,516,890	1,063,525	412,506	228,321	921,191	129,986
25	CWIP & RWIP DISTRIBUTION LABOR	DISTRPLT	2,063,199	2,883,838	1,301,789	529,931	227,797	1,023,975	158,686
26	CWIP & RWIP LNG LABOR	LNGPLT	243,895	274,498	65,038	9,053	5,568	1,018	0
27	SUM OF ALLOCATED LABOR EXP		5,630,632	6,675,226	2,430,352	951,490	461,686	1,946,185	288,672

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	REVENUE REQUIREMENTS-21	ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
	PRESENT RATES				
1	RATE BASE		773,427,484	19,650,188	492,477,417
2	NET OPER INC (PRESENT RATES)		40,022,498	(252,151)	24,896,660
3	RATE OF RETURN (PRES RATES)		5.17%	-1.28%	5.06%
4	RELATIVE RATE OF RETURN		1.000	-0.248	0.977
5	SALES REVENUE (PRE RATES)		212,434,410	4,776,683	139,501,957
6	ANNUAL BOOKED THERM SALES		414,204,912	3,775,348	191,758,293
7	SALE REV $/THERM (PRE RATES)		$0.5129	$1.2652	$0.7275
	CLAIMED RATE OF RETURN				
8	CLAIMED RATE OF RETURN		7.67%	7.67%	7.67%
9	RETURN REQ FOR CLAIMED ROR		59,321,888	1,507,169	37,773,018
10	SALES REVENUE REQ CLAIMED ROR		242,756,953	7,540,867	159,732,850
11	REVENUE DEFICIENCY SALES REV		30,322,543	2,764,184	20,230,893
12	PERCENT INCREASE REQUIRED		14.27%	57.87%	14.50%
13	ANNUAL BOOKED THERM SALES		414,204,912	3,775,348	191,758,293
14	SALES REV REQUIRED $/THERM		$0.5861	$1.9974	$0.8330
15	REVENUE DEFICIENCY $/THERM		$0.0732	$0.7322	$0.1055

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	REVENUE REQUIREMENTS-21	ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
	PRESENT RATES								
1	RATE BASE		61,814,727	93,903,332	42,750,478	17,265,372	7,374,785	33,062,135	5,129,049
2	NET OPER INC (PRESENT RATES)		2,144,652	5,896,409	3,094,977	851,929	567,553	2,394,424	428,044
3	RATE OF RETURN (PRES RATES)		3.47%	6.28%	7.24%	4.93%	7.70%	7.24%	8.35%
4	RELATIVE RATE OF RETURN		0.670	1.213	1.399	0.954	1.487	1.400	1.613
5	SALES REVENUE (PRE RATES)		17,038,091	24,856,177	10,692,334	3,668,219	1,990,735	8,522,097	1,388,117
6	ANNUAL BOOKED THERM SALES		24,631,759	55,246,850	26,367,153	13,102,776	12,231,334	69,611,089	17,480,311
7	SALE REV $/THERM (PRE RATES)		$0.6917	$0.4499	$0.4055	$0.2800	$0.1628	$0.1224	$0.0794
	CLAIMED RATE OF RETURN								
8	CLAIMED RATE OF RETURN		7.67%	7.67%	7.67%	7.67%	7.67%	7.67%	7.67%
9	RETURN REQ FOR CLAIMED ROR		4,741,190	7,202,386	3,278,962	1,324,254	565,646	2,535,866	393,398
10	SALES REVENUE REQ CLAIMED ROR		21,117,682	26,908,082	10,981,404	4,410,321	1,987,738	8,744,326	1,333,682
11	REVENUE DEFICIENCY SALES REV		4,079,591	2,051,905	289,070	742,102	(2,997)	222,229	(54,435)
12	PERCENT INCREASE REQUIRED		23.94%	8.26%	2.70%	20.23%	-0.15%	2.61%	-3.92%
13	ANNUAL BOOKED THERM SALES		24,631,759	55,246,850	26,367,153	13,102,776	12,231,334	69,611,089	17,480,311
14	SALES REV REQUIRED $/THERM		$0.8573	$0.4871	$0.4165	$0.3366	$0.1625	$0.1256	$0.0763
15	REVENUE DEFICIENCY $/THERM		$0.1656	$0.0371	$0.0110	$0.0566	-$0.0002	$0.0032	-$0.0031

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	ALLOCATION FACTOR TABLE-22	ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
	DEMAND RELATED				
1	STORAGE ALLOCATORS				
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3					
4					
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10	DESIGN WINTER REMAIN DTH NOV-MAR	DSWNLNG	18,480,817	153,549	13,913,501
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18					
	DISTRIBUTION ALLOCATORS				
1	DISTRIBUTION RSUM ALLOCATOR	DISTR	100.0000%	0.8832%	49.7904%
2	DISTR RSUM ALLOC LESS THAN 4"	DISTRL4	100.0000%	1.0925%	61.9966%
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	ALLOCATION FACTOR TABLE-22	ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
	DEMAND RELATED								
	STORAGE ALLOCATORS								
10	DESIGN WINTER REMAIN DTH NOV-MAR	DSWNLNG	1,796,947	2,022,416	479,180	66,700	41,022	7,501	0
	DISTRIBUTION ALLOCATORS								
1	DISTRIBUTION RSUM ALLOCATOR	DISTR	6.4746%	13.6008%	6.8383%	2.8041%	3.1008%	14.2788%	2.2289%
2	DISTR RSUM ALLOC LESS THAN 4"	DISTRL4	8.0665%	16.8818%	8.5149%	3.4476%	0.0000%	0.0000%	0.0000%

NATIONAL GRID - RHODE ISLAND
GAS COST OF SERVICE STUDY
12 MONTHS ENDED AUGUST 31, 2019

	ALLOCATION FACTOR TABLE CONT-23	ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
	COMMODITY RELATED				
1	ANNUAL FIRM THERMS SALES		262,176,128	3,775,348	191,758,293
2	ANNUAL FIRM THERMS SALES & TRANS		414,204,912	3,775,348	191,758,293
3	DIRECT GAS COST ALLOCATOR	EGAS	127,484,535	1,872,064	92,821,450
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	ALLOCATION FACTOR TABLE CONT-23	ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
	COMMODITY RELATED								
1	ANNUAL FIRM THERMS SALES		22,887,169	31,579,424	5,970,565	2,712,395	428,805	761,197	2,302,933
2	ANNUAL FIRM THERMS SALES & TRANS		24,631,759	55,246,850	26,367,153	13,102,776	12,231,334	69,611,089	17,480,311
3	DIRECT GAS COST ALLOCATOR	EGAS	11,128,389	15,661,718	3,083,893	1,126,287	308,071	362,850	1,119,813
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	ALLOCATION FACTOR TABLE CONT-24	ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
	CUSTOMER RELATED				
1	ACCT 380-SERVICES	CUST380	644,430,749	40,666,007	524,109,745
2	ACCT 381-METERS	CUST381	32,369,520	1,640,490	22,346,891
3	ACCT 382-METER INSTALLATION	CUST382	32,369,520	1,640,490	22,346,891
4	ACCT 383-HOUSE REGULATORS	CUST383	32,369,520	1,640,490	22,346,891
5	ACCT 384-HOUSE REGUL INSTALLS	CUST384	32,369,520	1,640,490	22,346,891
6	ACCT 385-IND MEAS & REG STA EQ	CUST385	100.0000%	0.8832%	49.7904%
7	ACCT 386-OTHER PROP CUST PREM	CUST386	100.0000%	0.8832%	49.7904%
8	CUSTOMER DEPOSITS	CUSTDEP	3,346,514	1,856	243,817
9	ACCT 902-METER READ EXP	CUST902	469,357	25,955	344,768
10	ACCT 903-BILLING, POSTAGE & CALLS	CUST903	7,404,183	411,591	6,466,425
11					
12	ACCT 908-CUST ASSISTANCE EXP	CUST908	429,092	3,568	47,654
13	ACCT 912-DEMO & SELLING EXP	CUST912	100.0000%	3.6319%	66.3221%
14					
15					
16					
17	**RATE YEAR**				
18	ANNUAL NO SALES CUST EXCL GAS LGHTS		3,194,503	204,033	2,725,184
19	ANNUAL NO OF TRANS CUSTOMERS		37,998	0	0
20	TOTAL ANNUAL CUST EXCL GAS LIGHTS		3,232,501	204,033	2,725,184
21					
22					
23	**TEST YEAR**				
24	ANNUAL NO SALES CUST EXCL GAS LGHTS		3,146,938	233,047	2,649,817
25	ANNUAL NO OF TRANS CUSTOMERS		34,286	0	0
26	TOTAL ANNUAL CUST EXCL GAS LIGHTS		3,181,224	233,047	2,649,817
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30	ANNUAL NO GAS LIGHT CUSTOMERS		276	276	0
31	NOT INCLUDED ABOVE				
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	ALLOCATION FACTOR TABLE CONT-24	ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE	
	CUSTOMER RELATED									
1	ACCT 380-SERVICES	CUST380	57,735,570	16,335,070	3,220,533	1,440,501	231,805	624,189	67,329	
2	ACCT 381-METERS	CUST381	3,388,424	3,737,580	629,374	239,169	111,623	248,064	27,905	
3	ACCT 382-METER INSTALLATION	CUST382	3,388,424	3,737,580	629,374	239,169	111,623	248,064	27,905	
4	ACCT 383-HOUSE REGULATORS	CUST383	3,388,424	3,737,580	629,374	239,169	111,623	248,064	27,905	
5	ACCT 384-HOUSE REGUL INSTALLS	CUST384	3,388,424	3,737,580	629,374	239,169	111,623	248,064	27,905	
6	ACCT 385-IND MEAS & REG STA EQ	CUST385	6.4746%	13.6008%	6.8383%	2.8041%	3.1008%	14.2788%	2.2289%	
7	ACCT 386-OTHER PROP CUST PREM	CUST386	6.4746%	13.6008%	6.8383%	2.8041%	3.1008%	14.2788%	2.2289%	
8	CUSTOMER DEPOSITS	CUSTDEP	1,604,631	1,092,909	249,765	102,719	6,589	44,228	0	
9	ACCT 902-METER READ EXP	CUST902	37,804	33,247	19,418	4,853	922	2,151	239	
10	ACCT 903-BILLING, POSTAGE & CALLS	CUST903	367,337	138,611	14,591	2,851	459	2,108	208	
11										
12	ACCT 908-CUST ASSISTANCE EXP	CUST908	287,179	78,907	6,819	3,077	495	1,394	0	
13	ACCT 912-DEMO & SELLING EXP	CUST912	6.6825%	7.9283%	3.4078%	1.6891%	1.5479%	8.7905%	0.0000%	
14										
15										
16										
17	**RATE YEAR**									
18	ANNUAL NO SALES CUST EXCL GAS LGHTS		222,923	40,181	1,404	670	48	36	24	95,956
19	ANNUAL NO OF TRANS CUSTOMERS		8,394	22,233	4,069	1,766	360	1,080	96	158,098
20	TOTAL ANNUAL CUST EXCL GAS LIGHTS		231,317	62,414	5,473	2,436	408	1,116	120	145,669
21										
22										
23	**TEST YEAR**									
24	ANNUAL NO SALES CUST EXCL GAS LGHTS		222,998	38,892	1,455	606	60	39	24	
25	ANNUAL NO OF TRANS CUSTOMERS		5,808	21,255	4,053	1,627	375	1,072	96	
26	TOTAL ANNUAL CUST EXCL GAS LIGHTS		228,806	60,147	5,508	2,233	435	1,111	120	
27										
28										
29										
30	ANNUAL NO GAS LIGHT CUSTOMERS		0	0	0	0	0	0	0	
31	NOT INCLUDED ABOVE									
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33										
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ALLOCATION FACTOR TABLE CONT-25

		ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
	EXTERNALLY DEVELOPED UNCOLLECTIBLE ACCOUNTS				
1	RESID NON HTG RATE 10,11 & 80	C904RNH	7,540,867	7,540,867	0
2	RESID HEATING RATE 12 7 13	C904RH	159,732,850	0	159,732,850
3	COMM & IND SMALL RATE 21	C904R21	21,117,682	0	0
4	COMM & IND MEDIUM RATE 22	C904R22	26,908,082	0	0
5	C & I LARGE LOW LOAD FAC RATE 33	C904R33	10,981,404	0	0
6	C & I LARGE HIGH LOAD FAC RATE 23	C904R23	4,410,321	0	0
7	C & I XLARGE LOW LOAD FAC RATE 34	C904R34	1,987,738	0	0
8	C & I XLARGE HIGH LOAD FAC RATE 24	C904R24	8,744,326	0	0
			241,423,270		
	INTERNALLY DEVELOPED LATE PAYMENT CHARGES				
9	COMM & IND SMALL RATE 21	C488R21	21,117,682	0	0
10	COMM & IND MEDIUM RATE 22	C488R22	26,908,082	0	0
11	C & I LARGE LOW LOAD FAC RATE 33	C488R33	10,981,404	0	0
12	C & I LARGE HIGH LOAD FAC RATE 23	C488R23	4,410,321	0	0
13	C & I XLARGE LOW LOAD FAC RATE 34	C488R34	1,987,738	0	0
14	C & I XLARGE HIGH LOAD FAC RATE 24	C488R24	8,744,326	0	0
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	ALLOCATION FACTOR TABLE CONT-25	ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
	EXTERNALLY DEVELOPED UNCOLLECTIBLE ACCOUNTS								
1	RESID NON HTG RATE 10,11 & 80	C904RNH	0	0	0	0	0	0	0
2	RESID HEATING RATE 12 7 13	C904RH	0	0	0	0	0	0	0
3	COMM & IND SMALL RATE 21	C904R21	21,117,682	0	0	0	0	0	0
4	COMM & IND MEDIUM RATE 22	C904R22	0	26,908,082	0	0	0	0	0
5	C & I LARGE LOW LOAD FAC RATE 33	C904R33	0	0	10,981,404	0	0	0	0
6	C & I LARGE HIGH LOAD FAC RATE 23	C904R23	0	0	0	4,410,321	0	0	0
7	C & I XLARGE LOW LOAD FAC RATE 34	C904R34	0	0	0	0	1,987,738	0	0
8	C & I XLARGE HIGH LOAD FAC RATE 24	C904R24	0	0	0	0	0	8,744,326	0
	INTERNALLY DEVELOPED LATE PAYMENT CHARGES								
9	COMM & IND SMALL RATE 21	C488R21	21,117,682	0	0	0	0	0	0
10	COMM & IND MEDIUM RATE 22	C488R22	0	26,908,082	0	0	0	0	0
11	C & I LARGE LOW LOAD FAC RATE 33	C488R33	0	0	10,981,404	0	0	0	0
12	C & I LARGE HIGH LOAD FAC RATE 23	C488R23	0	0	0	4,410,321	0	0	0
13	C & I XLARGE LOW LOAD FAC RATE 34	C488R34	0	0	0	0	1,987,738	0	0
14	C & I XLARGE HIGH LOAD FAC RATE 24	C488R24	0	0	0	0	0	8,744,326	0
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	INTERNALLY DEVELOPED-26	ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
1	TOTAL GAS PLANT IN SERVICE	PLANT	1,318,090,095	37,950,595	859,762,795
2	SUM OF ALLOCATED LABOR EXP	LABOR	62,642,398	2,123,464	42,134,691
3	ACCT 305-STRUCTURES & IMPROVE	PLT305	1,799,946	14,955	1,355,111
4	ACCT 311-LP GAS EQUIP	PLT311	8,613,137	71,563	6,484,502
5	ACCT 320-OTHER EQUIPMENT	PLT320	489,062	4,063	368,196
6	ACCT 375-GAS DIST STATION STR	PLT375	10,212,827	90,200	5,085,012
7	ACCT 376-MAINS	PLT376	701,156,702	7,073,334	400,459,481
8	ACCT 378-GAS MEAS & REG STA EQ	PLT378	32,556,132	287,538	16,209,844
9	ACCT 380-SERVICES	PLT380	354,036,285	22,341,022	287,934,533
10	ACCT 381-METERS	PLT381	63,874,722	3,237,175	44,097,083
11	ACCT 382-METER INSTALLATION	PLT382	49,882,475	2,528,047	34,437,279
12	ACCT 386-OTHER PROP CUST PREM	PLT386	381,896	3,373	190,148
13	ACCT 383-HOUSE REGULATORS	PLT383	937,222	47,498	647,028
14	ACCT 396-POWER OPERATED EQUIP	PLT396	0	0	0
15	ACCT 390-STRUCTURES & IMPROV	PLT390	9,235,574	313,069	6,212,056
16	ACCT 391-OFFICE FURN & EQUIP	PLT391	2,384,968	80,846	1,604,183
17	ACCT 392-TRANSPORTATION EQUIP	PLT392	625,738	21,211	420,885
18	ACCT 393-STORES EQUIPMENT	PLT393	16,876	492	10,948
19	ACCT 394-TOOLS, SHOP & GAR EQ	PLT394	5,344,353	155,834	3,467,082
20	ACCT 395-LABORATORY EQUIPMENT	PLT395	237,430	6,923	154,030
21	ACCT 397-COMMUNICATION EQUIP	PLT397	975,600	33,071	656,211
22	ACCT 398-MISCELLANEOUS EQUIP	PLT398	3,867,999	131,118	2,601,703
23	ACCT 376 MAINS & 380 SERVICES	PLT37680	1,055,192,986	29,414,357	688,394,014
24	TOTAL DISTRIBUTION PLANT	DISTRPLT	1,230,892,438	35,891,095	798,525,969
25	ACCT 381 - 384 METER & HSE REGUL	PLT3814	117,686,588	5,964,364	81,247,090
26	ACCT 871-879 DIST OPER EXP	EXP8719	16,235,629	657,518	10,711,454
27	REV CLAIMED ROR LESS GAS COSTS	REVCLAIM	242,756,953	7,540,867	159,732,850
28	TOTAL GENERAL PLANT	GENPLT	23,143,650	757,993	15,433,216
29	TOTAL WORKING CASH EXPENSE	CWCEXP	127,596,478	3,721,476	85,071,124
30	ACCT 304-LAND & LAND RIGHTS	PLT304	853,973	7,095	642,924
31	ACCT 360-LAND & LAND RIGHTS	PLT360	261,152	2,170	196,611
32	ACCT 374-LAND & LAND RIGHTS	PLT374	925,104	8,171	460,613
33	ACCT 871-880 DIST OPER EXP	EXP8710	23,237,751	941,093	15,331,103
34	TOTAL LNG PLANT	LNGPLT	33,947,044	282,051	25,557,433
35	ACCT 399-OTHER TANGIBLE PROP	PLT399	169,755	5,754	114,181
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12 MONTHS ENDED AUGUST 31, 2019

	INTERNALLY DEVELOPED-26	ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
1	TOTAL GAS PLANT IN SERVICE	PLANT	107,924,962	149,048,323	66,043,322	26,620,375	11,505,665	51,296,513	7,937,545
2	SUM OF ALLOCATED LABOR EXP	LABOR	5,630,632	6,675,226	2,430,352	951,490	461,686	1,946,185	288,672
3	ACCT 305-STRUCTURES & IMPROVE	PLT305	175,014	196,974	46,670	6,496	3,995	731	0
4	ACCT 311-LP GAS EQUIP	PLT311	837,482	942,564	223,326	31,086	19,119	3,496	0
5	ACCT 320-OTHER EQUIPMENT	PLT320	47,553	53,520	12,681	1,765	1,086	199	0
6	ACCT 375-GAS DIST STATION STR	PLT375	661,238	1,389,025	698,388	286,381	316,680	1,458,270	227,633
7	ACCT 376-MAINS	PLT376	52,094,255	109,165,938	55,000,583	22,368,580	8,696,603	40,046,716	6,251,211
8	ACCT 378-GAS MEAS & REG STA EQ	PLT378	2,107,873	4,427,889	2,226,301	912,916	1,009,502	4,648,626	725,641
9	ACCT 380-SERVICES	PLT380	31,718,671	8,974,133	1,769,291	791,380	127,349	342,916	36,989
10	ACCT 381-METERS	PLT381	6,686,372	7,375,361	1,241,942	471,952	220,266	489,505	55,065
11	ACCT 382-METER INSTALLATION	PLT382	5,221,671	5,759,731	969,885	368,567	172,015	382,275	43,002
12	ACCT 386-OTHER PROP CUST PREM	PLT386	24,726	51,941	26,115	10,709	11,842	54,530	8,512
13	ACCT 383-HOUSE REGULATORS	PLT383	98,108	108,217	18,223	6,925	3,232	7,182	808
14	ACCT 396-POWER OPERATED EQUIP	PLT396	0	0	0	0	0	0	0
15	ACCT 390-STRUCTURES & IMPROV	PLT390	830,143	984,150	358,315	140,281	68,068	286,932	42,560
16	ACCT 391-OFFICE FURN & EQUIP	PLT391	214,374	254,144	92,530	36,226	17,578	74,097	10,991
17	ACCT 392-TRANSPORTATION EQUIP	PLT392	56,245	66,679	24,277	9,504	4,612	19,441	2,884
18	ACCT 393-STORES EQUIPMENT	PLT393	1,370	1,914	864	352	151	680	105
19	ACCT 394-TOOLS, SHOP & GAR EQ	PLT394	433,701	606,205	273,646	111,396	47,885	215,248	33,357
20	ACCT 395-LABORATORY EQUIPMENT	PLT395	19,268	26,932	12,157	4,949	2,127	9,563	1,482
21	ACCT 397-COMMUNICATION EQUIP	PLT397	87,692	103,961	37,851	14,819	7,190	30,310	4,496
22	ACCT 398-MISCELLANEOUS EQUIP	PLT398	347,676	412,177	150,068	58,752	28,508	120,172	17,825
23	ACCT 376 MAINS & 380 SERVICES	PLT37680	83,812,926	118,140,072	56,769,874	23,159,960	8,823,952	40,389,633	6,288,200
24	TOTAL DISTRIBUTION PLANT	DISTRPLT	99,888,386	139,619,080	63,025,222	25,656,269	11,028,649	49,575,069	7,682,699
25	ACCT 381 - 384 METER & HSE REGUL	PLT3814	12,319,370	13,588,803	2,288,228	869,553	405,831	901,893	101,455
26	ACCT 871-879 DIST OPER EXP	EXP8719	1,520,968	1,876,978	536,979	213,857	129,645	511,828	76,402
27	REV CLAIMED ROR LESS GAS COSTS	REVCLAIM	21,117,682	26,908,082	10,981,404	4,410,321	1,987,738	8,744,326	1,333,682
28	TOTAL GENERAL PLANT	GENPLT	2,031,375	2,504,660	967,365	383,191	179,473	770,581	115,796
29	TOTAL WORKING CASH EXPENSE	CWCEXP	11,289,904	14,018,886	5,397,275	1,925,198	1,053,561	4,426,991	692,063
30	ACCT 304-LAND & LAND RIGHTS	PLT304	83,034	93,453	22,142	3,082	1,896	347	0
31	ACCT 360-LAND & LAND RIGHTS	PLT360	25,393	28,579	6,771	943	580	106	0
32	ACCT 374-LAND & LAND RIGHTS	PLT374	59,897	125,821	63,262	25,941	28,686	132,094	20,620
33	ACCT 871-880 DIST OPER EXP	EXP8710	2,176,933	2,686,484	768,569	306,090	185,558	732,569	109,353
34	TOTAL LNG PLANT	LNGPLT	3,300,777	3,714,936	880,197	122,519	75,352	13,779	0
35	ACCT 399-OTHER TANGIBLE PROP	PLT399	15,258	18,089	6,586	2,578	1,251	5,274	782
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	INTERNALLY DEVELOPED CONT-27	ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
1	ACCT 813-OTH GAS SUPPLY EXP	EXP813	3,158	46	2,299
2	ACCT 846-OTHER EXPENSES	EXP846	0	0	0
3	ACCT 847.2-MAINT STRUCT & INMPROV	EXP8472	0	0	0
4	ACCT 847.3-MAINT LNG PROCESS TERM I	EXP8473	0	0	0
5	ACCT 847.5-MAINT MEAS/REG EQUIP	EXP8475	0	0	0
6	ACCT 847.8-MAINT OF VAPORIZING EQ	EXP8478	0	0	0
7	ACCT 871-SYSTEM CONTROL & DISP	EXP871	1,142,477	10,090	568,844
8	ACCT 873-COMP STA FUEL & POW	EXP873	18,026	159	8,975
9	ACCT 874-MAINS & SERVICE EXP	EXP874	3,636,604	101,373	2,372,472
10	ACCT 875-OPER STATION EXP - GEN	EXP875	864,849	7,638	430,612
11	ACCT 878-METER & HOUSE REG EXP	EXP878	10,138,564	513,823	6,999,343
12	ACCT 879-CUSTOMER INSTALL EXP	EXP879	402,373	24,144	314,906
13	ACCT 880-OTHER EXPENSE	EXP880	7,002,123	283,575	4,619,649
14	ACCT 887-MAINTENANCE OF MAINS	EXP887	2,553,396	25,759	1,458,350
15	ACCT 889-MT OF M & R STA EQ	EXP889	714,998	6,315	356,001
16	ACCT 890-MT OF REG EQ (INDUST)	EXP890	534,945	4,725	266,351
17	ACCT 891-MT OF REG EQ (CITY GATE)	EXP891	0	0	0
18	ACCT 892-MAINTENANCE OF SERV	EXP892	4,164,710	262,809	3,387,121
19	ACCT 893-MAINT MET & HOUSE REG	EXP893	1,666,411	84,454	1,150,437
20	ACCT 902-METER READING EXP	EXP902	526,656	29,124	386,857
21	ACCT 903-CUST RECORDS & COLL	EXP903	6,772,099	376,454	5,914,396
22	ACCT 908-CUST ASSISTANCE EXP	EXP908	356,148	2,962	39,553
23	ACCT 904-UNCOLLECTIBLE ACCTS	EXP904	3,706,686	115,142	2,438,981
24	ACCT 904-UNCOLL ACCTS EXP BASE	EXP904B	3,706,686	115,142	2,438,981
25	ACCT 920-ADMIN & GEN SALARY	EXP920	7,504,451	254,387	5,047,663
26	ACCT 923-OUTSIDE SERV EMPLOYED	EXP923	1,962,066	66,510	1,319,730
27	ACCT 930-MISC GEN EXP	EXP930	887,223	30,075	596,766
28	ACCT 932-MAINT OF GENERAL PLT	EXP932	8,615	282	5,745
29	ACCT 863-MAINTENANCE OF MAINS	EXP863	164	2	93
30	STORAGE LABOR ACCTS 846-847	LABSO	0	0	0
31	DIST LAB OPER ACCT 861 & 871 - 880	LABDO	14,047,569	582,042	9,301,033
32	DIST LABOR MAINT ACCT 886 - 894	LABDM	5,327,060	218,230	3,684,968
33	CUST ACCTS LAB ACCT 902,903 & 905	LABCA	2,932,999	162,986	2,534,481
34	SALES LABOR ACCT 912 - 916	LABSA	531,118	19,290	352,249
35	CUST SERV & INFO LABOR 908-910	LABSI	452,482	3,763	50,252
36	TOTAL STORAGE LABOR	TLABSO	1,478,658	12,286	1,113,225
37	TOTAL DISTR OPER LABOR	TLABDO	16,309,524	675,763	10,798,695
38	TOTAL DISTR MAINT LABOR	TLABDM	5,778,736	236,734	3,997,413
39	TOTAL SALES LABOR	TLABSA	543,690	19,746	360,587
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	INTERNALLY DEVELOPED CONT-27	ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
1	ACCT 813-OTH GAS SUPPLY EXP	EXP813	276	388	76	28	8	9	28
2	ACCT 846-OTHER EXPENSES	EXP846	0	0	0	0	0	0	0
3	ACCT 847.2-MAINT STRUCT & INMPROV	EXP8472	0	0	0	0	0	0	0
4	ACCT 847.3-MAINT LNG PROCESS TERM I	EXP8473	0	0	0	0	0	0	0
5	ACCT 847.5-MAINT MEAS/REG EQUIP	EXP8475	0	0	0	0	0	0	0
6	ACCT 847.8-MAINT OF VAPORIZING EQ	EXP8478	0	0	0	0	0	0	0
7	ACCT 871-SYSTEM CONTROL & DISP	EXP871	73,971	155,386	78,127	32,037	35,426	163,132	25,465
8	ACCT 873-COMP STA FUEL & POW	EXP873	1,167	2,452	1,233	505	559	2,574	402
9	ACCT 874-MAINS & SERVICE EXP	EXP874	288,852	407,156	195,651	79,818	30,411	139,198	21,672
10	ACCT 875-OPER STATION EXP - GEN	EXP875	55,995	117,626	59,141	24,252	26,817	123,490	19,277
11	ACCT 878-METER & HOUSE REG EXP	EXP878	1,061,300	1,170,660	197,128	74,911	34,962	77,697	8,740
12	ACCT 879-CUSTOMER INSTALL EXP	EXP879	37,564	19,246	3,461	1,417	455	1,062	118
13	ACCT 880-OTHER EXPENSE	EXP880	655,965	809,506	231,589	92,233	55,913	220,742	32,951
14	ACCT 887-MAINTENANCE OF MAINS	EXP887	189,711	397,549	200,295	81,459	31,670	145,838	22,765
15	ACCT 889-MT OF M & R STA EQ	EXP889	46,293	97,245	48,894	20,049	22,171	102,093	15,937
16	ACCT 890-MT OF REG EQ (INDUST)	EXP890	34,635	72,757	36,581	15,001	16,588	76,384	11,923
17	ACCT 891-MT OF REG EQ (CITY GATE)	EXP891	0	0	0	0	0	0	0
18	ACCT 892-MAINTENANCE OF SERV	EXP892	373,123	105,567	20,813	9,309	1,498	4,034	435
19	ACCT 893-MAINT MET & HOUSE REG	EXP893	174,439	192,414	32,401	12,313	5,746	12,771	1,437
20	ACCT 902-METER READING EXP	EXP902	42,419	37,306	21,788	5,446	1,035	2,414	268
21	ACCT 903-CUST RECORDS & COLL	EXP903	335,978	126,778	13,346	2,608	420	1,928	191
22	ACCT 908-CUST ASSISTANCE EXP	EXP908	238,359	65,493	5,659	2,554	411	1,157	0
23	ACCT 904-UNCOLLECTIBLE ACCTS	EXP904	322,449	410,863	167,676	67,342	30,351	133,518	20,364
24	ACCT 904-UNCOLL ACCTS EXP BASE	EXP904B	322,449	410,863	167,676	67,342	30,351	133,518	20,364
25	ACCT 920-ADMIN & GEN SALARY	EXP920	674,540	799,681	291,152	113,987	55,309	233,150	34,582
26	ACCT 923-OUTSIDE SERV EMPLOYED	EXP923	176,361	209,079	76,123	29,802	14,461	60,958	9,042
27	ACCT 930-MISC GEN EXP	EXP930	79,748	94,543	34,422	13,476	6,539	27,564	4,089
28	ACCT 932-MAINT OF GENERAL PLT	EXP932	756	932	360	143	67	287	43
29	ACCT 863-MAINTENANCE OF MAINS	EXP863	12	25	13	5	2	9	1
30	STORAGE LABOR ACCTS 846-847	LABSO	0	0	0	0	0	0	0
31	DIST LAB OPER ACCT 861 & 871 - 880	LABDO	1,329,058	1,620,932	445,831	177,119	108,208	420,830	62,518
32	DIST LABOR MAINT ACCT 886 - 894	LABDM	463,760	492,803	182,203	73,955	35,658	152,243	23,239
33	CUST ACCTS LAB ACCT 902,903 & 905	LABCA	151,540	65,063	13,458	3,069	553	1,673	176
34	SALES LABOR ACCT 912 - 916	LABSA	35,492	42,109	18,099	8,971	8,221	46,688	0
35	CUST SERV & INFO LABOR 908-910	LABSI	302,833	83,209	7,190	3,244	522	1,470	0
36	TOTAL STORAGE LABOR	TLABSO	143,775	161,814	38,339	5,337	3,282	600	0
37	TOTAL DISTR OPER LABOR	TLABDO	1,543,064	1,881,936	517,619	205,639	125,632	488,592	72,584
38	TOTAL DISTR MAINT LABOR	TLABDM	503,082	534,587	197,652	80,225	38,681	165,152	25,209
39	TOTAL SALES LABOR	TLABSA	36,332	43,105	18,528	9,183	8,416	47,793	0
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	INTERNALLY DEVELOPED CONT-28	ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
1	TOTAL CUST ACCTS LABOR	TLABCA	3,195,608	177,579	2,761,408
2	CUSTOMER SERVICE & INFO LABOR	TLABSE	460,333	3,828	51,124
3	ACCT 888-MNT COMPRESSOR STA EQ	EXP888	63,717	563	31,725
4	ACCT 894-MAINT OF OTHER EQUIP	EXP894	(11,829)	(104)	(5,890)
5	ACCT 921-OFFICE SUPPLIES & EXP	EXP921	5,051,069	171,222	3,397,463
6	ACCT 926-EMPLOY PENSION & BENF	EXP926	8,844,805	299,823	5,949,215
7	ACCT 380-384-SERV,METRS & REGUL	PLT3804	471,722,872	28,305,387	369,181,623
8	ACCT 925-INJURIES & DAMAGES	EXP925	1,365,329	46,282	918,351
9	ACCT 302-GAS FRANCHISES & CON	PLT302	213,499	6,147	139,261
10	ACCT 303-MISC INTANGIBLE PLT	PLT303	5,085	146	3,317
11	ACCT 303-MISC INTANG PLT - SOFT	PLT303SL	29,888,379	1,013,162	20,103,599
12	ACCT 307-OTHER POWER EQUIP	PLT307	46,159	384	34,751
13	ACCT 361-STRUCTURES & IMPROV	PLT361	3,385,050	28,125	2,548,475
14	ACCT 362-GAS HOLDERS & LNG EQ	PLT362	4,605,653	38,266	3,467,420
15	ACCT 363-PURIFICATION EQUIP	PLT363	13,892,912	115,430	10,459,443
16	ACCT 377-DIST COMP STATION EQ	PLT377	248,716	2,197	123,837
17	ACCT 379-DIST MEAS & REG GS EQ	PLT379	12,106,307	106,924	6,027,785
18	ACCT 384-HOUSE REGUL INSTALLS	PLT384	2,992,169	151,643	2,065,698
19	ACCT 385-IND MEAS & REG STA EQ	PLT385	796,108	7,031	396,386
20	ACCT 387-DIST OTHER EQUIP	PLT387	785,775	6,940	391,241
21	ACCT 389-LAND & LAND RIGHTS	PLT389	285,357	9,673	191,938
22	ACCT 378 & 379-GAS M & R STAT EQ	PLT3789	44,662,439	394,462	22,237,629
23	CUSTOMER ACCTS EXP 902 - 903	EXP9023	7,298,755	405,578	6,301,254
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25	ACCT 876-OPER STAT EXP - INDUST	EXP876	32,737	289	16,300
26	ACCT 905-MISC CUST ACCTS EXP	EXP905	425,983	23,671	367,765
27	ACCT 910-CUST SERVICE MISC EXP	EXP910	451,125	3,752	50,101
28	ACCT 912-DEMO & SELLING EXP	EXP912	482,809	17,535	320,209
29	ACCT 916-MISC SALES EXP	EXP916	158,725	5,765	105,270
30	ACCT 924-PROPERTY INSURANCE	EXP924	308,610	8,886	201,300
31	ACCT 928-REGULATORY COMM EXP	EXP928	1,910,440	59,345	1,257,060
32	ACCT 929-DUPLICATE CHRG - CREDIT	EXP929	0	0	0
33	ACCT 931-RENTS	EXP931	9,647,448	327,031	6,489,092
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36	ACCT 909-INFO & INST ADV EXP & EE	EXP909	856,630	7,124	95,135
37	ACCT 913-ADVERTISING EXP	EXP913	52,547	1,908	34,850
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	INTERNALLY DEVELOPED CONT-28	ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
1	TOTAL CUST ACCTS LABOR	TLABCA	165,108	70,889	14,663	3,344	602	1,823	192
2	CUSTOMER SERVICE & INFO LABOR	TLABSE	308,087	84,652	7,315	3,301	531	1,495	0
3	ACCT 888-MNT COMPRESSOR STA EQ	EXP888	4,125	8,666	4,357	1,787	1,976	9,098	1,420
4	ACCT 894-MAINT OF OTHER EQUIP	EXP894	(766)	(1,609)	(809)	(332)	(367)	(1,689)	(264)
5	ACCT 921-OFFICE SUPPLIES & EXP	EXP921	454,017	538,246	195,968	76,722	37,227	156,927	23,277
6	ACCT 926-EMPLOY PENSION & BENF	EXP926	795,018	942,510	343,154	134,346	65,188	274,792	40,759
7	ACCT 380-384-SERV,METRS & REGUL	PLT3804	44,038,041	22,562,937	4,057,519	1,660,933	533,180	1,244,810	138,444
8	ACCT 925-INJURIES & DAMAGES	EXP925	122,723	145,491	52,971	20,738	10,063	42,418	6,292
9	ACCT 302-GAS FRANCHISES & CON	PLT302	17,481	24,142	10,697	4,312	1,864	8,309	1,286
10	ACCT 303-MISC INTANGIBLE PLT	PLT303	416	575	255	103	44	198	31
11	ACCT 303-MISC INTANG PLT - SOFT	PLT303SL	2,686,527	3,184,931	1,159,586	453,982	220,283	928,577	137,733
12	ACCT 307-OTHER POWER EQUIP	PLT307	4,488	5,051	1,197	167	102	19	0
13	ACCT 361-STRUCTURES & IMPROV	PLT361	329,139	370,437	87,769	12,217	7,514	1,374	0
14	ACCT 362-GAS HOLDERS & LNG EQ	PLT362	447,822	504,012	119,418	16,622	10,223	1,869	0
15	ACCT 363-PURIFICATION EQUIP	PLT363	1,350,851	1,520,347	360,223	50,141	30,838	5,639	0
16	ACCT 377-DIST COMP STATION EQ	PLT377	16,103	33,827	17,008	6,974	7,712	35,514	5,544
17	ACCT 379-DIST MEAS & REG GS EQ	PLT379	783,833	1,646,553	827,871	339,477	375,393	1,728,636	269,837
18	ACCT 384-HOUSE REGUL INSTALLS	PLT384	313,219	345,494	58,178	22,108	10,318	22,931	2,579
19	ACCT 385-IND MEAS & REG STA EQ	PLT385	51,545	108,277	54,441	22,324	24,686	113,675	17,744
20	ACCT 387-DIST OTHER EQUIP	PLT387	50,876	106,872	53,734	22,034	24,365	112,199	17,514
21	ACCT 389-LAND & LAND RIGHTS	PLT389	25,649	30,408	11,071	4,334	2,103	8,866	1,315
22	ACCT 378 & 379-GAS M & R STAT EQ	PLT3789	2,891,706	6,074,442	3,054,172	1,252,393	1,384,896	6,377,262	995,478
23	CUSTOMER ACCTS EXP 902 - 903	EXP9023	378,397	164,084	35,134	8,054	1,454	4,342	459
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25	ACCT 876-OPER STAT EXP - INDUST	EXP876	2,120	4,452	2,239	918	1,015	4,674	730
26	ACCT 905-MISC CUST ACCTS EXP	EXP905	22,085	9,577	2,051	470	85	253	27
27	ACCT 910-CUST SERVICE MISC EXP	EXP910	301,924	82,959	7,169	3,235	521	1,465	0
28	ACCT 912-DEMO & SELLING EXP	EXP912	32,264	38,279	16,453	8,155	7,473	42,441	0
29	ACCT 916-MISC SALES EXP	EXP916	10,607	12,584	5,409	2,681	2,457	13,953	0
30	ACCT 924-PROPERTY INSURANCE	EXP924	25,269	34,897	15,463	6,233	2,694	12,010	1,858
31	ACCT 928-REGULATORY COMM EXP	EXP928	166,191	211,760	86,421	34,708	15,643	68,816	10,496
32	ACCT 929-DUPLICATE CHRG - CREDIT	EXP929	0	0	0	0	0	0	0
33	ACCT 931-RENTS	EXP931	867,164	1,028,040	374,294	146,537	71,103	299,729	44,458
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35									
36	ACCT 909-INFO & INST ADV EXP & EE	EXP909	573,316	157,529	13,612	6,142	988	2,782	0
37	ACCT 913-ADVERTISING EXP	EXP913	3,511	4,166	1,791	888	813	4,619	0
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GAS COST OF SERVICE STUDY
12 MONTHS ENDED AUGUST 31, 2019

		ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
	INTERNALLY DEVELOPED CONT-29				
	REVENUES FROM GAS SALES				
1	REVENUES FIRM SALES OF GAS		212,434,410	4,776,683	139,501,957
2	BASE REVENUE SALES		148,577,330	4,300,592	116,445,197
3	BASE REVENUE TRANSPORTATION		26,234,359	0	0
4	RDM ADJUSTMENT		-2,584,650	-35,430	-1,799,586
5	ISR ADJUSTMENT		38,889,954	490,257	24,901,225
6	GAS LIGHTS		22,148	22,148	0
7	NORMALIZE ERC		-92,848	-884	-44,878
8	INTERRUPTIBLE MARGINS		1,388,117	0	0
9					
10					
11					
12	DELIVERY RATE TOTAL		174,740,989	4,321,856	116,400,319
	REVENUE REQUIREMENT INPUTS				
1	CLAIMED RATE OF RETURN		7.670%	7.670%	7.670%
2	ANNUAL THERM SALES & TRANS		414,204,912	3,775,348	191,758,293
3	PROPOSED SALES REVENUES		242,756,953	7,540,867	159,732,850
4	TOTAL ANNUAL CUST EX LIGHTS		3,232,501	204,033	2,725,184
5					

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GAS COST OF SERVICE STUDY
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	INTERNALLY DEVELOPED CONT-29	ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
	REVENUES FROM GAS SALES								
1	REVENUES FIRM SALES OF GAS		17,038,091	24,856,177	10,692,334	3,668,219	1,990,735	8,522,097	1,388,117
2	BASE REVENUE SALES		13,269,474	11,838,279	1,976,132	500,527	91,096	156,033	
3	BASE REVENUE TRANSPORTATION		821,713	8,265,368	6,374,659	2,255,781	1,603,925	6,912,913	
4	RDM ADJUSTMENT		-231,161	-518,473	0	0	0	0	
5	ISR ADJUSTMENT		3,183,829	5,283,933	2,347,713	914,978	298,576	1,469,443	
6	GAS LIGHTS		0	0	0	0	0	0	
7	NORMALIZE ERC		-5,765	-12,930	-6,171	-3,067	-2,863	-16,292	0
8	INTERRUPTIBLE MARGINS		0	0	0	0	0	0	1,388,117
9									
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12	DELIVERY RATE TOTAL		14,085,422	20,090,717	8,344,620	2,753,241	1,692,158	7,052,654	0
	REVENUE REQUIREMENT INPUTS								
1	CLAIMED RATE OF RETURN		7.670%	7.670%	7.670%	7.670%	7.670%	7.670%	7.670%
2	ANNUAL THERM SALES & TRANS		24,631,759	55,246,850	26,367,153	13,102,776	12,231,334	69,611,089	17,480,311
3	PROPOSED SALES REVENUES		21,117,682	26,908,082	10,981,404	4,410,321	1,987,738	8,744,326	1,333,682
4	TOTAL ANNUAL CUST EX LIGHTS		231,317	62,414	5,473	2,436	408	1,116	120
5									

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	RATIO TABLE-30	ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
	CAPACITY RELATED				
1	STORAGE ALLOCATORS				
2					
3					
4					
5					
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10	DESIGN WINTER REMAIN DTH NOV-MAR	DSWNLNG	1.00000	0.00831	0.75286
11					
12					
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16					
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18					
	DISTRIBUTION ALLOCATORS				
1	DISTRIBUTION RSUM ALLOCATOR	DISTR	1.00000	0.00883	0.49790
2	DISTR RSUM ALLOC LESS THAN 4"	DISTRL4	1.00000	0.01093	0.61997
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	RATIO TABLE-30	ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
	CAPACITY RELATED								
1	STORAGE ALLOCATORS								
2									
3									
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9									
10	DESIGN WINTER REMAIN DTH NOV-MAR	DSWNLNG	0.09723	0.10943	0.02593	0.00361	0.00222	0.00041	0.00000
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	DISTRIBUTION ALLOCATORS								
1	DISTRIBUTION RSUM ALLOCATOR	DISTR	0.06475	0.13601	0.06838	0.02804	0.03101	0.14279	0.02229
2	DISTR RSUM ALLOC LESS THAN 4"	DISTRL4	0.08067	0.16882	0.08515	0.03448	0.00000	0.00000	0.00000
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	RATIO TABLE CONT-31	ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
	COMMODITY RELATED				
1	ANNUAL FIRM THERMS SALES		1.00000	0.01440	0.73141
2	ANNUAL FIRM THERMS SALES & TRANS		1.00000	0.00911	0.46296
3	DIRECT GAS COST ALLOCATOR	EGAS	1.00000	0.01468	0.72810
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	RATIO TABLE CONT-31	ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
	COMMODITY RELATED								
1	ANNUAL FIRM THERMS SALES		0.08730	0.12045	0.02277	0.01035	0.00164	0.00290	0.00878
2	ANNUAL FIRM THERMS SALES & TRANS		0.05947	0.13338	0.06366	0.03163	0.02953	0.16806	0.04220
3	DIRECT GAS COST ALLOCATOR	EGAS	0.08729	0.12285	0.02419	0.00883	0.00242	0.00285	0.00878
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RATIO TABLE CONT-32

CUSTOMER RELATED

		ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
1	ACCT 380-SERVICES	CUST380	1.00000	0.06310	0.81329
2	ACCT 381-METERS	CUST381	1.00000	0.05068	0.69037
3	ACCT 382-METER INSTALLATION	CUST382	1.00000	0.05068	0.69037
4	ACCT 383-HOUSE REGULATORS	CUST383	1.00000	0.05068	0.69037
5	ACCT 384-HOUSE REGUL INSTALLS	CUST384	1.00000	0.05068	0.69037
6	ACCT 385-IND MEAS & REG STA EQ	CUST385	1.00000	0.00883	0.49790
7	ACCT 386-OTHER PROP CUST PREM	CUST386	1.00000	0.00883	0.49790
8	CUSTOMER DEPOSITS	CUSTDEP	1.00000	0.00055	0.07286
9	ACCT 902-METER READ EXP	CUST902	1.00000	0.05530	0.73455
10	ACCT 903-BILLING, POSTAGE & CALLS	CUST903	1.00000	0.05559	0.87335
11					
12	ACCT 908-CUST ASSISTANCE EXP	CUST908	1.00000	0.00832	0.11106
13	ACCT 912-DEMO & SELLING EXP	CUST912	1.00000	0.03632	0.66322
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	RATIO TABLE CONT-32	ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
	CUSTOMER RELATED								
1	ACCT 380-SERVICES	CUST380	0.08959	0.02535	0.00500	0.00224	0.00036	0.00097	0.00010
2	ACCT 381-METERS	CUST381	0.10468	0.11547	0.01944	0.00739	0.00345	0.00766	0.00086
3	ACCT 382-METER INSTALLATION	CUST382	0.10468	0.11547	0.01944	0.00739	0.00345	0.00766	0.00086
4	ACCT 383-HOUSE REGULATORS	CUST383	0.10468	0.11547	0.01944	0.00739	0.00345	0.00766	0.00086
5	ACCT 384-HOUSE REGUL INSTALLS	CUST384	0.10468	0.11547	0.01944	0.00739	0.00345	0.00766	0.00086
6	ACCT 385-IND MEAS & REG STA EQ	CUST385	0.06475	0.13601	0.06838	0.02804	0.03101	0.14279	0.02229
7	ACCT 386-OTHER PROP CUST PREM	CUST386	0.06475	0.13601	0.06838	0.02804	0.03101	0.14279	0.02229
8	CUSTOMER DEPOSITS	CUSTDEP	0.47949	0.32658	0.07463	0.03069	0.00197	0.01322	0.00000
9	ACCT 902-METER READ EXP	CUST902	0.08054	0.07084	0.04137	0.01034	0.00196	0.00458	0.00051
10	ACCT 903-BILLING, POSTAGE & CALLS	CUST903	0.04961	0.01872	0.00197	0.00039	0.00006	0.00028	0.00003
11									
12	ACCT 908-CUST ASSISTANCE EXP	CUST908	0.66927	0.18389	0.01589	0.00717	0.00115	0.00325	0.00000
13	ACCT 912-DEMO & SELLING EXP	CUST912	0.06683	0.07928	0.03408	0.01689	0.01548	0.08790	0.00000
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	RATIO TABLE CONT-33	ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
	EXTERNALLY DEVELOPED UNCOLLECTIBLE ACCOUNTS				
1	RESID NON HTG RATE 10,11 & 80	C904RNH	1.00000	1.00000	0.00000
2	RESID HEATING RATE 12 7 13	C904RH	1.00000	0.00000	1.00000
3	COMM & IND SMALL RATE 21	C904R21	1.00000	0.00000	0.00000
4	COMM & IND MEDIUM RATE 22	C904R22	1.00000	0.00000	0.00000
5	C & I LARGE LOW LOAD FAC RATE 33	C904R33	1.00000	0.00000	0.00000
6	C & I LARGE HIGH LOAD FAC RATE 23	C904R23	1.00000	0.00000	0.00000
7	C & I XLARGE LOW LOAD FAC RATE 34	C904R34	1.00000	0.00000	0.00000
8	C & I XLARGE HIGH LOAD FAC RATE 24	C904R24	1.00000	0.00000	0.00000
	INTERNALLY DEVELOPED LATE PAYMENT CHARGES				
9	COMM & IND SMALL RATE 21	C488R21	1.00000	0.00000	0.00000
10	COMM & IND MEDIUM RATE 22	C488R22	1.00000	0.00000	0.00000
11	C & I LARGE LOW LOAD FAC RATE 33	C488R33	1.00000	0.00000	0.00000
12	C & I LARGE HIGH LOAD FAC RATE 23	C488R23	1.00000	0.00000	0.00000
13	C & I XLARGE LOW LOAD FAC RATE 34	C488R34	1.00000	0.00000	0.00000
14	C & I XLARGE HIGH LOAD FAC RATE 24	C488R24	1.00000	0.00000	0.00000
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	RATIO TABLE CONT-33	ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
	EXTERNALLY DEVELOPED UNCOLLECTIBLE ACCOUNTS								
1	RESID NON HTG RATE 10,11 & 80	C904RNH	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2	RESID HEATING RATE 12 7 13	C904RH	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
3	COMM & IND SMALL RATE 21	C904R21	1.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
4	COMM & IND MEDIUM RATE 22	C904R22	0.00000	1.00000	0.00000	0.00000	0.00000	0.00000	0.00000
5	C & I LARGE LOW LOAD FAC RATE 33	C904R33	0.00000	0.00000	1.00000	0.00000	0.00000	0.00000	0.00000
6	C & I LARGE HIGH LOAD FAC RATE 23	C904R23	0.00000	0.00000	0.00000	1.00000	0.00000	0.00000	0.00000
7	C & I XLARGE LOW LOAD FAC RATE 34	C904R34	0.00000	0.00000	0.00000	0.00000	1.00000	0.00000	0.00000
8	C & I XLARGE HIGH LOAD FAC RATE 24	C904R24	0.00000	0.00000	0.00000	0.00000	0.00000	1.00000	0.00000
	INTERNALLY DEVELOPED LATE PAYMENT CHARGES								
9	COMM & IND SMALL RATE 21	C488R21	1.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
10	COMM & IND MEDIUM RATE 22	C488R22	0.00000	1.00000	0.00000	0.00000	0.00000	0.00000	0.00000
11	C & I LARGE LOW LOAD FAC RATE 33	C488R33	0.00000	0.00000	1.00000	0.00000	0.00000	0.00000	0.00000
12	C & I LARGE HIGH LOAD FAC RATE 23	C488R23	0.00000	0.00000	0.00000	1.00000	0.00000	0.00000	0.00000
13	C & I XLARGE LOW LOAD FAC RATE 34	C488R34	0.00000	0.00000	0.00000	0.00000	1.00000	0.00000	0.00000
14	C & I XLARGE HIGH LOAD FAC RATE 24	C488R24	0.00000	0.00000	0.00000	0.00000	0.00000	1.00000	0.00000
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	INTERNALLY DEVELOPED-34	ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
1	TOTAL GAS PLANT IN SERVICE	PLANT	1.00000	0.02879	0.65228
2	SUM OF ALLOCATED LABOR EXP	LABOR	1.00000	0.03390	0.67262
3	ACCT 305-STRUCTURES & IMPROVE	PLT305	1.00000	0.00831	0.75286
4	ACCT 311-LP GAS EQUIP	PLT311	1.00000	0.00831	0.75286
5	ACCT 320-OTHER EQUIPMENT	PLT320	1.00000	0.00831	0.75286
6	ACCT 375-GAS DIST STATION STR	PLT375	1.00000	0.00883	0.49790
7	ACCT 376-MAINS	PLT376	1.00000	0.01009	0.57114
8	ACCT 378-GAS MEAS & REG STA EQ	PLT378	1.00000	0.00883	0.49790
9	ACCT 380-SERVICES	PLT380	1.00000	0.06310	0.81329
10	ACCT 381-METERS	PLT381	1.00000	0.05068	0.69037
11	ACCT 382-METER INSTALLATION	PLT382	1.00000	0.05068	0.69037
12	ACCT 386-OTHER PROP CUST PREM	PLT386	1.00000	0.00883	0.49790
13	ACCT 383-HOUSE REGULATORS	PLT383	1.00000	0.05068	0.69037
14	ACCT 396-POWER OPERATED EQUIP	PLT396	0.00000	0.00000	0.00000
15	ACCT 390-STRUCTURES & IMPROV	PLT390	1.00000	0.03390	0.67262
16	ACCT 391-OFFICE FURN & EQUIP	PLT391	1.00000	0.03390	0.67262
17	ACCT 392-TRANSPORTATION EQUIP	PLT392	1.00000	0.03390	0.67262
18	ACCT 393-STORES EQUIPMENT	PLT393	1.00000	0.02916	0.64874
19	ACCT 394-TOOLS, SHOP & GAR EQ	PLT394	1.00000	0.02916	0.64874
20	ACCT 395-LABORATORY EQUIPMENT	PLT395	1.00000	0.02916	0.64874
21	ACCT 397-COMMUNICATION EQUIP	PLT397	1.00000	0.03390	0.67262
22	ACCT 398-MISCELLANEOUS EQUIP	PLT398	1.00000	0.03390	0.67262
23	ACCT 376 MAINS & 380 SERVICES	PLT37680	1.00000	0.02788	0.65239
24	TOTAL DISTRIBUTION PLANT	DISTRPLT	1.00000	0.02916	0.64874
25	ACCT 381 - 384 METER & HSE REGUL	PLT3814	1.00000	0.05068	0.69037
26	ACCT 871-879 DIST OPER EXP	EXP8719	1.00000	0.04050	0.65975
27	REV CLAIMED ROR LESS GAS COSTS	REVCLAIM	1.00000	0.03106	0.65799
28	TOTAL GENERAL PLANT	GENPLT	1.00000	0.03275	0.66684
29	TOTAL WORKING CASH EXPENSE	CWCEXP	1.00000	0.02917	0.66672
30	ACCT 304-LAND & LAND RIGHTS	PLT304	1.00000	0.00831	0.75286
31	ACCT 360-LAND & LAND RIGHTS	PLT360	1.00000	0.00831	0.75286
32	ACCT 374-LAND & LAND RIGHTS	PLT374	1.00000	0.00883	0.49790
33	ACCT 871-880 DIST OPER EXP	EXP8710	1.00000	0.04050	0.65975
34	TOTAL LNG PLANT	LNGPLT	1.00000	0.00831	0.75286
35	ACCT 399-OTHER TANGIBLE PROP	PLT399	1.00000	0.03390	0.67262
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	INTERNALLY DEVELOPED-34	ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
1	TOTAL GAS PLANT IN SERVICE	PLANT	0.08188	0.11308	0.05011	0.02020	0.00873	0.03892	0.00602
2	SUM OF ALLOCATED LABOR EXP	LABOR	0.08989	0.10656	0.03880	0.01519	0.00737	0.03107	0.00461
3	ACCT 305-STRUCTURES & IMPROVE	PLT305	0.09723	0.10943	0.02593	0.00361	0.00222	0.00041	0.00000
4	ACCT 311-LP GAS EQUIP	PLT311	0.09723	0.10943	0.02593	0.00361	0.00222	0.00041	0.00000
5	ACCT 320-OTHER EQUIPMENT	PLT320	0.09723	0.10943	0.02593	0.00361	0.00222	0.00041	0.00000
6	ACCT 375-GAS DIST STATION STR	PLT375	0.06475	0.13601	0.06838	0.02804	0.03101	0.14279	0.02229
7	ACCT 376-MAINS	PLT376	0.07430	0.15569	0.07844	0.03190	0.01240	0.05712	0.00892
8	ACCT 378-GAS MEAS & REG STA EQ	PLT378	0.06475	0.13601	0.06838	0.02804	0.03101	0.14279	0.02229
9	ACCT 380-SERVICES	PLT380	0.08959	0.02535	0.00500	0.00224	0.00036	0.00097	0.00010
10	ACCT 381-METERS	PLT381	0.10468	0.11547	0.01944	0.00739	0.00345	0.00766	0.00086
11	ACCT 382-METER INSTALLATION	PLT382	0.10468	0.11547	0.01944	0.00739	0.00345	0.00766	0.00086
12	ACCT 386-OTHER PROP CUST PREM	PLT386	0.06475	0.13601	0.06838	0.02804	0.03101	0.14279	0.02229
13	ACCT 383-HOUSE REGULATORS	PLT383	0.10468	0.11547	0.01944	0.00739	0.00345	0.00766	0.00086
14	ACCT 396-POWER OPERATED EQUIP	PLT396	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
15	ACCT 390-STRUCTURES & IMPROV	PLT390	0.08989	0.10656	0.03880	0.01519	0.00737	0.03107	0.00461
16	ACCT 391-OFFICE FURN & EQUIP	PLT391	0.08989	0.10656	0.03880	0.01519	0.00737	0.03107	0.00461
17	ACCT 392-TRANSPORTATION EQUIP	PLT392	0.08989	0.10656	0.03880	0.01519	0.00737	0.03107	0.00461
18	ACCT 393-STORES EQUIPMENT	PLT393	0.08115	0.11343	0.05120	0.02084	0.00896	0.04028	0.00624
19	ACCT 394-TOOLS, SHOP & GAR EQ	PLT394	0.08115	0.11343	0.05120	0.02084	0.00896	0.04028	0.00624
20	ACCT 395-LABORATORY EQUIPMENT	PLT395	0.08115	0.11343	0.05120	0.02084	0.00896	0.04028	0.00624
21	ACCT 397-COMMUNICATION EQUIP	PLT397	0.08989	0.10656	0.03880	0.01519	0.00737	0.03107	0.00461
22	ACCT 398-MISCELLANEOUS EQUIP	PLT398	0.08989	0.10656	0.03880	0.01519	0.00737	0.03107	0.00461
23	ACCT 376 MAINS & 380 SERVICES	PLT37680	0.07943	0.11196	0.05380	0.02195	0.00836	0.03828	0.00596
24	TOTAL DISTRIBUTION PLANT	DISTRPLT	0.08115	0.11343	0.05120	0.02084	0.00896	0.04028	0.00624
25	ACCT 381 - 384 METER & HSE REGUL	PLT3814	0.10468	0.11547	0.01944	0.00739	0.00345	0.00766	0.00086
26	ACCT 871-879 DIST OPER EXP	EXP8719	0.09368	0.11561	0.03307	0.01317	0.00799	0.03152	0.00471
27	REV CLAIMED ROR LESS GAS COSTS	REVCLAIM	0.08699	0.11084	0.04524	0.01817	0.00819	0.03602	0.00549
28	TOTAL GENERAL PLANT	GENPLT	0.08777	0.10822	0.04180	0.01656	0.00775	0.03330	0.00500
29	TOTAL WORKING CASH EXPENSE	CWCEXP	0.08848	0.10987	0.04230	0.01509	0.00826	0.03470	0.00542
30	ACCT 304-LAND & LAND RIGHTS	PLT304	0.09723	0.10943	0.02593	0.00361	0.00222	0.00041	0.00000
31	ACCT 360-LAND & LAND RIGHTS	PLT360	0.09723	0.10943	0.02593	0.00361	0.00222	0.00041	0.00000
32	ACCT 374-LAND & LAND RIGHTS	PLT374	0.06475	0.13601	0.06838	0.02804	0.03101	0.14279	0.02229
33	ACCT 871-880 DIST OPER EXP	EXP8710	0.09368	0.11561	0.03307	0.01317	0.00799	0.03152	0.00471
34	TOTAL LNG PLANT	LNGPLT	0.09723	0.10943	0.02593	0.00361	0.00222	0.00041	0.00000
35	ACCT 399-OTHER TANGIBLE PROP	PLT399	0.08989	0.10656	0.03880	0.01519	0.00737	0.03107	0.00461
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	INTERNALLY DEVELOPED CONT-35	ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
1	ACCT 813-OTH GAS SUPPLY EXP	EXP813	1.00000	0.01468	0.72810
2	ACCT 846-OTHER EXPENSES	EXP846	0.00000	0.00000	0.00000
3	ACCT 847.2-MAINT STRUCT & INMPROV	EXP8472	0.00000	0.00000	0.00000
4	ACCT 847.3-MAINT LNG PROCESS TERM I	EXP8473	0.00000	0.00000	0.00000
5	ACCT 847.5-MAINT MEAS/REG EQUIP	EXP8475	0.00000	0.00000	0.00000
6	ACCT 847.8-MAINT OF VAPORIZING EQ	EXP8478	0.00000	0.00000	0.00000
7	ACCT 871-SYSTEM CONTROL & DISP	EXP871	1.00000	0.00883	0.49790
8	ACCT 873-COMP STA FUEL & POW	EXP873	1.00000	0.00883	0.49790
9	ACCT 874-MAINS & SERVICE EXP	EXP874	1.00000	0.02788	0.65239
10	ACCT 875-OPER STATION EXP - GEN	EXP875	1.00000	0.00883	0.49790
11	ACCT 878-METER & HOUSE REG EXP	EXP878	1.00000	0.05068	0.69037
12	ACCT 879-CUSTOMER INSTALL EXP	EXP879	1.00000	0.06000	0.78262
13	ACCT 880-OTHER EXPENSE	EXP880	1.00000	0.04050	0.65975
14	ACCT 887-MAINTENANCE OF MAINS	EXP887	1.00000	0.01009	0.57114
15	ACCT 889-MT OF M & R STA EQ	EXP889	1.00000	0.00883	0.49790
16	ACCT 890-MT OF REG EQ (INDUST)	EXP890	1.00000	0.00883	0.49790
17	ACCT 891-MT OF REG EQ (CITY GATE)	EXP891	0.00000	0.00000	0.00000
18	ACCT 892-MAINTENANCE OF SERV	EXP892	1.00000	0.06310	0.81329
19	ACCT 893-MAINT MET & HOUSE REG	EXP893	1.00000	0.05068	0.69037
20	ACCT 902-METER READING EXP	EXP902	1.00000	0.05530	0.73455
21	ACCT 903-CUST RECORDS & COLL	EXP903	1.00000	0.05559	0.87335
22	ACCT 908-CUST ASSISTANCE EXP	EXP908	1.00000	0.00832	0.11106
23	ACCT 904-UNCOLLECTIBLE ACCTS	EXP904	1.00000	0.03106	0.65799
24	ACCT 904-UNCOLL ACCTS EXP BASE	EXP904B	1.00000	0.03106	0.65799
25	ACCT 920-ADMIN & GEN SALARY	EXP920	1.00000	0.03390	0.67262
26	ACCT 923-OUTSIDE SERV EMPLOYED	EXP923	1.00000	0.03390	0.67262
27	ACCT 930-MISC GEN EXP	EXP930	1.00000	0.03390	0.67262
28	ACCT 932-MAINT OF GENERAL PLT	EXP932	1.00000	0.03275	0.66684
29	ACCT 863-MAINTENANCE OF MAINS	EXP863	1.00000	0.01009	0.57114
30	STORAGE LABOR ACCTS 846-847	LABSO	0.00000	0.00000	0.00000
31	DIST LAB OPER ACCT 861 & 871 - 880	LABDO	1.00000	0.04143	0.66211
32	DIST LABOR MAINT ACCT 886 - 894	LABDM	1.00000	0.04097	0.69175
33	CUST ACCTS LAB ACCT 902,903 & 905	LABCA	1.00000	0.05557	0.86413
34	SALES LABOR ACCT 912 - 916	LABSA	1.00000	0.03632	0.66322
35	CUST SERV & INFO LABOR 908-910	LABSI	1.00000	0.00832	0.11106
36	TOTAL STORAGE LABOR	TLABSO	1.00000	0.00831	0.75286
37	TOTAL DISTR OPER LABOR	TLABDO	1.00000	0.04143	0.66211
38	TOTAL DISTR MAINT LABOR	TLABDM	1.00000	0.04097	0.69175
39	TOTAL SALES LABOR	TLABSA	1.00000	0.03632	0.66322
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	INTERNALLY DEVELOPED CONT-35	ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
1	ACCT 813-OTH GAS SUPPLY EXP	EXP813	0.08729	0.12285	0.02419	0.00883	0.00242	0.00285	0.00878
2	ACCT 846-OTHER EXPENSES	EXP846	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
3	ACCT 847.2-MAINT STRUCT & INMPROV	EXP8472	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
4	ACCT 847.3-MAINT LNG PROCESS TERM I	EXP8473	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
5	ACCT 847.5-MAINT MEAS/REG EQUIP	EXP8475	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
6	ACCT 847.8-MAINT OF VAPORIZING EQ	EXP8478	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
7	ACCT 871-SYSTEM CONTROL & DISP	EXP871	0.06475	0.13601	0.06838	0.02804	0.03101	0.14279	0.02229
8	ACCT 873-COMP STA FUEL & POW	EXP873	0.06475	0.13601	0.06838	0.02804	0.03101	0.14279	0.02229
9	ACCT 874-MAINS & SERVICE EXP	EXP874	0.07943	0.11196	0.05380	0.02195	0.00836	0.03828	0.00596
10	ACCT 875-OPER STATION EXP - GEN	EXP875	0.06475	0.13601	0.06838	0.02804	0.03101	0.14279	0.02229
11	ACCT 878-METER & HOUSE REG EXP	EXP878	0.10468	0.11547	0.01944	0.00739	0.00345	0.00766	0.00086
12	ACCT 879-CUSTOMER INSTALL EXP	EXP879	0.09336	0.04783	0.00860	0.00352	0.00113	0.00264	0.00029
13	ACCT 880-OTHER EXPENSE	EXP880	0.09368	0.11561	0.03307	0.01317	0.00799	0.03152	0.00471
14	ACCT 887-MAINTENANCE OF MAINS	EXP887	0.07430	0.15569	0.07844	0.03190	0.01240	0.05712	0.00892
15	ACCT 889-MT OF M & R STA EQ	EXP889	0.06475	0.13601	0.06838	0.02804	0.03101	0.14279	0.02229
16	ACCT 890-MT OF REG EQ (INDUST)	EXP890	0.06475	0.13601	0.06838	0.02804	0.03101	0.14279	0.02229
17	ACCT 891-MT OF REG EQ (CITY GATE)	EXP891	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
18	ACCT 892-MAINTENANCE OF SERV	EXP892	0.08959	0.02535	0.00500	0.00224	0.00036	0.00097	0.00010
19	ACCT 893-MAINT MET & HOUSE REG	EXP893	0.10468	0.11547	0.01944	0.00739	0.00345	0.00766	0.00086
20	ACCT 902-METER READING EXP	EXP902	0.08054	0.07084	0.04137	0.01034	0.00196	0.00458	0.00051
21	ACCT 903-CUST RECORDS & COLL	EXP903	0.04961	0.01872	0.00197	0.00039	0.00006	0.00028	0.00003
22	ACCT 908-CUST ASSISTANCE EXP	EXP908	0.66927	0.18389	0.01589	0.00717	0.00115	0.00325	0.00000
23	ACCT 904-UNCOLLECTIBLE ACCTS	EXP904	0.08699	0.11084	0.04524	0.01817	0.00819	0.03602	0.00549
24	ACCT 904-UNCOLL ACCTS EXP BASE	EXP904B	0.08699	0.11084	0.04524	0.01817	0.00819	0.03602	0.00549
25	ACCT 920-ADMIN & GEN SALARY	EXP920	0.08989	0.10656	0.03880	0.01519	0.00737	0.03107	0.00461
26	ACCT 923-OUTSIDE SERV EMPLOYED	EXP923	0.08989	0.10656	0.03880	0.01519	0.00737	0.03107	0.00461
27	ACCT 930-MISC GEN EXP	EXP930	0.08989	0.10656	0.03880	0.01519	0.00737	0.03107	0.00461
28	ACCT 932-MAINT OF GENERAL PLT	EXP932	0.08777	0.10822	0.04180	0.01656	0.00775	0.03330	0.00500
29	ACCT 863-MAINTENANCE OF MAINS	EXP863	0.07430	0.15569	0.07844	0.03190	0.01240	0.05712	0.00892
30	STORAGE LABOR ACCTS 846-847	LABSO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
31	DIST LAB OPER ACCT 861 & 871 - 880	LABDO	0.09461	0.11539	0.03174	0.01261	0.00770	0.02996	0.00445
32	DIST LABOR MAINT ACCT 886 - 894	LABDM	0.08706	0.09251	0.03420	0.01388	0.00669	0.02858	0.00436
33	CUST ACCTS LAB ACCT 902,903 & 905	LABCA	0.05167	0.02218	0.00459	0.00105	0.00019	0.00057	0.00006
34	SALES LABOR ACCT 912 - 916	LABSA	0.06683	0.07928	0.03408	0.01689	0.01548	0.08790	0.00000
35	CUST SERV & INFO LABOR 908-910	LABSI	0.66927	0.18389	0.01589	0.00717	0.00115	0.00325	0.00000
36	TOTAL STORAGE LABOR	TLABSO	0.09723	0.10943	0.02593	0.00361	0.00222	0.00041	0.00000
37	TOTAL DISTR OPER LABOR	TLABDO	0.09461	0.11539	0.03174	0.01261	0.00770	0.02996	0.00445
38	TOTAL DISTR MAINT LABOR	TLABDM	0.08706	0.09251	0.03420	0.01388	0.00669	0.02858	0.00436
39	TOTAL SALES LABOR	TLABSA	0.06683	0.07928	0.03408	0.01689	0.01548	0.08790	0.00000
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	INTERNALLY DEVELOPED CONT-36	ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
1	TOTAL CUST ACCTS LABOR	TLABCA	1.00000	0.05557	0.86413
2	CUSTOMER SERVICE & INFO LABOR	TLABSE	1.00000	0.00832	0.11106
3	ACCT 888-MNT COMPRESSOR STA EQ	EXP888	1.00000	0.00883	0.49790
4	ACCT 894-MAINT OF OTHER EQUIP	EXP894	1.00000	0.00883	0.49790
5	ACCT 921-OFFICE SUPPLIES & EXP	EXP921	1.00000	0.03390	0.67262
6	ACCT 926-EMPLOY PENSION & BENF	EXP926	1.00000	0.03390	0.67262
7	ACCT 380-384-SERV,METRS & REGUL	PLT3804	1.00000	0.06000	0.78262
8	ACCT 925-INJURIES & DAMAGES	EXP925	1.00000	0.03390	0.67262
9	ACCT 302-GAS FRANCHISES & CON	PLT302	1.00000	0.02879	0.65228
10	ACCT 303-MISC INTANGIBLE PLT	PLT303	1.00000	0.02879	0.65228
11	ACCT 303-MISC INTANG PLT - SOFT	PLT303SL	1.00000	0.03390	0.67262
12	ACCT 307-OTHER POWER EQUIP	PLT307	1.00000	0.00831	0.75286
13	ACCT 361-STRUCTURES & IMPROV	PLT361	1.00000	0.00831	0.75286
14	ACCT 362-GAS HOLDERS & LNG EQ	PLT362	1.00000	0.00831	0.75286
15	ACCT 363-PURIFICATION EQUIP	PLT363	1.00000	0.00831	0.75286
16	ACCT 377-DIST COMP STATION EQ	PLT377	1.00000	0.00883	0.49790
17	ACCT 379-DIST MEAS & REG GS EQ	PLT379	1.00000	0.00883	0.49790
18	ACCT 384-HOUSE REGUL INSTALLS	PLT384	1.00000	0.05068	0.69037
19	ACCT 385-IND MEAS & REG STA EQ	PLT385	1.00000	0.00883	0.49790
20	ACCT 387-DIST OTHER EQUIP	PLT387	1.00000	0.00883	0.49790
21	ACCT 389-LAND & LAND RIGHTS	PLT389	1.00000	0.03390	0.67262
22	ACCT 378 & 379-GAS M & R STAT EQ	PLT3789	1.00000	0.00883	0.49790
23	CUSTOMER ACCTS EXP 902 - 903	EXP9023	1.00000	0.05557	0.86333
24					
25	ACCT 876-OPER STAT EXP - INDUST	EXP876	1.00000	0.00883	0.49790
26	ACCT 905-MISC CUST ACCTS EXP	EXP905	1.00000	0.05557	0.86333
27	ACCT 910-CUST SERVICE MISC EXP	EXP910	1.00000	0.00832	0.11106
28	ACCT 912-DEMO & SELLING EXP	EXP912	1.00000	0.03632	0.66322
29	ACCT 916-MISC SALES EXP	EXP916	1.00000	0.03632	0.66322
30	ACCT 924-PROPERTY INSURANCE	EXP924	1.00000	0.02879	0.65228
31	ACCT 928-REGULATORY COMM EXP	EXP928	1.00000	0.03106	0.65799
32	ACCT 929-DUPLICATE CHRG - CREDIT	EXP929	0.00000	0.00000	0.00000
33	ACCT 931-RENTS	EXP931	1.00000	0.03390	0.67262
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36	ACCT 909-INFO & INST ADV EXP & EE	EXP909	1.00000	0.00832	0.11106
37	ACCT 913-ADVERTISING EXP	EXP913	1.00000	0.03632	0.66322
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		ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
1	TOTAL CUST ACCTS LABOR	TLABCA	0.05167	0.02218	0.00459	0.00105	0.00019	0.00057	0.00006
2	CUSTOMER SERVICE & INFO LABOR	TLABSE	0.66927	0.18389	0.01589	0.00717	0.00115	0.00325	0.00000
3	ACCT 888-MNT COMPRESSOR STA EQ	EXP888	0.06475	0.13601	0.06838	0.02804	0.03101	0.14279	0.02229
4	ACCT 894-MAINT OF OTHER EQUIP	EXP894	0.06475	0.13601	0.06838	0.02804	0.03101	0.14279	0.02229
5	ACCT 921-OFFICE SUPPLIES & EXP	EXP921	0.08989	0.10656	0.03880	0.01519	0.00737	0.03107	0.00461
6	ACCT 926-EMPLOY PENSION & BENF	EXP926	0.08989	0.10656	0.03880	0.01519	0.00737	0.03107	0.00461
7	ACCT 380-384-SERV,METRS & REGUL	PLT3804	0.09336	0.04783	0.00860	0.00352	0.00113	0.00264	0.00029
8	ACCT 925-INJURIES & DAMAGES	EXP925	0.08989	0.10656	0.03880	0.01519	0.00737	0.03107	0.00461
9	ACCT 302-GAS FRANCHISES & CON	PLT302	0.08188	0.11308	0.05011	0.02020	0.00873	0.03892	0.00602
10	ACCT 303-MISC INTANGIBLE PLT	PLT303	0.08188	0.11308	0.05011	0.02020	0.00873	0.03892	0.00602
11	ACCT 303-MISC INTANG PLT - SOFT	PLT303SL	0.08989	0.10656	0.03880	0.01519	0.00737	0.03107	0.00461
12	ACCT 307-OTHER POWER EQUIP	PLT307	0.09723	0.10943	0.02593	0.00361	0.00222	0.00041	0.00000
13	ACCT 361-STRUCTURES & IMPROV	PLT361	0.09723	0.10943	0.02593	0.00361	0.00222	0.00041	0.00000
14	ACCT 362-GAS HOLDERS & LNG EQ	PLT362	0.09723	0.10943	0.02593	0.00361	0.00222	0.00041	0.00000
15	ACCT 363-PURIFICATION EQUIP	PLT363	0.09723	0.10943	0.02593	0.00361	0.00222	0.00041	0.00000
16	ACCT 377-DIST COMP STATION EQ	PLT377	0.06475	0.13601	0.06838	0.02804	0.03101	0.14279	0.02229
17	ACCT 379-DIST MEAS & REG GS EQ	PLT379	0.06475	0.13601	0.06838	0.02804	0.03101	0.14279	0.02229
18	ACCT 384-HOUSE REGUL INSTALLS	PLT384	0.10468	0.11547	0.01944	0.00739	0.00345	0.00766	0.00086
19	ACCT 385-IND MEAS & REG STA EQ	PLT385	0.06475	0.13601	0.06838	0.02804	0.03101	0.14279	0.02229
20	ACCT 387-DIST OTHER EQUIP	PLT387	0.06475	0.13601	0.06838	0.02804	0.03101	0.14279	0.02229
21	ACCT 389-LAND & LAND RIGHTS	PLT389	0.08989	0.10656	0.03880	0.01519	0.00737	0.03107	0.00461
22	ACCT 378 & 379-GAS M & R STAT EQ	PLT3789	0.06475	0.13601	0.06838	0.02804	0.03101	0.14279	0.02229
23	CUSTOMER ACCTS EXP 902 - 903	EXP9023	0.05184	0.02248	0.00481	0.00110	0.00020	0.00059	0.00006
24									
25	ACCT 876-OPER STAT EXP - INDUST	EXP876	0.06475	0.13601	0.06838	0.02804	0.03101	0.14279	0.02229
26	ACCT 905-MISC CUST ACCTS EXP	EXP905	0.05184	0.02248	0.00481	0.00110	0.00020	0.00059	0.00006
27	ACCT 910-CUST SERVICE MISC EXP	EXP910	0.66927	0.18389	0.01589	0.00717	0.00115	0.00325	0.00000
28	ACCT 912-DEMO & SELLING EXP	EXP912	0.06683	0.07928	0.03408	0.01689	0.01548	0.08790	0.00000
29	ACCT 916-MISC SALES EXP	EXP916	0.06683	0.07928	0.03408	0.01689	0.01548	0.08790	0.00000
30	ACCT 924-PROPERTY INSURANCE	EXP924	0.08188	0.11308	0.05011	0.02020	0.00873	0.03892	0.00602
31	ACCT 928-REGULATORY COMM EXP	EXP928	0.08699	0.11084	0.04524	0.01817	0.00819	0.03602	0.00549
32	ACCT 929-DUPLICATE CHRG - CREDIT	EXP929	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
33	ACCT 931-RENTS	EXP931	0.08989	0.10656	0.03880	0.01519	0.00737	0.03107	0.00461
34									
35									
36	ACCT 909-INFO & INST ADV EXP & EE	EXP909	0.66927	0.18389	0.01589	0.00717	0.00115	0.00325	0.00000
37	ACCT 913-ADVERTISING EXP	EXP913	0.06683	0.07928	0.03408	0.01689	0.01548	0.08790	0.00000
38									
39									
40									

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NATIONAL GRID - RHODE ISLAND
GAS COST OF SERVICE STUDY
12 MONTHS ENDED AUGUST 31, 2019

	INTERNALLY DEVELOPED CONT-37	ALLOC	TOTAL COMPANY	RESIDENTIAL NON-HEATING RATE 10, 11 & 80	RESIDENTIAL HEATING RATE 12 & 13
	REVENUES FROM GAS SALES				
1	REVENUES FIRM SALES OF GAS		1.00000	0.02249	0.65668
2					
3					
4					
5					
6					
7					
8					
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10					
11					
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17					
18					

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NATIONAL GRID - RHODE ISLAND
GAS COST OF SERVICE STUDY
12 MONTHS ENDED AUGUST 31, 2019

	INTERNALLY DEVELOPED CONT-37	ALLOC	COMM & IND SMALL RATE 21	COMM & IND MEDIUM RATE 22	C & I LARGE LOW LOAD FAC RATE 33	C & I LARGE HIGH LOAD FAC RATE 23	C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
	REVENUES FROM GAS SALES								
1	REVENUES FIRM SALES OF GAS		0.08020	0.11701	0.05033	0.01727	0.00937	0.04012	0.00653
2									
3									
4									
5									
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16									
17									
18									

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National Grid Rhode Island

Calculation of RSUM Allocation Factor

Ia. Normalized Sales (dth) Cycle Billed

Month	RNH	RH	Small	Medium	Large Low	Large High	XL Low	XL High	Non Firm	Total
Jan-19	46,597	3,246,731	438,162	793,161	314,857	93,779	17,244	59,928	0	5,010,458
Feb-19	44,705	3,555,556	460,027	764,855	330,492	86,156	17,797	54,665	0	5,314,253
Mar-19	61,750	3,093,733	416,409	743,877	297,927	83,956	16,157	56,115	118,002	4,887,927
Apr-19	47,559	2,116,621	279,819	543,463	196,244	73,245	11,425	55,920	138,259	3,462,555
May-19	30,993	1,147,793	128,081	355,479	115,374	70,458	6,858	49,302	148,550	2,052,889
Jun-19	21,083	626,342	81,077	205,320	51,560	63,187	3,832	48,274	134,891	1,235,567
Jul-19	15,540	446,694	48,587	156,797	28,046	49,840	1,481	43,584	158,051	948,621
Aug-19	14,109	408,788	46,159	160,197	25,486	44,753	1,245	43,148	202,256	946,141
Sep-18	15,072	439,199	51,076	144,327	36,371	44,143	1,657	52,636	181,903	966,384
Oct-18	17,762	547,980	64,078	189,328	46,900	49,831	2,830	46,869	151,701	1,117,280
Nov-18	24,814	1,236,825	134,418	335,127	125,056	59,092	6,703	52,140	156,983	2,131,158
Dec-18	37,551	2,309,569	315,281	600,558	252,347	75,680	13,754	57,876	0	3,662,616
	377,535	19,175,829	2,463,176	4,992,488	1,820,660	794,120	100,984	620,459	1,390,597	31,735,848
	377,535	19,175,829	2,463,176	4,992,488	1,820,660	794,120	100,984	620,459	1,748,031	32,093,282

IIa. Normalized Sales per Billing Day

Month	Billing Days	RNH	RH	Small	Medium	Large Low	Large High	XL Low	XL High	Non Firm				Total
Jan-19	31.05	1,501	104,565	14,111	25,545	10,140	3,020	555	1,930	0	0	0	0	161,367
Feb-19	29.40	1,521	120,937	15,647	26,015	11,241	2,930	605	1,859	0	0	0	0	180,757
Mar-19	29.90	2,065	103,469	13,927	24,879	9,964	2,808	540	1,877	3,947	0	0	0	163,476
Apr-19	31.15	1,527	67,949	8,983	17,447	6,300	2,351	367	1,795	4,438	0	0	0	111,157
May-19	30.35	1,021	37,819	4,220	11,713	3,801	2,322	226	1,624	4,895	0	0	0	67,640
Jun-19	30.80	685	20,336	2,632	6,666	1,674	2,052	124	1,567	4,380	0	0	0	40,116
Jul-19	31.35	496	14,249	1,550	5,002	895	1,590	47	1,390	5,042	0	0	0	30,259
Aug-19	29.75	474	13,741	1,552	5,385	857	1,504	42	1,450	6,799	0	0	0	31,803
Sep-18	30.25	498	14,519	1,688	4,771	1,202	1,459	55	1,740	6,013	0	0	0	31,947
Oct-18	30.10	590	18,205	2,129	6,290	1,558	1,656	94	1,557	5,040	0	0	0	37,119
Nov-18	29.65	837	41,714	4,534	11,303	4,218	1,993	226	1,759	5,295	0	0	0	71,877
Dec-18	31.20	1,204	74,025	10,105	19,249	8,088	2,426	441	1,855	0	0	0	0	117,392
	364.95													

Calculation of RSUM Allocation Factor

Ib. Normalized Sales (dth) Monthly Billed

Month	RNH	RH	Small	Medium	Large Low	Large High	XL Low	XL High	Non Firm	Total	
Jan-19	0	0	0	78,020	149,345	49,821	197,300	603,515		1,078,001	
Feb-19	0	0	0	66,391	129,855	44,378	173,618	518,000		932,241	
Mar-19	0	0	0	59,966	112,188	47,831	153,616	547,475		921,076	
Apr-19	0	0	0	49,557	64,337	42,880	94,739	547,929		799,444	
May-19	0	0	0	30,013	31,674	38,523	53,399	506,196		659,805	
Jun-19	0	0	0	20,940	18,873	38,113	24,477	496,512		598,915	
Jul-19	0	0	0	20,431	13,936	46,127	17,891	510,636		609,021	
Aug-19	0	0	0	18,775	13,898	46,954	17,787	503,527		600,941	
Sep-18	0	0	0	21,408	18,967	34,094	23,902	469,060		567,430	
Oct-18	0	0	0	35,110	49,002	36,631	75,069	501,048		696,861	
Nov-18	0	0	0	50,601	84,740	39,761	115,296	529,862		820,259	
Dec-18	0	0	0	80,985	129,240	51,042	175,055	606,891		1,043,214	
				532,197	816,055	516,158	1,122,150	6,340,650		9,327,209	41,063,057
				532,197	816,055	516,158	1,122,150	6,340,650		9,327,209	39,672,460

IIb. Normalized Sales per Billing Day

Month	Billing Days	RNH	RH	Small	Medium	Large Low	Large High	XL Low	XL High	Non Firm				Total
Jan-19	31.00	0	0	0	2,517	4,818	1,607	6,365	19,468	0	0	0	0	34,774
Feb-19	28.00	0	0	0	2,371	4,638	1,585	6,201	18,500	0	0	0	0	33,294
Mar-19	31.00	0	0	0	1,934	3,619	1,543	4,955	17,660	0	0	0	0	29,712
Apr-19	30.00	0	0	0	1,652	2,145	1,429	3,158	18,264	0	0	0	0	26,648
May-19	31.00	0	0	0	968	1,022	1,243	1,723	16,329	0	0	0	0	21,284
Jun-19	30.00	0	0	0	698	629	1,270	816	16,550	0	0	0	0	19,964
Jul-19	31.00	0	0	0	659	450	1,488	577	16,472	0	0	0	0	19,646
Aug-19	31.00	0	0	0	606	448	1,515	574	16,243	0	0	0	0	19,385
Sep-18	30.00	0	0	0	714	632	1,136	797	15,635	0	0	0	0	18,914
Oct-18	31.00	0	0	0	1,133	1,581	1,182	2,422	16,163	0	0	0	0	22,479
Nov-18	30.00	0	0	0	1,687	2,825	1,325	3,843	17,662	0	0	0	0	27,342
Dec-18	31.00	0	0	0	2,612	4,169	1,647	5,647	19,577	0	0	0	0	33,652

Calculation of RSUM Allocation Factor

IIc. Combined Normalized Sales per Billing Day

Month	RNH	RH	Small	Medium	Large Low	Large High	XL Low	XL High	Non Firm				Total	Rank
Jan-19	1,501	104,565	14,111	28,061	14,958	4,627	6,920	21,398	0	0	0	0	196,142	2
Feb-19	1,521	120,937	15,647	28,387	15,879	4,515	6,806	20,359	0	0	0	0	214,051	1
Mar-19	2,065	103,469	13,927	26,813	13,583	4,351	5,496	19,537	3,947	0	0	0	193,188	3
Apr-19	1,527	67,949	8,983	19,099	8,445	3,781	3,525	20,059	4,438	0	0	0	137,806	5
May-19	1,021	37,819	4,220	12,681	4,823	3,564	1,949	17,953	4,895	0	0	0	88,925	7
Jun-19	685	20,336	2,632	7,364	2,303	3,322	940	18,118	4,380	0	0	0	60,080	8
Jul-19	496	14,249	1,550	5,661	1,344	3,078	624	17,862	5,042	0	0	0	49,905	12
Aug-19	474	13,741	1,552	5,990	1,305	3,019	616	17,693	6,799	0	0	0	51,188	10
Sep-18	498	14,519	1,688	5,485	1,835	2,596	852	17,375	6,013	0	0	0	50,861	11
Oct-18	590	18,205	2,129	7,423	3,139	2,837	2,516	17,720	5,040	0	0	0	59,598	9
Nov-18	837	41,714	4,534	12,989	7,042	3,318	4,069	19,421	5,295	0	0	0	99,219	6
Dec-18	1,204	74,025	10,105	21,861	12,257	4,072	6,088	21,432	0	0	0	0	151,044	4

III. Percentage of Sales per Billing Day by Month

Month	RNH	RH	Small	Medium	Large Low	Large High	XL Low	XL High	Non Firm				Total
Jan-19	0.77%	53.31%	7.19%	14.31%	7.63%	2.36%	3.53%	10.91%	0.00%	0.00%	0.00%	0.00%	100.00%
Feb-19	0.71%	56.50%	7.31%	13.26%	7.42%	2.11%	3.18%	9.51%	0.00%	0.00%	0.00%	0.00%	100.00%
Mar-19	1.07%	53.56%	7.21%	13.88%	7.03%	2.25%	2.84%	10.11%	2.04%	0.00%	0.00%	0.00%	100.00%
Apr-19	1.11%	49.31%	6.52%	13.86%	6.13%	2.74%	2.56%	14.56%	3.22%	0.00%	0.00%	0.00%	100.00%
May-19	1.15%	42.53%	4.75%	14.26%	5.42%	4.01%	2.19%	20.19%	5.50%	0.00%	0.00%	0.00%	100.00%
Jun-19	1.14%	33.85%	4.38%	12.26%	3.83%	5.53%	1.57%	30.16%	7.29%	0.00%	0.00%	0.00%	100.00%
Jul-19	0.99%	28.55%	3.11%	11.34%	2.69%	6.17%	1.25%	35.79%	10.10%	0.00%	0.00%	0.00%	100.00%
Aug-19	0.93%	26.84%	3.03%	11.70%	2.55%	5.90%	1.20%	34.56%	13.28%	0.00%	0.00%	0.00%	100.00%
Sep-18	0.98%	28.55%	3.32%	10.78%	3.61%	5.10%	1.67%	34.16%	11.82%	0.00%	0.00%	0.00%	100.00%
Oct-18	0.99%	30.55%	3.57%	12.45%	5.27%	4.76%	4.22%	29.73%	8.46%	0.00%	0.00%	0.00%	100.00%
Nov-18	0.84%	42.04%	4.57%	13.09%	7.10%	3.34%	4.10%	19.57%	5.34%	0.00%	0.00%	0.00%	100.00%
Dec-18	0.80%	49.01%	6.69%	14.47%	8.11%	2.70%	4.03%	14.19%	0.00%	0.00%	0.00%	0.00%	100.00%

Calculation of RSUM Allocation Factor

IV. Sort

Month	Sales/ Billing Day	% of Topline	Increment	Feb-19	Jan-19	Mar-19	Dec-18	Apr-19	Nov-18	May-19	Jun-19	Oct-18	Aug-19	Sep-18	Jul-19
Feb-19	214,051	100.00%	8.37%	8.37%											
Jan-19	196,142	91.63%	1.38%	0.69%	0.69%										
Mar-19	193,188	90.25%	19.69%	6.56%	6.56%	6.56%									
Dec-18	151,044	70.56%	6.18%	1.55%	1.55%	1.55%	1.55%								
Apr-19	137,806	64.38%	18.03%	3.61%	3.61%	3.61%	3.61%	3.61%							
Nov-18	99,219	46.35%	4.81%	0.80%	0.80%	0.80%	0.80%	0.80%	0.80%						
May-19	88,925	41.54%	13.48%	1.93%	1.93%	1.93%	1.93%	1.93%	1.93%	1.93%					
Jun-19	60,080	28.07%	0.22%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%				
Oct-18	59,598	27.84%	3.93%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%			
Aug-19	51,188	23.91%	0.15%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%		
Sep-18	50,861	23.76%	0.45%	0.04%	0.04%	0.04%	0.04%	0.04%	0.04%	0.04%	0.04%	0.04%	0.04%	0.04%	
Jul-19	49,905	23.31%	23.31%	1.94%	1.94%	1.94%	1.94%	1.94%	1.94%	1.94%	1.94%	1.94%	1.94%	1.94%	1.94%
			100.00%	**25.96%**	**17.59%**	**16.90%**	**10.34%**	**8.80%**	**5.19%**	**4.39%**	**2.46%**	**2.44%**	**2.00%**	**1.98%**	**1.94%**

V. RSUM

Month	Total %	RNH	RH	Small	Medium	Large Low	Large High	XL Low	XL High	Non Firm				Total
Feb-19	25.96%	0.18%	14.67%	1.90%	3.44%	1.93%	0.55%	0.83%	2.47%	0.00%	0.00%	0.00%	0.00%	25.96%
Jan-19	17.59%	0.13%	9.38%	1.27%	2.52%	1.34%	0.42%	0.62%	1.92%	0.00%	0.00%	0.00%	0.00%	17.59%
Mar-19	16.90%	0.18%	9.05%	1.22%	2.35%	1.19%	0.38%	0.48%	1.71%	0.35%	0.00%	0.00%	0.00%	16.90%
Dec-18	10.34%	0.08%	5.07%	0.69%	1.50%	0.84%	0.28%	0.42%	1.47%	0.00%	0.00%	0.00%	0.00%	10.34%
Apr-19	8.80%	0.10%	4.34%	0.57%	1.22%	0.54%	0.24%	0.22%	1.28%	0.28%	0.00%	0.00%	0.00%	8.80%
Nov-18	5.19%	0.04%	2.18%	0.24%	0.68%	0.37%	0.17%	0.21%	1.02%	0.28%	0.00%	0.00%	0.00%	5.19%
May-19	4.39%	0.05%	1.87%	0.21%	0.63%	0.24%	0.18%	0.10%	0.89%	0.24%	0.00%	0.00%	0.00%	4.39%
Jun-19	2.46%	0.03%	0.83%	0.11%	0.30%	0.09%	0.14%	0.04%	0.74%	0.18%	0.00%	0.00%	0.00%	2.46%
Oct-18	2.44%	0.02%	0.74%	0.09%	0.30%	0.13%	0.12%	0.10%	0.72%	0.21%	0.00%	0.00%	0.00%	2.44%
Aug-19	2.00%	0.02%	0.54%	0.06%	0.23%	0.05%	0.12%	0.02%	0.69%	0.27%	0.00%	0.00%	0.00%	2.00%
Sep-18	1.98%	0.02%	0.57%	0.07%	0.21%	0.07%	0.10%	0.03%	0.68%	0.23%	0.00%	0.00%	0.00%	1.98%
Jul-19	1.94%	0.02%	0.55%	0.06%	0.22%	0.05%	0.12%	0.02%	0.70%	0.20%	0.00%	0.00%	0.00%	1.94%
Total	**100.00%**	**0.88%**	**49.79%**	**6.47%**	**13.60%**	**6.84%**	**2.80%**	**3.10%**	**14.28%**	**2.23%**	**0.00%**	**0.00%**	**0.00%**	**100.00%**

Rate Class	Xlarge High Load Factor	Xlarge Low Load Factor	Total	Proposed Rates Xlarge High Load Factor	Xlarge Low Load Factor	Total
Current Rates						
Customer Charge	$625.00	$625.00		$735.00	735	
Usage Factor	$0.0733	$0.0912		$0.1106	$0.1470	
Annual Volume	12,533,193	4,947,118		12,533,193	4,947,118	
No. Customers	8	2		8	2	
Annual Distribution Revenue						
Customer Charge	$60,000	$15,000		$70,560	$17,640	
Volumetric	$918,683	$451,177		$1,386,171	$727,226	
Total	$978,683	$466,177	$1,444,860	$1,456,731	$744,866	$2,201,598

NATIONAL GRID - RHODE ISLAND
GAS COST OF SERVICE STUDY
12 MONTHS ENDED AUGUST 31, 2019

		C & I X LARGE LOW LOAD FAC RATE 34	C & I X LARGE HIGH LOAD FAC RATE 24	INTERRUPTIBLE
1				
2	CUST ALLOCATORS RATE YEAR w/o INTER			
3	ACCT 380-SERVICES	231,805	624,189	
4	ACCT 381-METERS	111,623	248,064	
5	ACCT 382-METER INSTALLATION	111,623	248,064	
6	ACCT 383-HOUSE REGULATORS	111,623	248,064	
7	ACCT 384-HOUSE REGUL INSTALLS	111,623	248,064	
8	ACCT 902-METER READ EXP	922	2,151	
9	ACCT 903-BILLING, POSTAGE & CALLS	459	2,108	
10				
11	**RATE YEAR**			
12	ANNUAL NO SALES CUST EXCL GAS LGHTS	48	36	
13	ANNUAL NO OF TRANS CUSTOMERS	360	1080	
14	TOTAL ANNUAL CUST EXCL GAS LIGHTS	408	1116	
15				
16	**COST PER CUSTOMER**			
17	ACCT 380-SERVICES	$6,818	$6,712	
18	ACCT 381-METERS	$3,283	$2,667	
19	ACCT 382-METER INSTALLATION	$3,283	$2,667	
20	ACCT 383-HOUSE REGULATORS	$3,283	$2,667	
21	ACCT 384-HOUSE REGUL INSTALLS	$3,283	$2,667	
22	ACCT 902-METER READ EXP	$27	$23	
23	ACCT 903-BILLING, POSTAGE & CALLS	$13	$23	
24				
25	INTERR NUMBER OF CUSTOMERS	2	8	10
26				
27				
28	**INTERR LOW LOAD FACTOR ALLOC**			
29	ACCT 380-SERVICES			$ 13,636
30	ACCT 381-METERS			$ 6,566
31	ACCT 382-METER INSTALLATION			$ 6,566
32	ACCT 383-HOUSE REGULATORS			$ 6,566
33	ACCT 384-HOUSE REGUL INSTALLS			$ 6,566
34	ACCT 902-METER READ EXP			$ 54
35	ACCT 903-BILLING, POSTAGE & CALLS			$ 27
36				
37	**INTERR HIGH LOAD FACTOR ALLOC**			
38	ACCT 380-SERVICES			$ 53,694
39	ACCT 381-METERS			$ 21,339
40	ACCT 382-METER INSTALLATION			$ 21,339
41	ACCT 383-HOUSE REGULATORS			$ 21,339
42	ACCT 384-HOUSE REGUL INSTALLS			$ 21,339
43	ACCT 902-METER READ EXP			$ 185
44	ACCT 903-BILLING, POSTAGE & CALLS			$ 181
45				
46	**TOTAL INTERRUPTIBLE CUSTR ALLOCATORS**			
47	ACCT 380-SERVICES			$ 67,329
48	ACCT 381-METERS			$ 27,905
49	ACCT 382-METER INSTALLATION			$ 27,905
50	ACCT 383-HOUSE REGULATORS			$ 27,905
51	ACCT 384-HOUSE REGUL INSTALLS			$ 27,905
52	ACCT 902-METER READ EXP			$ 239
53	ACCT 903-BILLING, POSTAGE & CALLS			$ 208

National Grid - RI Gas
Gas Cost Recovery (GCR) Filing
Factors Effective November 1, 2017

Line No.	Description	Source: Reference	Source: Line #	High Load[1]	Low Load[2]
	(a)	(b)	(c)	(d)	(e)
1	Fixed Cost Factor - $/dktherm	Page 2	Line (18)	$1.1467	$1.5688
2	Variable Cost Factor -$/dktherm	Page 3	Line (13)	$3.5807	$3.5807
3	Total Gas Cost Recovery Charge- $/dktherm	(1) + (2)		$4.7274	$5.1495
4	Uncollectible %	Schedule MAL-22 Pg 7	Line 15	2.08%	2.08%
5	Total GCR Charge adjusted for Uncollectibles- $/dkdtherm	(3) / [1 - (4)]		$4.8278	$5.2588
6	**GCR Charge on a per therm basis**	(5) / 10		**$0.4827**	**$0.5258**

* GCR rates approved with the Revised GCR filing per Docket 4647 filed on October 03, 2016

[1] Includes: Residential Non Heating, Large High Load and Extra Large High Load

[2] Includes: Residential Heating, Small C&I, Medium C&I, Large Low Load, Extra Large Low Load

National Grid - RI Gas
Gas Cost Recovery (GCR) Filing
Fixed Cost Calculation ($ per Dth)

Line No.	Description	Source Reference	Source Line #	Amount	High Load Factor Total	Low Load Factor Total
	(a)	(b)	(c)	(d)	(e)	(f)
1	Fixed Costs (net of Cap Rel to marketers)	Dk 4719		$53,921,320		
	Less:					
2	NGPMP Customer Benefit	Dk 4719		($10,900,000)		
3	Interruptible Costs			$0		
4	FT-2 Storage Demand Costs	Dk 4719		($2,040,370)		
5	Systeme Pressure to DAC	Dk 4719		($3,153,600)		
6	Refunds			$0		
7	Total Credits	sum[(2):(6)]		($16,093,970)		
	Plus:					
8	Supply Related LNG O&M Costs	Schedule MAL-32 pg 7	Line 12	$829,823		
9	Portable LNG Storage Cost			$0		
10	Working Capital Requirement	Page 4	Line 16	$478,171		
11	Deferred Fixed Cost Under-recovered	Dk 4719	Line (17)	$1,169,851		
12	Reconciliation Amount from Fixed costs- Marketers	Dk 4719	Line (50)	$36,098		
13	Total Additions	sum[(8):(12)]		$2,513,942		
14	Total Fixed Costs	(1) + (7) + (13)		$40,341,292		
15	Design Winter Sales Percentage	Dk 4719	Lines (10) & (11)		2.12%	97.88%
16	Allocated Supply Fixed Costs	(14) x (15)			$856,056	$39,485,236
17	Sales (Dt) Nov 2017 - Oct 2018	Dk 4719	Line (9)	25,914,442	746,482	25,167,960
18	**Fixed Factor**	(16) / (17)			**$1.1467**	**$1.5688**

National Grid - RI Gas
Gas Cost Recovery (GCR) Filing
Variable Cost Calculation ($ per Dth)

Line No.	Description	Source Reference	Source Line #	Amount
	(a)	(b)	(c)	(d)
1	Variable Costs, excluding Refunds	Dk 4719		$78,329,672
	Less:			
2	Non-Firm Sales			$0
3	Refunds	Dk 4719		$0
4	Total Credits	sum [(2):(3)]		$0
	Plus:			
5	Working Capital	Page 4	Line 32	$737,771
6	Deferred Variable Cost Under-recovered	Dk 4719	Line (35)	$12,377,603
7	Supply Related LNG O&M	Schedule MAL-32 pg 7	Line 15 - Line 12	$478,456
8	Inventory Financing - LNG	Page 5	Line 22	$227,237
9	Inventory Financing - Storage	Page 5	Line 12	$641,483
10	Total Additions	sum [(5):(9)]		$14,462,549
11	Total Variable Supply Costs	(1) + (4) + (10)		$92,792,222
12	Sales (Dt) Nov 2017 - Oct 2018	Dk 4719	Line (9)	25,914,442
13	**Variable Cost Factor**	(11) / (12)		**$3.5807**

National Grid - RI Gas
Gas Cost Recovery (GCR) Filing
Working Capital Estimate

Line No.	Description	Source	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Total
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
1	**Fixed Costs**	Dk 4719	$4,414,408	$4,448,398	$4,447,065	$4,444,929	$4,447,065	$4,531,059	$4,531,771	$4,531,059	$4,531,771	$4,531,771	$4,530,656	$4,531,368	$53,921,320
2	Capacity Release Revenue		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
3	Less: System Pressure to DAC	Dk 4719	($262,800)	($262,800)	($262,800)	($262,800)	($262,800)	($262,800)	($262,800)	($262,800)	($262,800)	($262,800)	($262,800)	($262,800)	($3,153,600)
4	Less: Credits		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
5															
6	Allowable Working Capital Costs	sum[(1):(5)]	$4,151,608	$4,185,598	$4,184,265	$4,182,129	$4,184,265	$4,268,259	$4,268,971	$4,268,259	$4,268,971	$4,268,971	$4,267,856	$4,268,568	$50,767,720
7	Number of Days Lag	Schedule MAL-42 Ln1 * 365	32.92	32.92	32.92	32.92	32.92	32.92	32.92	32.92	32.92	32.92	32.92	32.92	
8	Working Capital Requirement	[(6) * (7)] / 365	$374,441	$377,507	$377,386	$377,194	$377,386	$384,962	$385,026	$384,962	$385,026	$385,026	$384,925	$384,990	
9	Cost of Capital	Schedule MAL-1-GAS Pg 4	7.67%	7.67%	7.67%	7.67%	7.67%	7.67%	7.67%	7.67%	7.67%	7.67%	7.67%	7.67%	
10	Return on Working Capital Requirement	(8) * (9)	$28,720	$28,955	$28,946	$28,931	$28,946	$29,527	$29,532	$29,527	$29,532	$29,532	$29,524	$29,529	
11	Weighted Cost of Debt	Schedule MAL-1-GAS Pg 4	2.52%	2.52%	2.52%	2.52%	2.52%	2.52%	2.52%	2.52%	2.52%	2.52%	2.52%	2.52%	
12	Interest Expense	(8) * (11)	$9,436	$9,513	$9,510	$9,505	$9,510	$9,701	$9,703	$9,701	$9,703	$9,703	$9,700	$9,702	
13	Taxable Income	(10) - (12)	$19,284	$19,442	$19,435	$19,425	$19,435	$19,826	$19,829	$19,826	$19,829	$19,829	$19,824	$19,827	
14	1 - Combined Tax Rate	Dkt 4323	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	
15	Return and Tax Requirement	(13) / (14)	$29,667	$29,910	$29,901	$29,885	$29,901	$30,501	$30,506	$30,501	$30,506	$30,506	$30,498	$30,503	
16	**Fixed Working Capital Requirement**	(12) + (15)	$39,103	$39,423	$39,411	$39,391	$39,411	$40,202	$40,209	$40,202	$40,209	$40,209	$40,198	$40,205	$478,171
17	**Variable Costs**	Dk 4719	$5,645,914	$10,998,135	$17,208,947	$15,542,321	$10,715,275	$5,484,110	$3,165,666	$2,024,140	$1,607,551	$1,477,419	$1,545,483	$2,914,712	$78,329,672
18	Less: Non-firm Sales														$0
19	Less: Supply Refunds														$0
20	Less: Balancing Related System Pressure Commodity to DAC		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
21															
22	Allowable Working Capital Costs	sum[(17):(21)]	$5,645,914	$10,998,135	$17,208,947	$15,542,321	$10,715,275	$5,484,110	$3,165,666	$2,024,140	$1,607,551	$1,477,419	$1,545,483	$2,914,712	$78,329,672
23	Number of Days Lag	Schedule MAL-42 Ln1 * 365	32.92	32.92	32.92	32.92	32.92	32.92	32.92	32.92	32.92	32.92	32.92	32.92	
24	Working Capital Requirement	[(22) * (23)] / 365	$509,215	$991,941	$1,552,106	$1,401,790	$966,430	$494,622	$285,517	$182,561	$144,988	$133,251	$139,390	$262,883	
25	Cost of Capital	Schedule MAL-1-GAS Pg 4	7.67%	7.67%	7.67%	7.67%	7.67%	7.67%	7.67%	7.67%	7.67%	7.67%	7.67%	7.67%	
26	Return on Working Capital Requirement	(24) * (25)	$39,057	$76,082	$119,046	$107,517	$74,125	$37,937	$21,899	$14,002	$11,121	$10,220	$10,691	$20,163	
27	Weighted Cost of Debt	Schedule MAL-1-GAS Pg 4	2.52%	2.52%	2.52%	2.52%	2.52%	2.52%	2.52%	2.52%	2.52%	2.52%	2.52%	2.52%	
28	Interest Expense	(24) * (27)	$12,832	$24,997	$39,113	$35,325	$24,354	$12,464	$7,195	$4,601	$3,654	$3,358	$3,513	$6,625	
29	Taxable Income	(26) - (28)	$26,225	$51,085	$79,933	$72,192	$49,771	$25,473	$14,704	$9,402	$7,467	$6,862	$7,179	$13,538	
30	1 - Combined Tax Rate	Dkt 4323	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	
31	Return and Tax Requirement	(29) / (30)	$40,345	$78,592	$122,975	$111,065	$76,571	$39,189	$22,622	$14,464	$11,487	$10,558	$11,044	$20,828	
32	**Variable Working Capital Requirement**	(28) + (31)	$53,178	$103,589	$162,088	$146,390	$100,925	$51,654	$29,817	$19,065	$15,141	$13,916	$14,557	$27,453	$737,771

National Grid - RI Gas
Gas Cost Recovery (GCR) Filing
Inventory Finance Estimate

Line No.	Description	Source	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Total
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
1	**Storage Inventory Balance**	Dk 4719	$9,436,055	$8,139,654	$6,127,822	$4,288,451	$2,610,887	$2,653,444	$3,877,029	$5,066,626	$5,878,226	$6,941,021	$8,623,396	$10,069,304	
2	Hedging														
3	Subtotal	(1) + (2)	$9,436,055	$8,139,654	$6,127,822	$4,288,451	$2,610,887	$2,653,444	$3,877,029	$5,066,626	$5,878,226	$6,941,021	$8,623,396	$10,069,304	
4	Cost of Capital	Schedule MAL-1-GAS Pg 4	7.67%	7.67%	7.67%	7.67%	7.67%	7.67%	7.67%	7.67%	7.67%	7.67%	7.67%	7.67%	
5	Return on Working Capital Requirement	(3) * (4)	$723,745	$624,311	$470,004	$328,924	$200,255	$203,519	$297,368	$388,610	$450,860	$532,376	$661,414	$772,316	$5,653,704
6	Weighted Cost of Debt	Schedule MAL-1-GAS Pg 4	2.52%	2.52%	2.52%	2.52%	2.52%	2.52%	2.52%	2.52%	2.52%	2.52%	2.52%	2.52%	
7	Interest Charges Financed	(3) * (6)	$237,789	$205,119	$154,421	$108,069	$65,794	$66,867	$97,701	$127,679	$148,131	$174,914	$217,310	$253,746	$1,857,540
8	Taxable Income	(5) - (7)	$485,957	$419,192	$315,583	$220,855	$134,461	$136,652	$199,667	$260,931	$302,729	$357,463	$444,105	$518,569	
9	1 - Combined Tax Rate		0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	
10	Return and Tax Requirement	(8) / (9)	$747,626	$644,911	$485,512	$339,777	$206,863	$210,234	$307,180	$401,433	$465,736	$549,942	$683,238	$797,799	$5,840,252
11	Working Capital Requirement	(7) + (10)	$985,414	$850,030	$639,933	$447,846	$272,657	$277,101	$404,881	$529,112	$613,868	$724,856	$900,548	$1,051,545	$7,697,792
12	Storage-Related Inventory Costs	(11) / 12	$82,118	$70,836	$53,328	$37,321	$22,721	$23,092	$33,740	$44,093	$51,156	$60,405	$75,046	$87,629	$641,483
13	**LNG Inventory Balance**	Dk 4719	$3,270,413	$3,192,464	$1,258,328	$519,480	$441,531	$1,081,591	$1,739,817	$2,380,668	$2,612,172	$2,737,694	$3,376,487	$3,500,813	
14	Cost of Capital	Schedule MAL-1-GAS Pg 4	7.67%	7.67%	7.67%	7.67%	7.67%	7.67%	7.67%	7.67%	7.67%	7.67%	7.67%	7.67%	
15	Return on Working Capital Requirement	(13) * (14)	$250,841	$244,862	$96,514	$39,844	$33,865	$82,958	$133,444	$182,597	$200,354	$209,981	$258,977	$268,512	$2,002,749
16	Weighted Cost of Debt	Schedule MAL-1-GAS Pg 4	2.52%	2.52%	2.52%	2.52%	2.52%	2.52%	2.52%	2.52%	2.52%	2.52%	2.52%	2.52%	
17	Interest Charges Financed	(13) * (16)	$82,414	$80,450	$31,710	$13,091	$11,127	$27,256	$43,843	$59,993	$65,827	$68,990	$85,087	$88,220	$658,009
18	Taxable Income	(15) - (17)	$168,426	$164,412	$64,804	$26,753	$22,739	$55,702	$89,601	$122,604	$134,527	$140,991	$173,889	$180,292	
19	1 - Combined Tax Rate		0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	
20	Return and Tax Requirement	(18) / (19)	$259,117	$252,941	$99,698	$41,159	$34,983	$85,695	$137,847	$188,622	$206,964	$216,910	$267,522	$277,372	$2,068,831
21	Working Capital Requirement	(17) + (20)	$341,532	$333,391	$131,408	$54,250	$46,109	$112,951	$181,690	$248,615	$272,791	$285,900	$352,609	$365,593	$2,726,840
22	LNG-Related Inventory Costs	(21) / 12	$28,461	$27,783	$10,951	$4,521	$3,842	$9,413	$15,141	$20,718	$22,733	$23,825	$29,384	$30,466	$227,237
23	Total Inventory Financing Costs	(12) + (22)	$110,579	$98,618	$64,278	$41,841	$26,564	$32,504	$48,881	$64,811	$73,888	$84,230	$104,430	$118,095	$868,719

National Grid - RI Gas
Summary of DAC Factors

Section 1: DAC factor (not including annual ISR component) September 1, 2018

Line No.	Description	Reference	Amount	Factor		
				Residential/ Small/ Medium C&I	**Large/ X-Large**	**Residential Low Income**
1	System Pressure (SP)	Dk 4708	$3,153,600	$0.0079	$0.0079	$0.0079
2	Advanced Gas Technology Program (AGT)	Dk 4708	$0	$0.0000	$0.0000	
3	Low Income Discount Recovery Factor (LIDRF)	Schedule PP-2	$3,189,293	$0.0083	$0.0083	
4	Environmental Response Cost Factor (ERCF)	Dk 4708	$967,642	$0.0024	$0.0024	$0.0024
5	Pension Adjustment Factor (PAF)	Dk 4708	($4,679,974)	($0.0118)	($0.0118)	($0.0118)
6	On-System Margin Credits (MC)	Dk 4708		$0.0000	$0.0000	$0.0000
7	Reconciliation Factor (R)	Dk 4708	($100,990)	$0.0000	($0.0011)	$0.0000
8	Service Quality Factor (SQP)	Dk 4708	$0	$0.0000	$0.0000	$0.0000
9	Earnings Sharing Mechanism (ESM)	Dk 4708	$0	$0.0000	$0.0000	$0.0000
10	Subtotal	Sum ([1]:[9])	$2,529,571	$0.0068	$0.0057	($0.0015)
11	Uncollectible Percentage	Schedule MAL-22 Pg 7 Line 15	2.08%	2.08%	2.08%	2.08%
12	DAC factors grossed up for uncollectible	[10]/(1-[11])	$2,583,303	$0.0069	$0.0058	($0.0015)
13	Revenue Decoupling Adjustment (RDA)	Dk 4708	$177,598	$0.0006	$0.0000	$0.0006
14	Revenue Decoupling Adjustment Reconciliation	Dk 4708	$298,047	$0.0010	$0.0000	$0.0010
15	DAC factor	[12]+[13]+[14]	$3,058,947	**$0.0085**	**$0.0058**	**$0.0001**

Section 2: DAC factors including annual ISR component

Line No.		ISR Reconciliation w/o uncollectible[1] (therms)	Uncollectible Percentage[2]	ISR Reconciliation* (therms) (A)	Base DAC Component*[3] (therms) (B)	DAC Component Subtotal Rates* (therms) (C) =(A) + (B)	ISR Component* (therms) (D)	Sep 1 2018 DAC Rates* (therms) (E) = (C)+(D)
16	Res-NH	$0.0465	2.08%	$0.0474	$0.0085	$0.0559		$0.0559
17	Res-NH-LI	$0.0465	2.08%	$0.0474	$0.0001	$0.0475		$0.0475
18	Res-H	$0.0202	2.08%	$0.0206	$0.0085	$0.0291		$0.0291
19	Res-H-LI	$0.0202	2.08%	$0.0206	$0.0001	$0.0207		$0.0207
20	Small	$0.0299	2.08%	$0.0305	$0.0085	$0.0390		$0.0390
21	Medium	$0.0195	2.08%	$0.0199	$0.0085	$0.0284		$0.0284
22	Large LL	$0.0161	2.08%	$0.0164	$0.0058	$0.0222		$0.0222
23	Large HL	$0.0120	2.08%	$0.0122	$0.0058	$0.0180		$0.0180
24	XL-LL	$0.0021	2.08%	$0.0021	$0.0058	$0.0079		$0.0079
25	XL-HL	$0.0006	2.08%	$0.0006	$0.0058	$0.0064		$0.0064

***Factors Include Uncollectible Allowance**

[1] Docket 4708

[2] Schedule MAL-22 Pg 7 Line 15

[3] Section 1, Line 15

	Current Energy Efficiency Factors				
		Reference	Residential	Commercial & Industrial	
1	Energy Efficiency Factor	Docket No. 4654	0.8600	0.7030	$/Dktherm
2	Uncollectible	Docket No. 4654	3.18%	3.18%	
3	Total Energy Efficiency Fact	Ln 1/(1-Ln 2)/10	$0.0888	$0.0726	$/Therm

	Proposed Energy Efficiency Factors				
			Res	C&I	
4	Energy Efficiency Factor	Ln 1	0.8600	0.7030	$/Dktherm
5	Uncollectible	Schedule MAL-22 Pg 7 Line 15	2.08%	2.08%	
6	Total Energy Efficiency Fact	Ln 4/(1-Ln 5)/10	$0.0878	$0.0717	$/Therm