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1 **Request IR-1:**

2
3 **Econometric Models Data, Appendix A**

- 4 **a. Please provide in electronic spreadsheet format all historic data used for the**
5 **econometric models.**
- 6 **b. Please provide in electronic spreadsheet format full information for constructing**
7 **model variables such as (but not limited to) AIDX and HDD.**
- 8 **c. Provide data sources and memos associated with developing the historic model**
9 **variables including but not limited to parameters such as electric space heat**
10 **fractions.**
- 11 **d. Provide the data sources and derivations for historic and future values of appliance**
12 **saturation, usage and life spans.**
- 13 **e. Provide complete data sources and documentation for all model drivers such as**
14 **population, household size, consumer goods, etc. as listed in Appendix C.**
- 15 **f. How is the Real Price Ratio (Oil/Elec) calculated? What units and relative**
16 **efficiencies are used?**
- 17 **g. How is the recovery of currently deferred amounts reflected in the future electricity**
18 **price assumptions.**

19
20 **Response IR-1:**

- 21
- 22 (a) Please refer to Attachment 1, filed electronically.
- 23
- 24 (b) Please refer to Attachment 2, filed electronically.
- 25
- 26 (c) Attachment 3, filed electronically, contains Nova Scotia space heat space heat saturation
27 from various sources, as well as heating system data collected from inspections in the
28 new home market.
- 29

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1 (d) Attachment 4, filed electronically, lists the appliance saturation data and average usage
2 estimates. Annual average usage estimates are based on Natural Resources Canada
3 Office of Energy Efficiency data for major appliances. The current edition of that
4 publication is: Energy Consumption of Major Household Appliances Shipped in Canada,
5 Summary Report – Trends for 1990–2009. It is available at:

6 <http://oee.nrcan.gc.ca/publications/statistics/cama11/index.cfm>

7
8 Annual usage for missing or unavailable years is interpolated and the system average use
9 for the stock of appliances is then estimated using a rolling vintage model. Lifespan
10 estimates are also based on information from Natural Resources Canada.

11
12 (e) Please refer to Attachment 5, filed electronically.

13
14 (f) The real price ratio is the comparison of oil to electricity price, in constant dollars (\$/MJ),
15 taxes in. The oil price with tax is divided by its heat content, 38.68 MJ /L. Electricity is
16 3.6 MJ/kWh. The electricity price to customers includes taxes and monthly base charge.
17 It is calculated as annual total residential revenue plus taxes, divided by annual kWh
18 sales.

19
20 The calculations are shown in Attachment 6, filed electronically, and result in a unitless
21 ratio of prices per GJ. No changes are assumed for oil burner efficiencies and thus are
22 not included in the calculation. The changes in the ratio due to price changes are
23 assumed indicative of consumers' choice of heating type.

24
25 (g) Estimates of price changes due to the currently deferred amounts related to FAM AA/BA
26 adjustments are included in the future electricity prices for the residential class. These
27 price changes will influence the model through the econometric equation as well as
28 through the space heat choice model.

Historic data used for the econometric models											
Variables for Domestic Model											
	DomEng	DomEng1	RRCGOODS	RREP	OIL	AIDX	CUSTHDD	RQTOS	HDD	RRYDS	RRTS
	Domestic Energy Sales	Lagged, Weather-Adj	Consumer Goods Sales	Electricity Price	¢ / Litre	Appliance Index	Customer# x HDD	NS GDP	Annual HDD	Disposable Income	Retail Sales
Year	GWh	GWh	constant\$	constant\$	constant\$			constant\$		constant\$	constant\$
1981	1951.8	1904.1	6564	11.58	48.1	1.620	912	15038	3976	13,594	6,273
1982	2035.2	1951.8	6434	10.80	53.5	1.641	1088	14964	4273	13,887	6,133
1983	2101.7	2035.2	6678	12.89	56.6	1.659	1040	15405	3887	13,859	6,602
1984	2308.0	2101.7	7225	12.42	57.0	1.708	1264	16274	4031	14,446	7,255
1985	2469.9	2308.0	7490	11.77	59.4	1.702	1670	16982	4395	15,071	7,866
1986	2657.0	2469.9	7596	11.30	47.0	1.748	2014	17495	4383	15,250	7,984
1987	2808.4	2657.0	7706	11.03	41.2	1.743	2317	17841	4281	15,732	8,409
1988	3066.8	2808.4	7918	10.26	40.2	1.797	2664	18320	4292	16,403	8,767
1989	3209.5	3066.8	7899	10.36	37.8	1.820	3043	18544	4400	17,035	8,631
1990	3357.8	3209.5	7832	10.27	43.3	1.841	2992	18778	3981	16,989	8,221
1991	3338.1	3357.8	7417	10.63	47.1	1.838	3220	18738	4047	16,581	7,313
1992	3499.3	3338.1	7450	10.80	43.7	1.841	3677	18820	4453	16,891	7,655
1993	3506.9	3457.5	7529	11.77	43.2	1.814	3709	18867	4377	17,076	7,933
1994	3498.3	3481.1	7554	11.90	40.2	1.799	3567	19069	4154	16,958	8,027
1995	3462.9	3519.4	7484	11.74	39.0	1.783	3587	19455	4152	17,085	7,845
1996	3564.6	3484.4	7552	12.02	43.9	1.767	3603	19490	4154	16,795	8,456
1997	3594.8	3585.7	7814	11.73	47.8	1.771	3735	20027	4283	17,070	8,625
1998	3524.4	3588.8	8061	11.72	41.1	1.750	3357	20772	3829	17,707	8,949
1999	3512.0	3610.9	8442	12.17	41.6	1.728	3229	21971	3606	18,250	9,354
2000	3672.1	3626.3	8647	11.68	60.2	1.696	3562	22729	3909	18,373	9,396
2001	3741.2	3738.8	8684	11.42	56.1	1.695	3671	23531	3911	18,651	9,556
2002	3828.9	3785.5	8917	11.11	52.2	1.669	3980	24509	4075	18,668	9,840
2003	4010.5	3858.4	9022	11.01	62.2	1.656	4163	24955	4146	18,561	9,685
2004	4113.5	3996.3	9146	10.78	65.0	1.638	4416	25250	4295	19,074	9,786
2005	4112.4	4060.1	9265	11.21	77.3	1.626	4159	25593	3936	19,384	9,731
2006	3979.4	4133.5	9422	11.55	79.6	1.599	3719	25774	3468	19,827	10,089
2007	4218.2	4108.4	9668	10.98	74.7	1.585	4630	26216	4151	20,357	10,326
2008	4231.9	4175.3	9983	11.20	91.8	1.535	4570	26582	4002	20,728	10,435
2009	4318.2	4221.8	10032	12.42	64.2	1.531	4921	26490	4207	21,243	10,458
2010	4216.2	4282.0	10178	11.55	72.1	1.517	4236	27046	3532	21,705	10,703
2011	4346.1	4356.2	10086	11.48	86.9	1.497	4654	27460	3710	21,311	10,704
2012			10310	12.53	86.9	1.479	5001	27949	3,960	21,513	10,934
2013			10418	13.48	83.2	1.461	5126	28655	3,960	21,721	11,069
2014			10501	13.32	93.1	1.445	5228	29125	3,960	21,893	11,174
2015			10573	13.05	97.1	1.431	5331	29565	3,960	22,073	11,260
2016			10613	12.95	98.1	1.417	5447	29887	3,960	22,220	11,317
2017			10661	13.00	98.1	1.406	5567	30243	3,960	22,352	11,398
2018			10725	13.38	99.0	1.395	5687	30674	3,960	22,501	11,496
2019			10791	13.13	99.7	1.387	5806	31174	3,960	22,655	11,590
2020			10827	13.17	100.2	1.379	5925	31626	3,960	22,779	11,655
2021			10835	13.22	101.2	1.373	6046	32046	3,960	22,871	11,685
2022			10802	13.27	101.6	1.367	6161	32297	3,960	22,920	11,677

Historic data used for the econometric models													
Variables for Commercial Model													
	ComEng	ComEngWA	RQTOS	RQSRS	DomEng	DomEngWA	RCEP	RRTS	RRCGOODS	RRYDS	HDD	RRINRBS	RPCPIS
	Commercial Energy	Commercial Weather-Adj	NS GDP	NS GDP for Services	Residential Energy	Residential weather-Adj	Commercial Avg Elec Price	Retail Sales	Consumer Goods Sales	Disposable Income	Annual HDD	Nominal Domestic Product: Business Non-Residential Investment Spend	Consumer Price Index, NS (2002=1.0)
Year	GWh	GWh	Constant \$M	Constant \$M	GWh	GWh	¢ / kWh	Constant \$M	constant\$	constant\$		constant\$	
1981	1751.8	1757.5	15,038	11,098	1951.8	1951.8	12.17	6,273	6,564	13,594	3976	1140	0.51
1982	1781.8	1784.2	14,964	11,161	2035.2	2035.2	11.14	6,133	6,434	13,887	4273	1411	0.56
1983	1811.5	1836.1	15,405	11,373	2101.7	2101.7	10.83	6,602	6,678	13,859	3887	1892	0.59
1984	1881.9	1890.5	16,274	11,877	2308.0	2308.0	13.15	7,255	7,225	14,446	4031	1699	0.62
1985	1992.5	1988.6	16,982	12,469	2469.9	2469.9	12.67	7,866	7,490	15,071	4395	1488	0.64
1986	2064.5	2049.6	17,495	12,849	2657.0	2657.0	12.25	7,984	7,596	15,250	4383	1148	0.67
1987	2183.3	2179.1	17,841	13,255	2808.4	2808.4	11.79	8,409	7,706	15,732	4281	868	0.69
1988	2,326.3	2322.9	18,320	13,719	3066.8	3066.8	11.18	8,767	7,918	16,403	4292	1001	0.71
1989	2,454.4	2453.0	18,544	13,914	3209.5	3209.5	11.13	8,631	7,899	17,035	4400	1068	0.74
1990	2,541.2	2538.4	18,778	14,067	3357.8	3357.8	10.83	8,221	7,832	16,989	3981	1151	0.78
1991	2,543.9	2559.3	18,738	14,028	3338.1	3338.1	11.51	7,313	7,417	16,581	4047	1062	0.83
1992	2,617.9	2602.1	18,820	14,243	3499.3	3457.5	11.54	7,655	7,450	16,891	4453	802	0.83
1993	2,638.3	2624.8	18,867	14,413	3506.9	3481.1	11.82	7,933	7,529	17,076	4377	578	0.85
1994	2,660.2	2,665.6	19,069	14,565	3498.3	3519.4	11.95	8,027	7,554	16,958	4154	486	0.85
1995	2,676.0	2,681.5	19,455	14,800	3462.9	3484.4	11.79	7,845	7,484	17,085	4152	577	0.87
1996	2,712.9	2,718.3	19,490	14,853	3564.6	3585.7	11.46	8,456	7,552	16,795	4154	631	0.88
1997	2,725.3	2,723.7	20,027	15,252	3594.8	3588.8	10.36	8,625	7,814	17,070	4283	636	0.90
1998	2,702.4	2,724.9	20,772	15,713	3524.4	3610.9	10.33	8,949	8,061	17,707	3829	1812	0.91
1999	2,766.8	2,796.5	21,971	16,464	3512.0	3626.3	10.70	9,354	8,442	18,250	3606	2398	0.92
2000	2,829.4	2,846.7	22,729	16,954	3672.1	3738.8	10.30	9,396	8,647	18,373	3909	1429	0.95
2001	2,959.3	2,970.8	23,531	17,482	3741.2	3785.5	10.12	9,556	8,684	18,651	3911	1509	0.97
2002	2,996.5	3,004.1	24,509	18,129	3828.9	3858.4	9.80	9,840	8,917	18,668	4075	1379	1.00
2003	3,090.6	3,087.8	24,955	18,530	4010.5	3996.3	9.69	9,685	9,022	18,561	4146	1357	1.03
2004	3,187.8	3,177.1	25,250	18,785	4113.5	4060.1	9.38	9,786	9,146	19,074	4295	1298	1.05
2005	3,225.1	3,239.5	25,593	19,159	4112.4	4133.5	9.41	9,731	9,265	19,384	3936	1070	1.08
2006	3,210.8	3,244.2	25,774	19,712	3979.4	4108.4	9.76	10,089	9,422	19,827	3468	1047	1.10
2007	3,342.9	3,331.8	26,216	20,123	4218.2	4175.3	8.73	10,326	9,668	20,357	4151	920	1.12
2008	3,326.9	3,327.3	26,582	20,591	4231.9	4221.8	9.56	10,435	9,983	20,728	4002	966	1.16
2009	3,320.4	3,311.0	26,490	20,822	4318.2	4282.0	10.48	10,458	10,032	21,243	4207	1193	1.16
2010	3,305.3	3,328.1	27,046	21,286	4216.2	4356.2	10.56	10,703	10,178	21,705	3532	1099	1.18
2011	3,309.6	3,338.6	27,460	21,548	4353.5	4411.9	10.75	10,704	10,086	21,311	3710	1075	1.23
2012			27,949	21,888	4444.4	4444.4	11.81	10,934	10,310	21,513	3,960	1153	1.25
2013			28,655	22,278	4456.5	4456.5	11.81	11,069	10,418	21,721	3,960	1241	1.28
2014			29,125	22,627	4496.8	4496.8	11.81	11,174	10,501	21,893	3,960	1109	1.31
2015			29,565	22,959	4555.0	4555.0	11.81	11,260	10,573	22,073	3,960	1098	1.33
2016			29,887	23,229	4616.7	4616.7	11.81	11,317	10,613	22,220	3,960	1136	1.36
2017			30,243	23,525	4675.7	4675.7	11.81	11,398	10,661	22,352	3,960	1070	1.39
2018			30,674	23,829	4722.0	4722.0	11.81	11,496	10,725	22,501	3,960	1036	1.42
2019			31,174	24,156	4788.4	4788.4	11.81	11,590	10,791	22,655	3,960	1024	1.45
2020			31,626	24,476	4850.6	4850.6	11.81	11,655	10,827	22,779	3,960	1052	1.48
2021			32,046	24,779	4908.8	4908.8	11.81	11,685	10,835	22,871	3,960	1067	1.51
2022			32,297	25,031	4959.6	4959.6	11.81	11,677	10,802	22,920	3,960	1083	1.54

Historic data used for the econometric models							
Variables for Industrial Models							
	SMIND	MEDIND	RQTOS	RRINRBS	RQMANS	RLEMMANS	RKMES
	Small Ind. Energy	Medium Ind. Energy	NS GDP	Business Non- Residential Investment Spend	Real Domestic Product: Manufacturing	Employment, Manufacturing	Capital Stock, Machinery & Equipment, Private & Public
Year	GWh	GWh	Constant \$M	constant\$	(Chained \$M 2002)	('000s)	(\$M 2002)
1981	74.0	355.7	15,037.8	1,139.8	1,783.4	42.9	7,036
1982	75.3	356.0	14,963.7	1,411.0	1,541.1	41.7	7,677
1983	84.4	371.9	15,405.1	1,892.4	1,592.6	39.4	8,131
1984	93.5	379.2	16,274.1	1,699.1	1,880.1	40.8	8,334
1985	100.8	371.0	16,982.1	1,488.0	1,860.5	40.6	8,401
1986	107.4	352.0	17,494.7	1,147.8	1,872.3	43.2	8,547
1987	122.7	365.0	17,840.9	868.3	1,872.6	43.3	8,761
1988	129.3	399.9	18,319.8	1,000.6	1,798.4	46.7	9,198
1989	137.1	410.7	18,544.5	1,067.9	1,849.3	47.2	9,875
1990	142.1	399.3	18,778.5	1,151.3	1,780.4	43.3	10,291
1991	142.7	394.9	18,738.4	1,062.2	1,942.6	42.5	10,535
1992	140.9	388.0	18,820.1	801.7	1,928.4	39.3	10,482
1993	136.5	381.3	18,867.2	578.4	1,916.9	36.7	10,477
1994	139.3	389.0	19,069.3	486.5	1,904.1	36.1	10,661
1995	147.5	382.1	19,455.4	576.5	2,047.9	40.3	10,599
1996	153.0	377.9	19,490.0	630.6	2,044.4	37.0	10,607
1997	168.4	400.8	20,026.8	636.1	2,153.8	37.1	11,378
1998	192.5	414.1	20,771.9	1,811.8	2,216.3	41.1	11,500
1999	216.1	453.9	21,970.7	2,397.9	2,412.0	44.1	11,823
2000	213.9	489.6	22,729.3	1,429.5	2,407.6	42.0	12,197
2001	222.4	517.9	23,530.7	1,509.0	2,420.7	42.1	12,471
2002	234.1	531.4	24,509.2	1,379.3	2,662.4	43.5	12,998
2003	238.3	557.6	24,954.7	1,356.9	2,629.3	44.1	13,166
2004	239.2	567.4	25,250.2	1,298.0	2,848.0	43.5	13,161
2005	241.1	557.1	25,592.5	1,069.6	2,822.1	40.3	13,401
2006	239.9	567.3	25,774.4	1,047.2	2,569.2	39.2	13,681
2007	248.1	568.0	26,215.5	919.9	2,554.1	41.3	14,274
2008	254.5	539.4	26,582.3	966.3	2,503.9	38.8	14,247
2009	252.6	492.0	26,490.4	1,192.8	2,366.9	33.1	13,874
2010	254.4	494.9	27,046.4	1,098.7	2,521.4	32.7	13,632
2011	253.3	491.8	27,460.2	1,075.4	2,610.3	32.9	14,260
2012			27,948.7	1,153.0	2,657.4	33.0	14,589
2013			28,655.3	1,240.6	2,851.9	33.7	14,901
2014			29,125.5	1,109.4	2,964.1	34.6	15,277
2015			29,565.3	1,097.5	3,056.9	35.1	15,666
2016			29,887.5	1,136.3	3,074.3	34.8	16,100
2017			30,242.9	1,069.6	3,162.6	35.5	16,583
2018			30,673.5	1,036.1	3,305.6	36.8	17,086
2019			31,174.3	1,024.1	3,517.1	38.8	17,641
2020			31,626.3	1,051.9	3,624.5	39.7	18,205
2021			32,046.3	1,067.1	3,622.3	39.3	18,774
2022			32,296.7	1,082.6	3,575.5	38.4	19,355

Synapse IR-001
 information for constructing model variables such as (but not limited to) AIDX and HDD.

Appliance Index Per Unitized		
Year	1967 = 1.000 (AIDX)	All-appliance Composite
1967	1.000	39.181
1968	1.029	40.318
1969	1.105	43.280
1970	1.161	45.502
1971	1.154	45.224
1972	1.210	47.421
1973	1.293	50.668
1974	1.356	53.127
1975	1.430	56.031
1976	1.498	58.692
1977	1.512	59.240
1978	1.523	59.673
1979	1.565	61.306
1980	1.616	63.326
1981	1.620	63.486
1982	1.641	64.308
1983	1.656	64.896
1984	1.703	66.713
1985	1.694	66.374
1986	1.739	68.144
1987	1.736	68.005
1988	1.788	70.054
1989	1.813	71.021
1990	1.832	71.791
1991	1.838	72.005
1992	1.841	72.117
1993	1.814	71.063
1994	1.799	70.493
1995	1.783	69.859
1996	1.767	69.225
1997	1.771	69.386
1998	1.750	68.557
1999	1.728	67.700
2000	1.696	66.432
2001	1.695	66.410
2002	1.669	65.379
2003	1.656	64.893
2004	1.638	64.191
2005	1.626	63.701
2006	1.599	62.636
2007	1.585	62.088
2008	1.535	60.142
2009	1.531	59.983
2010	1.517	59.438
2011	1.497	58.640
2012	1.479	57.936
2013	1.461	57.258
2014	1.445	56.636
2015	1.431	56.061
2016	1.417	55.536
2017	1.406	55.071
2018	1.395	54.670
2019	1.387	54.327
2020	1.379	54.033
2021	1.373	53.779
2022	1.367	53.561

SAU * SATN / 10000								
DISH WASHERS	ELEC RANGES	CLOTHES WASHERS	CLOTHES DRYERS	FREEZERS	REFIGER.	TVs	Water Heaters	
0.200	3.696	2.551	2.153	1.772	8.549	2.315	17.945	
0.259	3.684	2.895	2.569	2.022	9.140	2.383	17.366	
0.257	4.078	3.906	3.076	2.235	10.015	2.526	17.185	
0.380	4.335	4.209	3.639	2.619	10.598	2.753	16.968	
0.444	4.421	3.805	3.309	2.911	11.109	2.945	16.281	
0.522	4.624	4.582	3.745	3.029	11.955	3.044	15.919	
0.617	4.928	5.342	4.607	3.466	12.681	3.505	15.521	
0.767	5.260	5.819	4.499	3.744	13.310	3.809	15.919	
0.973	5.518	6.440	5.091	4.021	13.762	3.945	16.281	
1.102	5.790	6.653	5.556	4.351	14.323	4.166	16.751	
1.259	5.831	6.940	6.072	4.336	14.534	4.168	16.100	
1.417	6.086	7.135	6.256	4.309	14.752	4.162	15.557	
1.608	6.137	7.281	6.403	4.797	15.156	4.186	15.738	
1.803	6.072	7.928	7.048	4.830	15.476	4.249	15.919	
1.854	6.247	8.043	6.965	4.877	15.626	4.135	15.738	
2.146	6.311	8.064	7.016	5.113	15.852	4.176	15.630	
2.251	6.462	8.234	7.120	5.015	15.771	4.162	15.882	
2.497	6.539	8.680	7.484	5.156	15.909	4.196	16.253	
2.348	6.535	8.436	7.457	5.158	15.583	4.160	16.696	
2.567	6.776	8.734	7.582	5.175	15.702	4.143	17.464	
2.619	6.785	8.537	7.780	5.220	15.315	4.105	17.644	
3.038	6.849	8.890	7.755	5.130	15.276	4.223	18.892	
3.049	6.840	9.032	7.912	5.215	15.158	4.192	19.623	
3.087	6.829	9.166	8.051	5.243	15.017	4.188	20.210	
3.302	6.957	9.060	8.058	5.132	14.924	4.253	20.318	
3.338	7.008	9.212	8.249	5.061	14.510	4.333	20.405	
3.389	6.982	9.158	8.263	4.951	14.290	4.380	19.648	
3.351	6.961	9.127	8.363	4.862	13.913	4.405	19.510	
3.290	7.040	9.170	8.311	4.684	13.641	4.371	19.352	
3.394	7.085	9.199	8.269	4.563	13.321	4.407	18.988	
3.403	7.107	9.470	8.350	4.533	12.975	4.717	18.831	
3.514	7.059	9.293	8.291	4.378	12.540	5.043	18.438	
3.562	7.171	9.197	8.395	4.186	12.243	5.018	17.926	
3.373	7.060	8.754	8.058	4.159	11.929	5.198	17.901	
3.502	7.196	8.776	8.335	4.069	11.481	5.167	17.885	
3.283	7.085	8.486	8.083	3.952	11.189	5.336	17.965	
3.436	7.163	8.284	7.953	3.758	10.863	5.406	18.031	
3.288	7.069	8.077	8.019	3.651	10.522	5.486	18.080	
3.307	7.001	7.741	8.067	3.557	10.144	5.580	18.304	
3.088	6.963	7.283	7.909	3.392	9.716	5.740	18.545	
3.002	6.802	6.988	8.011	3.353	9.407	5.763	18.762	
2.857	6.677	6.602	7.794	3.109	8.467	5.645	18.991	
2.807	6.596	6.207	7.930	3.099	8.658	5.572	19.113	
2.705	6.480	5.895	7.964	3.031	8.339	5.731	19.293	
2.601	6.365	5.574	7.947	2.944	8.064	5.748	19.398	
2.503	6.250	5.272	7.934	2.863	7.808	5.763	19.543	
2.410	6.134	4.989	7.925	2.787	7.571	5.775	19.666	
2.322	6.018	4.729	7.922	2.718	7.352	5.786	19.789	
2.240	5.903	4.491	7.924	2.655	7.152	5.796	19.901	
2.164	5.788	4.276	7.932	2.598	6.968	5.804	20.006	
2.097	5.675	4.087	7.945	2.545	6.800	5.811	20.112	
2.038	5.564	3.922	7.963	2.498	6.649	5.816	20.221	
1.990	5.455	3.781	7.985	2.455	6.512	5.820	20.329	
1.953	5.350	3.665	8.009	2.416	6.391	5.822	20.429	
1.925	5.249	3.570	8.035	2.381	6.282	5.823	20.514	
1.906	5.152	3.495	8.061	2.350	6.186	5.823	20.588	

NS Appliance Saturation (%)								
DISH WASHERS	ELEC RANGES	CLOTHES WASHERS	CLOTHES DRYERS	FREEZERS	REFIGER.	TVs	Water Heaters	
1.7	45.6	16.7	17.2	16.1	93.9	105.0	49.6	
2.2	45.4	18.9	20.5	18.4	95.1	106.0	48.0	
2.1	50.3	25.5	24.6	20.3	97.3	108.6	47.5	
3.2	53.4	27.5	29.1	23.8	97.4	112.2	46.9	
3.7	54.5	24.9	26.5	26.5	96.8	111.1	45.0	
4.4	57.0	30.0	30.0	27.5	97.6	112.0	44.0	
5.1	60.8	35.1	36.9	31.8	98.1	117.3	42.9	
6.4	64.8	38.4	36.1	34.7	98.6	119.6	44.0	
8.1	68.0	42.8	41.0	37.8	98.7	120.5	45.0	
9.3	71.4	44.5	44.9	41.9	99.6	127.4	46.3	
10.6	71.9	46.8	49.4	42.1	99.2	127.2	44.5	
12.0	75.1	48.6	51.0	42.3	99.2	127.8	43.0	
13.7	75.8	50.0	52.4	49.2	100.7	130.7	43.5	
15.4	75.1	55.3	58.1	50.2	102.2	134.4	44.0	
16.0	77.4	56.8	57.6	51.8	103.8	134.2	43.5	
18.6	78.3	57.4	58.2	55.5	105.3	138.4	43.2	
19.6	80.4	59.3	59.3	54.8	105.2	141.9	43.9	
21.9	81.5	63.4	62.7	57.5	106.9	146.2	44.9	
20.7	81.7	62.0	62.7	58.3	105.3	147.0	46.2	
22.9	85.0	65.0	64.1	59.5	107.2	149.0	48.4	
23.6	85.3	64.2	66.1	61.0	105.5	149.2	48.9	
27.8	86.4	67.6	66.3	61.2	106.3	154.4	52.5	
28.4	86.6	69.4	67.9	62.9	106.6	153.8	54.7	
28.9	86.7	71.1	69.5	64.9	106.9	153.1	56.5	
31.3	88.7	70.9	69.9	64.0	107.7	155.2	56.9	
32.0	89.7	73.0	72.0	64.1	106.1	157.5	57.3	
33.0	89.7	73.5	72.5	64.3	107.5	158.3	55.3	
33.1	89.8	74.4	73.8	65.1	108.1	159.0	55.0	
33.0	91.3	76.2	73.7	64.0	110.0	157.8	54.8	
35.0	92.4	78.0	73.7	64.1	111.2	159.1	53.9	
36.5	92.9	82.5	75.9	66.1	112.4	170.2	53.7	
39.6	92.5	82.3	76.4	65.2	111.7	182.0	52.8	
41.8	94.3	83.3	78.7	63.7	113.7	181.4	51.5	
40.2	93.1	80.3	76.0	65.4	114.7	188.2	51.7	
43.7	95.3	82.7	80.0	65.6	113.3	187.4	52.0	
41.8	94.2	81.7	78.3	65.4	114.9	194.0	52.5	
45.8	95.7	81.5	77.8	63.2	115.1	197.0	53.0	
45.6	95.4	83.5	79.4	63.8	116.6	200.4	53.5	
49.0	95.7	83.7	80.8	64.6	117.0	204.4	54.5	
47.2	97.0	81.9	80.0	63.2	116.0	210.9	55.5	
49.1	96.3	83.5	82.0	65.3	117.3	212.4	56.4	
49.1	96.3	83.6	80.9	63.7	118.0	208.7	57.4	
51.6	97.1	82.9	82.5	64.0	115.6	206.7	58.1	
52.4	97.3	84.2	83.6	64.9	115.4	213.5	58.9	
52.9	97.5	84.7	84.0	65.0	115.7	215.0	59.5	
53.4	97.7	85.2	84.5	65.1	115.9	216.4	60.2	
53.9	97.9	85.6	84.9	65.1	116.2	217.8	60.8	
54.3	98.0	86.1	85.3	65.2	116.5	219.2	61.5	
54.7	98.2	86.5	85.7	65.3	116.7	220.5	62.2	
55.1	98.3	86.9	86.1	65.3	116.9	221.7	62.8	
55.4	98.5	87.3	86.5	65.4	117.2	222.9	63.5	
55.7	98.6	87.6	86.8	65.5	117.4	224.1	64.1	
56.1	98.7	88.0	87.2	65.5	117.6	225.2	64.8	
56.3	98.8	88.3	87.5	65.5	117.9	226.3	65.4	
56.6	98.9	88.6	87.8	65.6	118.1	227.4	66.1	
56.8	99.0	89.0	88.1	65.6	118.3	228.4	66.6	

Appliance System Average Use (SAU) (weighted by vintage efficiency)											
DISH WASHERS	ELEC RANGES	CLOTHES WASHERS	CLOTHES DRYERS	FREEZERS	REFIGER.						

Information for constructing model variables such as (but not limited to) AIDX and HDD.

Year	Customer-HDD CHDD	NSP All Electric # Customers	Annual HDD 18°C	CUST x HDD / 10,000	estimated efficiency Improvement	nominal Avg Use New Units	estimated System Avg Use	estimated new SH cust % improvement
1970	-	0	4357	0.0	0.000000			
1971	172.3	4,075	4228	172.3	0.000000			
1972	304.1	6,657	4569	304.1	0.000000			
1973	231.1	5,592	4133	231.1	0.000000			
1974	334.3	7,581	4410	334.3	0.000000			
1975	539.6	12,600	4283	539.6	0.000000			
1976	837.8	20,169	4154	837.8	0.000000			
1977	922.7	22,253	4146	922.7	0.000000			
1978	949.9	21,363	4447	949.9	0.000000			
1979	995.6	24,528	4059	995.6	0.000000			
1980	1,100.1	24,528	4485	1100.1	0.000000			
1981	911.9	22,934	3976	911.9	0.000000			
1982	1,088.0	25,464	4273	1088.0	0.000000			
1983	1,039.9	26,754	3887	1039.9	0.000000			
1984	1,263.6	31,351	4031	1263.6	0.000000			
1985	1,670.1	38,005	4395	1670.1	0.000000			
1986	2,014.3	45,961	4383	2014.3	0.000000			
1987	2,316.6	54,111	4281	2316.6	0.000000			
1988	2,664.4	62,076	4292	2664.4	0.000000			
1989	3,043.2	69,171	4400	3043.2	0.000000			
1990	2,992.1	75,157	3981	2992.1	0.000000			
1991	3,219.6	79,559	4047	3219.6	0.000000			
1992	3,677.5	82,580	4453	3677.5	0.000000			
1993	3,709.2	84,745	4377	3709.2	0.000000	10,000.0	10,200.0	0.100
1994	3,567.5	85,906	4154	3568.5	-0.000278	9,990.0	10,197.2	0.100
1995	3,586.9	86,402	4152	3587.3	-0.000122	9,980.0	10,195.9	0.100
1996	3,603.2	86,754	4154	3603.5	-0.000090	9,970.0	10,195.0	0.100
1997	3,734.7	87,210	4283	3735.2	-0.000120	9,960.1	10,193.8	0.100
1998	3,356.8	87,687	3829	3357.3	-0.000130	9,950.1	10,192.4	0.100
1999	3,229.2	89,587	3606	3230.9	-0.000525	9,940.1	10,187.1	0.100
2000	3,562.0	91,159	3909	3563.5	-0.000435	9,930.2	10,182.7	0.100
2001	3,671.4	93,950	3911	3674.2	-0.000765	9,920.3	10,174.9	0.100
2002	3,980.2	97,761	4075	3984.2	-0.001013	9,910.4	10,164.6	0.100
2003	4,162.8	100,485	4146	4165.7	-0.000704	9,900.4	10,157.4	0.100
2004	4,416.1	102,871	4295	4418.8	-0.000609	9,890.5	10,151.2	0.100
2005	4,158.6	105,735	3936	4161.6	-0.000722	9,880.7	10,143.9	0.100
2006	3,719.2	108,784	3422	3722.0	-0.000755	9,870.8	10,136.2	0.100
2007	4,630.1	111,863	4142	4633.6	-0.000748	9,860.9	10,128.6	0.100
2008	4,569.7	114,605	3990	4572.7	-0.000656	9,851.0	10,122.0	0.100
2009	4,920.8	117,522	4190	4924.2	-0.000689	9,841.2	10,115.0	0.100
2010	4,235.7	119,992	3532	4238.2	-0.000577	9,831.4	10,109.2	0.100
2011	4,654.0	122,844	3791	4657.1	-0.000661	9,821.5	10,102.5	0.100
2012	5,000.7	126,370	3960	5004.7	-0.000803	9,811.7	10,094.4	0.100
2013	5,125.8	129,518	3960	5129.4	-0.000704	9,801.9	10,087.3	0.100
2014	5,228.5	132,095	3960	5231.4	-0.000571	9,792.1	10,081.5	0.100
2015	5,330.6	134,675	3960	5333.6	-0.000569	9,782.3	10,075.8	0.100
2016	5,446.9	137,624	3960	5450.4	-0.000645	9,772.5	10,069.3	0.100
2017	5,567.0	140,661	3960	5570.7	-0.000657	9,762.7	10,062.7	0.100
2018	5,687.4	143,701	3960	5691.1	-0.000651	9,753.0	10,056.1	0.100
2019	5,805.8	146,691	3960	5809.5	-0.000634	9,743.2	10,049.8	0.100
2020	5,925.2	149,707	3960	5929.0	-0.000634	9,733.5	10,043.4	0.100
2021	6,046.1	152,764	3960	6050.0	-0.000637	9,723.7	10,037.0	0.100
2022	6,161.4	155,670	3960	6165.1	-0.000601	9,714.0	10,031.0	0.100

Heating Degree-Days, below 18°C														
Environment Canada Weather Stations														
Climate ID:			8205090 Shearwater Airport			Latitude: 44°38'00.0			Longitude: 63°30'00.000" W					
Climate ID:			8205091 Shearwater Auto			Latitude: 44°38'11.0			Longitude: 63°30'24.000" W					
Climate ID:			8205092 Shearwater RCS			Latitude: 44°37'47.0			Longitude: 63°30'48.000" W					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	
1981	768	529	538	395	263	120	34	39	100	278	400	514	3,976	
1982	780	647	601	433	291	166	27	58	97	279	357	540	4,273	
1983	633	614	544	387	267	94	18	22	66	246	387	610	3,887	
1984	699	544	609	411	273	121	18	6	123	272	401	552	4,031	
1985	780	623	609	439	273	135	18	37	91	278	441	672	4,395	
1986	654	657	599	379	292	152	58	42	156	313	476	607	4,383	
1987	707	669	605	385	281	119	22	38	101	260	463	631	4,281	
1988	689	632	582	426	261	160	38	26	142	300	390	649	4,292	
1989	682	650	643	414	211	97	32	32	99	299	436	805	4,400	
1990	614	660	601	409	308	100	21	13	101	217	405	534	3,981	
1991	750	592	538	421	251	115	24	19	119	229	360	628	4,047	
1992	734	667	653	474	290	98	66	20	100	288	459	605	4,453	
1993	745	730	617	418	256	143	49	17	93	320	420	569	4,377	
1994	793	681	572	364	283	89	11	21	115	257	379	589	4,154	
1995	618	651	593	429	305	101	24	36	130	195	419	651	4,152	
1996	733	618	596	411	309	122	47	11	84	296	429	498	4,154	
1997	693	611	645	449	284	126	15	22	89	306	433	610	4,283	
1998	641	549	532	375	211	142	24	13	83	272	431	557	3,829	
1999	660	557	473	399	199	63	8	10	35	286	373	542	3,606	
2000	667	606	507	379	278	104	26	8	109	230	370	625	3,909	
2001	705	646	577	434	235	86	47	4	73	200	382	521	3,911	
2002	628	601	556	403	275	155	41	9	76	305	418	609	4,075	
2003	756	677	610	459	300	104	13	24	52	228	378	545	4,146	
2004	831	648	603	403	291	134	36	15	107	226	426	576	4,295	
2005	775	602	573	396	310	105	23	5	45	193	350	558	3,936	
2006	564	595	518	355	209	84	6	23	59	222	329	504	3,468	
2007	654	655	566	423	272	111	35	54	87	217	420	658	4,151	
2008	634	600	608	380	280	128	19	28	105	257	402	561	4,002	
2009	741	596	578	385	267	140	78	33	118	313	358	601	4,207	
2010	652	564	479	333	215	118	4	4	63	236	376	486	3,532	
2011	642	598	548	382	261	138	23	11	65	204	349	570	3,791	
													10-year Average	3,960.4

Data sources and memos associated with developing the historic model variables including but not limited to parameters such as electric space heat fractions.

Statistics Canada - NS				NSPI
Principal Heating Fuel - Electricity			Corporate Research Assoc. Survey	Online Advisory Panel
Year	StatsCan Sat%	Year	% Electric Heating	% Electric Heat
1982	9.1%	1982		
1983	10.0%	1983		
1984	11.0%	1984		
1985	12.7%	1985		
1986	15.0%	1986		
1987	17.6%	1987		
1988	20.0%	1988		
1989	21.0%	1989		
1990	23.3%	1990		
1991	25.5%	1991		
1992	25.5%	1992		
1993	24.1%	1993		
1994	22.3%	1994		
1995	24.6%	1995		
1996	25.2%	1996		
1997	23.6%	1997		
1998	24.8%	1998		
1999	25.9%	1999		
2000	24.5%	2000		
2001	25.3%	2001	23.1%	
2002	25.9%	2002	21.8%	
2003	27.1%	2003	25.8%	
2004	25.9%	2004	26.6%	
2005	23.1%	2005	25.3%	
2006	25.2%	2006	27.2%	
2007	25.9%	2007	29.0%	
2008	23.5%	2008	29.0%	
2009	26.5%	2009	27.0%	37%
2010		2010	29.3%	
2011		2011		
2012		2012		

**New Home Construction
Electric Market Share**

New Home Construction Residential - Space Heat Market Share				
	Oil	Natural Gas	Other	Total Electric
2006	30%	1%	3%	66%
2007	19%	3%	3%	75%
2008	13%	2%	3%	81%
2009	9%	3%	4%	84%
2010	9%	4%	4%	84%
2011	6%	4%	3%	87%

Average Halifax Retail Price
Household Heating Oil, Cents per litre

Month	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Jan	29.6	46.0	36.5	36.5	36.5	33.4	35.7	44.8	40.4	33.9	49.0	59.2	45.7	62.8	62.6	74.6	88.8	78.0	99.3	77.3	86.3	95.4
Feb	31.5	43.0	36.5	36.5	36.5	33.4	36.4	44.8	39.3	33.9	60.5	57.8	47.1	71.0	63.7	75.8	88.4	79.1	98.3	71.8	83.2	99.2
Mar	32.1	39.9	36.5	36.5	33.3	34.4	36.7	42.6	36.9	32.0	57.0	56.4	49.4	79.2	62.6	80.4	85.4	81.5	100.7	68.0	83.2	107.7
Apr	32.1	34.9	36.5	36.5	33.3	34.4	36.7	45.0	36.8	37.3	50.9	56.3	53.2	70.4	63.6	81.9	90.0	83.6	110.9	74.6	84.6	111.7
May	32.1	34.9	36.5	36.5	33.3	34.4	37.3	43.1	36.8	36.6	50.9	56.7	53.2	57.8	68.4	81.5	95.0	83.6	116.8	71.1	84.6	108.9
Jun	32.1	34.9	36.5	36.5	33.3	34.4	37.3	43.1	36.8	36.6	50.9	56.7	53.2	57.8	68.4	81.5	95.0	83.6	116.8	71.1	84.6	108.9
Jul	32.1	34.9	36.5	36.5	33.3	34.4	37.3	43.1	36.8	36.6	50.9	56.7	53.2	57.8	68.4	81.5	94.1	83.6	116.8	71.1	84.6	108.9
Aug	32.1	34.9	36.5	36.5	33.3	34.4	37.3	43.1	36.8	39.2	50.9	56.7	53.2	57.8	68.4	81.5	94.1	83.6	116.8	71.1	84.6	108.9
Sep	32.1	34.9	36.5	36.5	33.3	34.4	38.2	41.2	36.8	42.8	60.1	53.2	56.6	54.7	70.4	92.7	89.2	83.7	117.9	77.2	84.6	106.5
Oct	32.1	34.9	36.5	36.5	33.3	33.4	41.0	40.9	36.2	44.3	62.0	51.3	57.8	54.7	71.9	96.1	80.9	83.7	109.1	73.9	86.0	106.0
Nov	39.0	36.5	36.5	36.5	33.3	33.4	43.2	40.9	34.7	44.9	62.4	49.0	58.9	54.7	78.5	91.9	78.6	88.2	89.7	82.5	87.0	107.2
Dec	43.0	36.5	36.5	36.5	33.3	33.5	44.6	40.9	34.3	48.2	67.5	46.3	58.2	58.3	74.6	84.2	75.5	96.0	83.0	82.5	90.2	111.2

Statistics Canada - Table 326-0009: Average retail prices for gasoline and fuel oil

DOMESTIC APPLIANCE SATURATION RATE HISTORY & forecasts
Percentage of Total NS customers owning equipment

BASE CASE FORECAST
YEAR

FITTED VALUES

Dryers

ALL MODELS NOW versus TIME rather than PDI						
60.00	100.00	110.00	100.00	66.00	126.00	255.00
1.127E+66	7.158E+66	95.8052	95	7.226E+77	7.108E+22	9.874E+33
0.0769	0.08	4.70E+37	3.80E+35	0.089005	0.03	0.03980
5		0.044204774	0.04181317	-50		
			Δ 2007>	-1.46	-0.34	0.98
				-0.05	0.75	2.76
						3.65

YEAR	Dishwashers	Ranges	Washers	Dryers	Freezers	Fridges	TVs		Dishwashers	Ranges	Washers	Dryers	Freezers	Fridges	TVs
1964	2.3	33.7	10.7	10.1	10.1	90.5	93.8		0.57	37.04	6.90	16.80	23.76	92.44	84.19
1965	1.1	39.4	12.2	12.2	9.4	91.7	97.8		0.80	39.92	10.75	20.00	25.92	93.22	87.91
1966	2.2	40.6	14.4	14.4	12.2	92.8	103.3		1.10	42.78	14.42	23.07	28.06	93.98	91.64
1967	1.7	45.6	16.7	17.2	16.1	93.9	105.0		1.48	45.61	17.94	26.02	30.18	94.73	95.37
1968	2.2	45.4	18.9	20.5	18.4	95.1	106.0		1.95	48.39	21.31	28.84	32.26	95.46	99.10
1969	2.1	50.3	25.5	24.6	20.3	97.3	108.6		2.51	51.11	24.53	31.55	34.29	96.18	102.83
1970	3.2	53.4	27.5	29.1	23.8	97.4	112.2		3.17	53.77	27.61	34.15	36.26	96.89	106.53
1971	3.7	54.5	24.9	26.5	26.5	96.8	111.1		3.94	56.34	30.56	36.64	38.15	97.58	110.23
1972	4.4	57.0	30.0	30.0	27.5	97.6	112.0		4.82	58.83	33.38	39.03	39.98	98.25	113.89
1973	5.1	60.8	35.1	36.9	31.8	98.1	117.3		5.81	61.23	36.08	41.32	41.72	98.92	117.53
1974	6.4	64.8	38.4	36.1	34.7	98.6	119.6		6.91	63.54	38.67	43.52	43.38	99.56	121.14
1975	8.1	68.0	42.8	41.0	37.8	98.7	120.5		8.11	65.75	41.14	45.63	44.96	100.20	124.71
1976	9.3	71.4	44.5	44.9	41.9	99.6	127.4		9.40	67.86	43.50	47.65	46.46	100.82	128.24
1977	10.6	71.9	46.8	49.4	42.1	99.2	127.2		10.78	69.87	45.76	49.59	47.87	101.43	131.72
1978	12.0	75.1	48.6	51.0	42.3	99.2	127.8		12.24	71.79	47.93	51.45	49.19	102.03	135.16
1979	13.7	75.8	50.0	52.4	49.2	100.7	130.7		13.77	73.60	50.00	53.23	50.44	102.61	138.55
1980	15.4	75.1	55.3	58.1	50.2	102.2	134.4		15.35	75.32	51.98	54.94	51.61	103.18	141.89
1981	16.0	77.4	56.8	57.6	51.8	103.8	134.2		16.98	76.95	53.87	56.58	52.70	103.74	145.17
1982	18.6	78.3	57.4	58.2	55.5	105.3	138.4		18.64	78.49	55.69	58.16	53.72	104.29	148.40
1983	19.6	80.4	59.3	59.3	54.8	105.2	141.9		20.33	79.93	57.42	59.67	54.67	104.82	151.57
1984	21.9	81.5	63.4	62.7	57.5	106.9	146.2		22.02	81.29	59.08	61.11	55.55	105.34	154.68
1985	20.7	81.7	62.0	62.7	58.3	105.3	147.0		23.72	82.57	60.67	62.50	56.38	105.85	157.72
1986	22.9	85.0	65.0	64.1	59.5	107.2	149.0		25.40	83.77	62.19	63.83	57.14	106.35	160.71
1987	23.6	85.3	64.2	66.1	61.0	105.5	149.2		27.07	84.90	63.64	65.11	57.84	106.84	163.63
1988	27.8	86.4	67.6	66.3	61.2	106.3	154.4		28.71	85.95	65.03	66.33	58.50	107.32	166.49
1989	28.4	86.6	69.4	67.9	62.9	106.6	153.8		30.32	86.94	66.36	67.51	59.10	107.78	169.28
1990	28.9	86.7	71.1	69.5	64.5	106.9	153.1		31.89	87.86	67.64	68.63	59.66	108.24	172.01
1991	31.3	88.7	70.9	69.9	64.0	107.7	155.2		33.42	88.72	68.85	69.71	60.17	108.69	174.67
1992	32.0	89.7	73.0	72.0	64.1	106.1	157.5		34.90	89.53	70.02	70.75	60.65	109.12	177.27
1993	33.0	89.7	73.5	72.5	64.3	107.5	158.3		36.32	90.28	71.13	71.74	61.09	109.55	179.80
1994	33.1	89.8	74.4	73.8	65.1	108.1	159.0		37.70	90.98	72.20	72.69	61.49	109.96	182.27
1995	33.0	91.3	76.2	73.7	64.0	110.0	157.8		39.01	91.63	73.22	73.61	61.86	110.37	184.67
1996	35.0	92.4	78.0	73.7	64.1	111.2	159.1		40.28	92.23	74.20	74.48	62.21	110.76	187.01
1997	36.5	92.9	82.5	75.9	66.1	112.4	170.2		41.48	92.80	75.13	75.32	62.52	111.15	189.29
1998	39.6	92.5	82.3	76.4	65.2	111.7	182.0		42.63	93.32	76.03	76.13	62.81	111.52	191.50
1999	41.8	94.3	83.3	78.7	63.7	113.7	181.4		43.72	93.81	76.88	76.90	63.07	111.89	193.66
2000	40.2	93.1	80.3	76.0	65.4	114.7	188.2		44.76	94.26	77.70	77.64	63.32	112.25	195.75
2001	43.7	95.3	82.7	80.0	65.6	113.3	187.4		45.74	94.68	78.48	78.35	63.54	112.60	197.78
2002	41.8	94.2	81.7	78.3	65.4	114.9	194.0		46.67	95.07	79.23	79.03	63.75	112.95	199.75
2003	45.8	95.7	81.5	77.8	63.2	115.1	197.0		47.54	95.44	79.95	79.69	63.94	113.28	201.66
2004	45.6	95.4	83.5	79.4	63.8	116.6	200.4		48.37	95.77	80.63	80.32	64.11	113.61	203.52
2005	49.0	95.7	83.7	80.8	64.6	117.0	204.4		49.14	96.09	81.29	80.92	64.27	113.92	205.31
2006	47.2	97.0	81.9	80.0	63.2	116.0	210.9		49.88	96.38	81.92	81.49	64.41	114.24	207.06
2007	49.1	96.3	83.5	82.0	65.3	117.3	212.4		50.56	96.64	82.52	82.05	64.55	114.54	208.75
2008	49.1	96.3	83.6	80.9	63.7	118.0	208.7		51.21	96.89	83.09	82.58	64.67	114.83	210.38
2009	51.6	97.1	82.9	82.5	64.0	115.6	206.7		51.81	97.12	83.64	83.09	64.78	115.12	211.97
2010	52.4	97.3	84.2	83.6	64.9	115.4	213.5		52.38	97.34	84.17	83.57	64.89	115.40	213.50
2011	52.9	97.5	84.7	84.0	65.0	115.7	215.0		52.90	97.54	84.67	84.04	64.98	115.68	214.99
2012	53.4	97.7	85.2	84.5	65.1	115.9	216.4		53.40	97.72	85.15	84.49	65.07	115.94	216.42
2013	53.9	97.9	85.6	84.9	65.1	116.2	217.8		53.86	97.89	85.61	84.92	65.14	116.21	217.81
2014	54.3	98.0	86.1	85.3	65.2	116.5	219.2		54.29	98.05	86.05	85.33	65.22	116.46	219.16
2015	54.7	98.2	86.5	85.7	65.3	116.7	220.5		54.70	98.19	86.48	85.73	65.28	116.71	220.46
2016	55.1	98.3	86.9	86.1	65.3	116.9	221.7		55.07	98.33	86.88	86.11	65.34	116.95	221.71
2017	55.4	98.5	87.3	86.5	65.4	117.2	222.9		55.42	98.45	87.27	86.47	65.40	117.19	222.93
2018	55.7	98.6	87.6	86.8	65.5	117.4	224.1		55.75	98.57	87.64	86.82	65.45	117.42	224.10
2019	56.1	98.7	88.0	87.2	65.5	117.6	225.2		56.05	98.68	87.99	87.16	65.50	117.64	225.23
2020	56.3	98.8	88.3	87.5	65.5	117.9	226.3		56.34	98.78	88.33	87.48	65.54	117.86	226.33
2021	56.6	98.9	88.6	87.8	65.6	118.1	227.4		56.60	98.87	88.65	87.79	65.58	118.07	227.38
2022	56.8	99.0	89.0	88.1	65.6	118.3	228.4		56.84	98.95	88.96	88.08	65.61	118.28	228.40

1989	1990	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
1302	1289	1262	1246	1227	1203	1179	1148	1129	1104	1080	1061	1039	1016	967	925	889	837	790	749	700	658	619	583	549	519	492	468	447	430	415	403	393	0	0	0	0

1989	1990	1992	1993.00	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
1075.59	1068	1043	1026.98	1012	997	970	932	887.3496	852	839	801	785	750.2184	721.1384	674.8225	654.2137	611.3679	581.7737	544.0859	516.4095	491.7018	468.7881	447.4169	427.6438	409.4759	392.9607	378.2805	365.6071	355.0558	346.6137	340	335	332	329	327	0

1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
790	788	784	781	778	775	771	767	765	763	760	758	755	752	748	741	732	718	706	693	679	666	653	640	627	614	601	589	576	564	553	542	531	521	0	0	0	0

50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	SUM			
																																				0
																																				0
																																				3,644
																																				9,733
																																				22,776
																																				51,109
																																				125,585
																																				523,723
																																				1,110,441
																																				1,730,889
																																				7,947,629
																																				14,829,630
																																				18,969,650
																																				22,654,517
																																				24,334,170
																																				27,412,531
																																				29,000,209
																																				30,969,447
																																				33,261,099
																																				34,575,793
																																				37,094,319
																																				40,473,450
																																				41,933,219
																																				42,133,888
																																				43,126,866
																																				44,609,089
																																				41,881,328
																																				44,964,753
																																				43,934,327
																																				41,705,810
																																				39,829,531
																																				40,161,900
																																				37,105,162
																																				35,536,617
																																				35,713,562
																																				35,170,130
																																				36,173,605
																																				36,452,919
																																				37,798,938
																																				37,943,319
																																				36,067,048
																																				36,116,067
																																				34,713,225
																																				33,477,860
																																				32,163,308
																																				29,340,241
																																				27,613,124
																																				25,415,455
																																				22,585,498
																																				21,055,616
1,363,012																																			19,699,735	
1,360,323	1,319,215																																		18,367,962	
1,355,787	1,316,612	1,222,892																																	17,147,985	
1,347,393	1,312,222	1,220,480	1,006,617																																15,926,571	
1,332,786	1,304,098	1,216,410	1,004,632	995,717																															14,928,102	
1,308,888	1,289,961	1,208,879	1,001,282	993,753	733,935																														13,901,377	
1,272,122	1,269,830	1,195,774	995,083	990,440	732,487	554,823																													12,911,993	
1,218,836	1,231,245	1,174,333	984,295	984,308	730,045	553,728	605,915																												12,159,886	
1,146,591	1,179,768	1,141,346	966,646	973,637	725,525	551,882	604,719	393,486																											11,343,269	
1,054,058	1,109,748	1,093,628	939,493	956,179	717,660	548,465	602,703	392,710	340,780																										10,582,205	
942,767	1,020,188	1,028,720	900,214	929,320	704,791	542,519	598,972	391,401	340,108	326,758																									9,879,160	
816,305	912,474	945,699	846,785	890,466	694,994	532,791	592,478	388,977	338,974	328,113	334,209																							9,227,403		
683,055	790,656	845,850	778,447	837,618	656,355	517,825	581,855	384,761	336,875	325,026	333,550	347,147																						8,580,495		
549,206	661,107	732,926	696,257	770,018	617,400	496,176	565,510	377,861	333,223	323,014	332,438	346,462	366,750																					8,006,963		
423,343	531,558	612,836	603,304	688,717	567,574	466,727	541,867	367,247	327,248	319,512	330,379	345,307	366,027	364,037																				7,453,035		
312,052	409,740	492,747	504,453	596,771	507,648	429,061	509,707	351,893	318,056	313,783	326,798	343,169	364,806	363,319	381,767																			6,948,445		
219,520	302,025	379,823	40																																	

1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
830	813	802	790	771	747	732	712	686	671	657	636	620	604	595	572	551	537	513	488	484	467	453	440	428	417	407	398	389	382	375	369	363	358	0	0	0	0

1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
3589	3580	3571	3562	3556	3545	3533	3522	3507	3494	3479	3460	3442	3429	3400	3381	3361	3343	3325	3308	3292	3277	3262	3247	3232	3217	3201	3186	3170	3154	3137	3121	3106	3090	0	0	0	0

IR001e

Data used for the load forecast

Year	RPCPIS Consumer Price Index, NS (2002=1.0)	RRCGOODS Consumer Goods Sales constant\$	RREP Electricity Price constant\$	Heating Oil ¢ / Litre constant\$	RQTOS NS GDP constant\$	HDD Annual HDD	RRYDS Disposable Income constant\$	RRTS Retail Sales constant\$	RQTOS NS GDP Constant \$M	RQSRS NS GDP for Services Constant \$M	RCEP Commercial Avg Elec Price ¢ / kWh	RRTS Retail Sales Constant \$M	RRCGOODS Consumer Goods Sales constant\$	RRYDS Disposable Income constant\$	RRINRBS Nominal Domestic Product: Business Non- Residential Investment Spend constant\$	RIHSS Total Dwelling starts units	RHS Population Nova Scotia (Thousands)	CUST Residential Customers accounts
1981	0.51	6564	11.58	48.1	15038	3976	13,594	6,273	15,038	11097.85188	12.17	6,273	6,564	13,594	1140	3715	854.9	271,481
1982	0.56	6434	10.80	53.5	14964	4273	13,887	6,133	14,964	11,161	11.14	6,133	6,434	13,887	1411	3691	859.1	274,691
1983	0.59	6678	12.89	56.6	15405	3887	13,859	6,602	15,405	11,373	10.83	6,602	6,678	13,859	1892	5697	867.6	279,727
1984	0.62	7225	12.42	57.0	16274	4031	14,446	7,255	16,274	11,877	13.15	7,255	7,225	14,446	1699	4598	877.2	285,899
1985	0.64	7490	11.77	59.4	16982	4395	15,071	7,866	16,982	12,469	12.67	7,866	7,490	15,071	1488	6923	885.2	292,098
1986	0.67	7596	11.30	47.0	17495	4383	15,250	7,984	17,495	12,849	12.25	7,984	7,596	15,250	1148	7571	888.9	299,739
1987	0.69	7706	11.03	41.2	17841	4281	15,732	8,409	17,841	13,255	11.79	8,409	7,706	15,732	868	6460	892.9	306,466
1988	0.71	7918	10.26	40.2	18320	4292	16,403	8,767	18,320	13,719	11.18	8,767	7,918	16,403	1001	5478	896.7	313,829
1989	0.74	7899	10.36	37.8	18544	4400	17,035	8,631	18,544	13,914	11.13	8,631	7,899	17,035	1068	5359	903.0	320,601
1990	0.78	7832	10.27	43.3	18778	3981	16,989	8,221	18,778	14,067	10.83	8,221	7,832	16,989	1151	5560	909.5	327,156
1991	0.83	7417	10.63	47.1	18738	4047	16,581	7,313	18,738	14,028	11.51	7,313	7,417	16,581	1062	5173	914.4	332,112
1992	0.83	7450	10.80	43.7	18820	4453	16,891	7,655	18,820	14,243	11.54	7,655	7,450	16,891	802	4673	919.0	336,421
1993	0.85	7529	11.77	43.2	18867	4377	17,076	7,933	18,867	14,413	11.82	7,933	7,529	17,076	578	4282	923.6	341,660
1994	0.85	7554	11.90	40.2	19069	4154	16,958	8,027	19,069	14,565	11.95	8,027	7,554	16,958	486	4748	926.7	346,297
1995	0.87	7484	11.74	39.0	19455	4152	17,085	7,845	19,455	14,800	11.79	7,845	7,484	17,085	577	4168	928.3	350,499
1996	0.88	7552	12.02	43.9	19490	4154	16,795	8,456	19,490	14,853	11.46	8,456	7,552	16,795	631	4059	930.8	355,026
1997	0.90	7814	11.73	47.8	20027	4283	17,070	8,625	20,027	15,252	10.36	8,625	7,814	17,070	636	3813	932.3	359,526
1998	0.91	8061	11.72	41.1	20772	3829	17,707	8,949	20,772	15,713	10.33	8,949	8,061	17,707	1812	3137	932.3	362,096
1999	0.92	8442	12.17	41.6	21971	3606	18,250	9,354	21,971	16,464	10.70	9,354	8,442	18,250	2398	4250	933.5	368,464
2000	0.95	8647	11.68	60.2	22729	3909	18,373	9,396	22,729	16,954	10.30	9,396	8,647	18,373	1429	4432	934.3	372,078
2001	0.97	8684	11.42	56.1	23531	3911	18,651	9,556	23,531	17,482	10.12	9,556	8,684	18,651	1509	4092	933.1	374,303
2002	1.00	8917	11.11	52.2	24509	4075	18,668	9,840	24,509	18,129	9.80	9,840	8,917	18,668	1379	4970	934.7	381,879
2003	1.03	9022	11.01	62.2	24955	4146	18,561	9,685	24,955	18,530	9.69	9,685	9,022	18,561	1357	5096	936.8	385,612
2004	1.05	9146	10.78	65.0	25250	4295	19,074	9,786	25,250	18,785	9.38	9,786	9,146	19,074	1298	4717	939.1	389,243
2005	1.08	9265	11.21	77.3	25593	3936	19,384	9,731	25,593	19,159	9.41	9,731	9,265	19,384	1070	4775	938.4	393,067
2006	1.10	9422	11.55	79.6	25774	3468	19,827	10,089	25,774	19,712	9.76	10,089	9,422	19,827	1047	4896	937.8	397,022
2007	1.12	9668	10.98	74.7	26216	4151	20,357	10,326	26,216	20,123	8.73	10,326	9,668	20,357	920	4750	936.0	400,943
2008	1.16	9983	11.20	91.8	26582	4002	20,728	10,435	26,582	20,591	9.56	10,435	9,983	20,728	966	3982	937.3	404,963
2009	1.16	10032	12.42	64.2	26490	4207	21,243	10,458	26,490	20,822	10.48	10,458	10,032	21,243	1193	3438	940.4	408,061
2010	1.18	10178	11.55	72.1	27046	3532	21,705	10,703	27,046	21,286	10.56	10,703	10,178	21,705	1099	4309	944.5	412,259
2011	1.23	10086	11.48	86.9	27460	3710	21,311	10,704	27,460	21,548	10.75	10,704	10,086	21,311	1075	4255	945.5	415,779
2012	1.25	10310	12.53	86.9	27949	3,960	21,513	10,934	27,949	21,888	11.81	10,934	10,310	21,513	1153	3591	946.9	419,333
2013	1.28	10418	13.48	83.2	28655	3,960	21,721	11,069	28,655	22,278	11.81	11,069	10,418	21,721	1241	3307	950.0	422,641
2014	1.31	10501	13.32	93.1	29125	3,960	21,893	11,174	29,125	22,627	11.81	11,174	10,501	21,893	1109	3086	953.6	425,726
2015	1.33	10573	13.05	97.1	29565	3,960	22,073	11,260	29,565	22,959	11.81	11,260	10,573	22,073	1098	2909	956.5	428,635
2016	1.36	10613	12.95	98.1	29887	3,960	22,220	11,317	29,887	23,229	11.81	11,317	10,613	22,220	1136	3009	959.1	431,644
2017	1.39	10661	13.00	98.1	30243	3,960	22,352	11,398	30,243	23,525	11.81	11,398	10,661	22,352	1070	3003	961.8	434,647
2018	1.42	10725	13.38	99.0	30674	3,960	22,501	11,496	30,674	23,829	11.81	11,496	10,725	22,501	1036	3003	964.3	437,650
2019	1.45	10791	13.13	99.7	31174	3,960	22,655	11,590	31,174	24,156	11.81	11,590	10,791	22,655	1024	3003	966.7	440,652
2020	1.48	10827	13.17	100.2	31626	3,960	22,779	11,655	31,626	24,476	11.81	11,655	10,827	22,779	1052	3001	968.8	443,653
2021	1.51	10835	13.22	101.2	32046	3,960	22,871	11,685	32,046	24,779	11.81	11,685	10,835	22,871	1067	3021	970.9	446,674
2022	1.54	10802	13.27	101.6	32297	3,960	22,920	11,677	32,297	25,031	11.81	11,677	10,802	22,920	1083	2840	972.7	449,514

Real Price Ratio (Oil/Elec) calculation

38.680 MJ / L #2 oil

3.600 MJ / kWh electric

Year	RPCPIS NS CPI 2002=1.00	NS furnace oil price current ¢ / l	NS furnace oil price current\$ / GJ	NS furnace oil price 2002\$ / GJ	Electricity Avg. price ¢ / kWh	Real Electric Avg. price 2002\$ / kWh	Electricity Avg. price 2002\$ / GJ	Oil / Electric price ratio (\$/GJ) / (\$/GJ)
2000	0.953	57.4	14.8	15.56	11.13	0.1168	32.44	0.480
2001	0.971	54.5	14.1	14.51	11.08	0.1142	31.71	0.458
2002	1.000	52.2	13.5	13.49	11.11	0.1111	30.86	0.437
2003	1.034	64.3	16.6	16.09	11.38	0.1101	30.57	0.526
2004	1.053	68.5	17.7	16.81	11.35	0.1078	29.95	0.561
2005	1.082	83.6	21.6	19.99	12.13	0.1121	31.14	0.642
2006	1.104	87.9	22.7	20.58	12.76	0.1155	32.09	0.641
2007	1.125	84.0	21.7	19.31	12.36	0.1098	30.51	0.633
2008	1.159	106.3	27.5	23.73	12.97	0.1120	31.10	0.763
2009	1.157	74.4	19.2	16.61	14.37	0.1242	34.50	0.481
2010	1.182	85.3	22.1	18.65	13.65	0.1155	32.07	0.581
2011	1.228	106.7	27.6	22.47	14.27	0.1162	32.29	0.696
2012	1.251	108.8	28.1	22.47	15.68	0.1253	34.82	0.645
2013	1.280	106.5	27.5	21.51	17.25	0.1348	37.45	0.574
2014	1.308	121.9	31.5	24.08	17.42	0.1332	36.99	0.651
2015	1.335	129.6	33.5	25.10	17.42	0.1305	36.26	0.692
2016	1.360	133.4	34.5	25.35	17.61	0.1295	35.96	0.705
2017	1.388	136.2	35.2	25.36	18.05	0.1300	36.12	0.702
2018	1.416	140.3	36.3	25.60	18.96	0.1338	37.18	0.689
2019	1.446	144.1	37.3	25.77	18.98	0.1313	36.47	0.707
2020	1.476	147.9	38.2	25.91	19.44	0.1317	36.59	0.708
2021	1.506	152.4	39.4	26.17	19.90	0.1322	36.71	0.713
2022	1.536	156.2	40.4	26.28	20.39	0.1327	36.86	0.713

NON-CONFIDENTIAL

1 **Request IR-2:**

2

3 **Historic Usage Data**

4 **a. Please provide in electronic spreadsheet format historic load data by rate class since**
5 **1994 on a monthly basis.**

6 **b. Please provide in electronic spreadsheet format historic usage data for electric**
7 **space-heat customers.**

8

9 Response IR-2:

10

11 (a) Please refer to Attachment 1, filed electronically. Data prior to 1996 is only available on
12 an annual basis.

13

14 (b) Data for electric space heat usage is not tracked as a separate class. In Attachment 1,
15 usage data is provided for customers under the Time of Day (ToD) tariff, which requires
16 that customers have electric thermal storage capacity.

17

18 Customer numbers are the only indicator that is tracked for all-electric customers (electric
19 space heat) but it is considered to under-estimate the number of all-electric customers.
20 Attachment 1 also provides monthly customer numbers for general residential,
21 all-electric, and ToD classes. This provides an indication of the relative size of each
22 segment.

Monthly Billed Sales by Class (kWh)																													
Class	Jan-96	Feb-96	Mar-96	Apr-96	May-96	Jun-96	Jul-96	Aug-96	Sep-96	Oct-96	Nov-96	Dec-96	1996	Jan-97	Feb-97	Mar-97	Apr-97	May-97	Jun-97	Jul-97	Aug-97	Sep-97	Oct-97	Nov-97	Dec-97	1997	Jan-98	Feb-98	
Residential	374,569,987	404,507,494	365,266,993	341,532,079	311,487,283	263,266,469	222,469,544	208,147,849	208,804,790	219,496,326	256,704,650	292,232,772	3,468,486,236	364,662,193	400,938,745	359,575,214	365,123,896	331,977,461	265,739,375	226,659,044	210,470,347	202,635,636	219,432,210	253,007,810	295,321,160	3,495,543,091	372,498,232	375,937,716	
Residential Time of Day																													
Small General	9,091,283	10,149,513	9,005,750	8,389,935	7,598,759	6,662,752	6,569,100	6,640,711	6,651,469	6,216,638	6,522,247	7,296,173	90,794,330	8,683,203	9,181,545	8,855,740	8,620,686	7,529,386	6,657,675	6,436,441	6,734,578	6,683,225	6,720,252	7,791,342	7,636,139	91,530,212	9,577,325	8,458,134	
General	198,888,603	206,076,369	188,443,236	180,869,999	168,775,214	159,350,760	151,649,162	160,759,953	155,879,109	154,989,382	166,657,423	167,605,505	2,059,944,715	198,762,030	200,593,473	184,959,048	191,699,127	176,983,008	155,582,291	154,214,375	156,772,637	156,670,976	161,737,744	157,549,345	166,385,559	2,061,909,613	206,858,224	185,322,051	
Large General	32,822,201	29,964,248	28,143,224	30,438,244	28,227,167	25,859,227	31,963,756	30,535,033	29,078,225	28,481,764	26,854,070	30,710,067	353,077,226	32,202,109	28,463,198	31,395,157	29,018,564	27,873,105	29,383,760	32,912,670	28,792,444	31,216,029	28,320,480	26,913,558	32,423,110	358,914,184	31,626,178	28,629,642	
Unmetered	7,484,893	7,334,827	7,938,165	7,191,983	7,334,881	7,669,674	7,817,445	7,576,403	7,548,491	7,613,642	7,475,279	7,468,134	90,453,817	7,448,583	7,514,886	7,212,723	7,680,020	7,676,856	7,348,931	7,608,980	7,149,076	8,064,666	7,833,335	7,438,418	7,444,667	90,421,141	6,665,695	8,241,816	
Small Industrial	13,558,674	13,271,164	13,151,533	11,773,056	12,939,511	12,021,817	12,376,010	15,011,074	11,650,909	13,718,362	11,220,604	12,294,624	152,987,338	14,955,654	13,771,001	15,276,508	12,924,709	15,460,390	10,265,430	14,314,915	13,005,960	14,610,108	13,833,090	14,996,954	14,947,051	168,361,770	17,253,718	15,843,084	
Medium Industrial	32,287,258	33,926,554	31,231,736	30,560,033	31,511,285	31,661,767	30,866,751	30,914,636	28,865,471	31,932,626	32,223,121	31,962,539	377,943,777	33,439,758	34,923,090	30,980,522	32,925,509	31,088,783	33,169,127	38,100,684	34,683,247	31,025,815	33,957,612	33,255,674	33,284,116	400,833,937	35,233,234	34,282,655	
Large Industrial	125,856,025	120,640,682	110,103,907	106,809,898	130,234,814	122,759,687	111,558,390	111,869,834	115,110,528	110,397,143	127,173,344	101,938,746	1,394,452,998	122,290,006	106,815,771	111,194,481	105,701,103	131,838,914	115,394,882	106,340,370	104,710,535	112,473,270	112,153,621	105,213,292	102,387,179	1,336,513,424	18,475,005	20,039,199	
Load Retention	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOU - Real-time price	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-P-RTP - CBL Base Cost	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lg.Ind.Interrupt.Rider	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90,882,408	88,918,900
Surplus Power Interruptible	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16,517,210	2,105,885	488,588	11,214,101	18,482,865	17,579,135	11,778,446	78,166,230	18,173,930	8,787,805
Indust.Expansion Interruptible	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOD Industrial Expansion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Replacement/Load Following	18,654,400	14,695,607	16,291,926	17,253,242	18,063,027	16,787,477	17,819,567	17,041,747	18,947,347	17,568,617	16,230,942	16,731,730	206,085,629	17,038,914	13,936,127	19,485,242	16,244,227	19,249,184	19,291,475	24,999,947	22,807,718	28,306,317	23,313,455	18,480,117	18,830,236	241,982,959	18,222,102	16,501,327	
Extra Lg. Ind. Int.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extra Lg. Ind. Int. Buy Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ELI - 2PT RTP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bowater Mersey	55,924,580	51,005,223	53,542,206	51,974,813	49,659,839	50,287,933	55,193,990	53,693,453	50,058,433	52,665,223	52,756,379	46,142,903	622,904,975	49,727,113	46,409,063	52,835,313	54,926,683	53,630,913	53,441,393	54,534,033	52,524,963	46,715,013	50,850,703	52,617,313	47,986,067	616,198,570	15,833,337	15,833,333	
Mersey Additional Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bowater Expansion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33,972,470	34,788,270
Municipal	26,348,860	23,754,017	22,648,182	22,794,419	16,998,654	15,688,943	18,890,652	17,587,196	18,528,312	20,569,330	21,481,128	24,362,851	249,652,544	26,688,341	23,803,186	26,113,734	20,829,293	18,175,134	17,996,448	18,471,252	17,269,305	19,409,727	20,752,047	21,042,400	27,342,397	257,893,264	26,026,991	22,858,983	
Exports	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	1,400,000	23,295,000	
Total	895,486,764	915,325,698	845,766,858	809,587,701	782,830,434	712,016,506	667,174,367	659,777,889	651,123,084	663,649,053	725,299,187	738,746,044	9,066,783,585	875,897,904	886,350,085	847,883,682	845,693,817	821,483,134	730,787,997	687,150,394	656,118,539	669,659,779	698,026,008	716,628,510	766,556,380	9,202,236,229	903,521,320	888,482,230	

Monthly Billed Sales by Class (kWh)																										
Class	Mar-98	Apr-98	May-98	Jun-98	Jul-98	Aug-98	Sep-98	Oct-98	Nov-98	Dec-98	1998	Jan-99	Feb-99	Mar-99	Apr-99	May-99	Jun-99	Jul-99	Aug-99	Sep-99	Oct-99	Nov-99	Dec-99	1999	Jan-00	Feb-00
Residential	352,370,827	352,345,187	299,348,971	248,389,390	221,571,004	216,645,329	210,675,733	216,155,617	261,793,066	306,123,178	3,433,854,249	368,693,672	387,056,270	353,725,584	363,780,927	292,069,451	255,302,262	214,711,756	226,001,429	218,708,906	225,710,911	258,228,491	280,931,700	3,444,921,357	368,541,865	426,062,960
Residential Time of Day	137,668	76,197	55,000	107,951	26,133	46,494	40,472	70,760	107,193	157,119		346,663	274,255	378,973	332,707	278,667	204,327	77,901	179,254	179,079	209,618	338,527	435,437		946,623	1,006,611
Small General	8,743,170	8,234,324	7,507,891	6,066,920	6,324,476	6,809,568	6,962,271	6,454,303	6,869,121	8,005,256	90,012,759	9,486,504	9,982,605	9,782,402	9,491,795	7,959,340	7,107,427	7,484,340	8,116,331	8,279,265	7,297,848	8,694,690	8,200,492	101,883,039	10,364,189	11,525,817
General	195,522,629	191,497,432	163,746,663	147,705,864	165,783,774	171,704,731	153,441,776	156,006,405	163,151,524	173,780,521	2,074,521,594	207,462,217	190,760,489	193,357,687	193,985,023	168,494,780	159,998,473	177,423,744	173,272,696	175,952,686	166,901,397	172,764,692	165,313,318	2,145,687,203	209,327,237	199,796,797
Large General	30,797,429	29,187,142	26,597,339	28,168,150	27,438,262	32,717,846	27,878,894	19,349,423	27,537,370	26,869,583	336,797,257	29,243,853	25,927,005	28,412,318	26,255,224	27,324,344	28,477,600	30,496,398	31,141,115	30,963,639	26,922,502	27,400,810	35,788,028	348,352,835	30,095,596	28,830,298
Unmetered	7,368,757	8,032,454	7,649,556	7,531,252	7,392,238	7,495,454	7,036,244	7,576,212	7,405,980	8,184,560	90,580,218	7,730,007	7,854,247	7,497,393	7,306,746	7,468,036	7,594,446	7,761,626	7,725,094	8,013,602	7,523,498	8,049,264	7,554,121	92,078,078	7,951,718	7,782,028
Small Industrial	16,093,850	15,762,568	15,897,942	14,907,660	16,431,873	16,406,601	16,657,500	14,342,804	17,287,270	15,517,345	192,402,216	19,927,749	16,293,471	18,883,368	18,303,576	18,264,974	15,498,593	20,299,789	17,137,846	20,223,926	16,455,132	18,361,642	16,492,470	216,142,536	20,588,616	18,524,721
Medium Industrial	32,928,868	35,184,923	35,354,300	33,096,844	35,027,185	34,302,908	36,837,471	32,018,473	35,974,774	35,056,372	415,298,007	37,308,880	34,796,755	36,066,720	39,423,066	36,445,373	35,773,316	38,550,210	43,008,829	38,198,222	38,283,153	38,715,254	37,292,304	453,862,082	39,949,327	39,279,108
Large Industrial	19,911,402	16,887,577	17,122,167	20,422,544	13,753,320	27,383,552	21,734,188	26,922,600	20,348,516	23,186,183	246,186,253	23,699,794	21,122,739	19,917,225	16,865,613	18,500,221	18,303,976	19,572,886	19,274,362	18,484,069	19,813,368	19,301,612	19,484,622	234,340,487	19,030,822	18,344,686
Load Retention	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOU - Real-time price	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-P-RTP - CBL Base Cost	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lg.Ind.Interrupt.Rider	88,825,057	97,228,068	131,215,899	87,630,876	95,987,141	79,729,066	85,708,371	19,545,683	87,605,013	75,213,867	1,028,490,348	83,519,507	77,177,622	83,756,212	80,821,524	82,826,328	85,793,601	81,182,317	93,054,490	86,896,821	85,320,300	82,942,507	95,014,244	1,018,305,474	113,837,728	108,644,165
Surplus Power Interruptible	20,872,645	20,055,551	24,563,561	21,802,147	8,665,560	5,095,073	22,540,100	19,806,482	8,687,927	17,844,084	196,894,865	8,600,159	22,719,419	8,654,386	4,590,291	23,695,040	18,564,786	22,530,084	3,021,402	19,329,555	20,412,646	22,131,438	13,184,257	187,433,463	1,900,028	1,925,620
Indust.Expansion Interruptible	0	0	0	44,412,512	48,035,795	55,523,857	52,802,232	136,683,231	60,877,495	52,118,468	450,453,590	67,830,954	59,436,655	69,594,604	70,602,715	77,738,457	79,033,354	71,049,220	64,086,841	73,268,593	74,640,464	73,531,335	66,965,521	847,778,713	81,453,447	80,050,900
TOD Industrial Expansion	667,721	0	0	0	0	0	0	0	0	0	2,109,632	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Replacement/Load Following	29,804,227	20,976,683	21,390,221	24,608,667	23,854,467	23,247,017	27,065,723	30,636,505	29,554,458	22,071,904	287,933,301	23,654,090	22,028,568	29,060,198	29,326,538	30,851,122	32,670,030	33,564,242	31,599,791	30,050,498	40,374,069	40,187,310	35,816,026	379,182,482	28,250,244	23,838,833
Extra Lg. Ind. Int.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extra Lg. Ind. Int. Buy Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ELI - 2PT RTP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bowater Mersey	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	190,000,000	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	190,000,000	15,833,337	15,833,333
Mersey Additional Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bowater Expansion	33,892,150	31,291,910	35,909,570	37,247,220	35,767,400	36,487,510	32,880,990	36,502,010	37,170,930	28,440,238	414,350,668	34,903,038	31,158,114	34,277,493	33,305,890	37,863,250	5,839,170	36,258,510	33,448,979	12,759,761	35,022,891	36,402,840	0	331,239,936	0	0
Municipal	25,093,456	20,315,711	15,729,774	20,327,477	20,587,587	17,937,954	18,374,781	14,914,921	14,732,721	16,411,995	233,312,352	18,037,626	15,143,678	16,479,423	13,409,570	11,805,607	11,132,737	11,984,373	11,328,535	12,199,410	12,947,269	15,382,690	16,086,794	165,937,712	17,735,749	16,688,482
Exports	5,750,000	21,420,000	30,240,000	36,818,000	33,294,000	8,152,000	0	0	0	0	160,369,000	3,861,000	28,104,000	43,889,000	34,219,000	24,514,000	17,377,000	22,275,000	6,640,000	1,650,000	0	1,370,000	12,715,000	196,614,000	10,693,000	9,815,000
Total	884,613,189	884,329,060	848,162,187	795,076,807	775,773,548	755,518,293	736,470,078	752,818,762	794,936,691	824,814,006	9,844,516,170	960,139,045	965,669,224	969,566,319	957,853,538	881,932,322	794,504,431	811,055,730	784,870,326	770,991,364	793,668,398	839,636,435	827,107,671	10,356,994,803	976,499,526	1,007,949,359

Monthly Billed Sales by Class (kWh)																										
Class	Mar-00	Apr-00	May-00	Jun-00	Jul-00	Aug-00	Sep-00	Oct-00	Nov-00	Dec-00	2000	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01	Oct-01	Nov-01	Dec-01	2001	Jan-02	Feb-02
Residential	369,322,723	344,936,354	309,333,356	283,230,436	237,229,651	235,107,504	217,639,717	237,247,576	254,453,733	314,951,086	3,598,056,961	390,469,100	406,775,360	416,180,211	356,975,576	322,952,486	276,943,051	238,371,213	234,957,448	227,201,329	227,216,395	252,476,269	299,953,239	3,650,471,676	372,058,509	414,589,352
Residential Time of Day	1,184,661	701,110	938,334	589,815	472,222	370,235	303,663	461,011	708,311	1,103,352		1,885,241	2,303,298	2,881,329	2,644,129	2,220,319	1,817,161	1,250,379	1,149,635	1,085,844	1,369,585	2,105,222	3,366,188		4,721,990	6,177,528
Small General	10,888,481	9,446,280	9,033,839	8,317,451	8,497,251	8,989,876	8,461,638	8,562,469	8,353,318	9,206,772	111,647,381	10,859,532	10,098,727	10,182,887	8,652,550	7,682,330	6,916,471	7,133,861	7,391,583	7,586,960	6,955,644	7,244,683	8,109,957	98,815,185	9,936,098	10,541,914
General	204,257,137	185,641,409	175,572,174	168,601,388	177,616,735	169,915,525	174,332,282	166,666,599	179,695,397	179,962,613	2,191,385,293	229,433,639	214,361,447	221,159,260	197,018,203	188,463,715	174,910,068	181,053,923	185,442,817	185,985,292	172,609,056	188,625,130	186,028,871	2,325,091,421	212,352,661	220,366,542
Large General	29,619,622	26,823,967	28,395,153	28,888,179	30,716,318	32,190,624	29,242,536	28,941,031	28,135,876	29,295,601	351,174,801	30,866,711	27,786,181	30,134,729	27,988,942	28,412,261	29,600,929	30,547,225	33,450,938	30,225,631	29,735,498	28,357,555	29,007,517	356,114,117	30,556,355	27,527,185
Unmetered	8,019,582	7,789,411	8,170,022	7,791,760	7,741,835	7,900,409	8,095,358	6,905,332	9,096,996	7,434,212	94,678,662	8,407,010	7,671,423	8,297,397	7,746,103	8,206,085	7,945,647	8,663,941	7,625,065	8,124,443	8,083,086	8,276,155	7,981,777	97,028,131	8,251,829	8,061,977
Small Industrial	19,497,456	16,880,493	17,423,482	16,162,035	18,668,622	16,770,218	18,542,463	15,895,458	18,504,731	16,433,763	213,892,058	20,840,600	16,728,411	20,119,346	14,055,414	19,274,714	17,251,269	19,872,304	18,874,294	20,984,237	16,682,371	19,966,500	17,712,695	222,362,155	21,668,471	18,701,796
Medium Industrial	39,454,827	41,212,109	39,389,867	42,880,426	43,331,100	41,173,603	42,759,526	38,589,242	42,806,499	38,774,717	489,600,251	43,057,225	41,968,260	40,181,216	42,242,341	41,208,380	44,111,909	45,173,926	42,612,402	45,286,267	42,800,856	46,062,732	43,211,099	517,916,613	42,059,608	39,624,651
Large Industrial	18,204,531	17,226,420	18,176,359	16,428,631	16,393,570	16,538,296	16,314,955	12,777,406	17,427,184	18,586,648	205,449,508	19,205,457	16,739,577	17,366,019	16,205,742	16,437,504	16,345,551	17,007,795	17,187,291	16,327,034	16,410,237	15,696,382	15,581,542	200,510,131	13,909,918	20,857,764
Load Retention	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOU - Real-time price	0	0	0	0	0	0	0	0	0	0	0	7,633,534	0	0	23,161,544	10,185,822	8,279,834	8,400,120	9,315,444	7,920,853	6,072,080	7,593,559	6,046,180	94,608,970	4,845,975	5,094,298
2-P-RTP - CBL Base Cost	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lg.Ind.Interrupt.Rider	110,692,656	115,936,427	118,333,093	115,849,724	114,292,456	125,965,730	120,047,392	125,414,278	115,667,814	108,864,794	1,393,546,257	103,522,227	105,171,266	112,081,056	83,846,952	99,492,145	103,065,846	102,475,303	106,589,573	86,424,346	104,470,522	94,572,592	68,658,014	1,170,369,842	91,899,594	79,924,378
Surplus Power Interruptible	19,587,139	12,103,974	1,384,984	0	0	0	0	0	0	0	36,901,745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Indust.Expansion Interruptible	84,910,621	88,493,744	86,636,398	71,707,834	88,919,871	90,273,619	90,583,057	88,217,186	82,811,677	84,834,190	1,018,892,544	99,776,991	84,022,763	97,500,673	79,510,856	74,023,742	89,777,894	96,024,392	92,959,228	92,203,831	100,129,781	78,616,041	94,500,921	1,079,047,113	73,063,218	73,541,264
TOD Industrial Expansion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Replacement/Load Following	30,077,978	28,520,449	37,348,069	39,425,783	30,245,438	30,717,828	27,714,908	33,138,918	29,771,867	29,080,716	368,131,031	32,159,693	24,683,002	31,871,594	26,269,801	30,762,916	32,725,752	34,325,451	33,551,108	32,627,995	37,319,385	31,696,408	35,875,201	383,868,306	35,517,914	31,964,410
Extra Lg. Ind. Int.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extra Lg. Ind. Int. Buy Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ELI - 2PT RTP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bowater Mersey	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	190,000,000	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	190,000,000	15,833,337	15,833,333
Mersey Additional Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bowater Expansion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Municipal	15,384,191	13,094,427	12,530,935	11,405,794	11,887,767	12,422,825	12,080,058	13,760,700	14,664,587	17,776,597	169,432,112	18,226,700	16,848,275	16,819,419	14,401,697	12,203,624	11,565,328	12,155,442	12,950,874	12,409,429	13,674,525	15,168,072	16,632,344	173,055,729	18,332,559	16,710,080
Exports	8,970,000	3,690,000	14,835,000	15,350,000	7,370,000	16,005,000	14,660,000	46,951,000	17,885,000	14,540,000	180,764,000	3,100,000	4,900,000	14,280,000	20,355,000	58,589,000	25,755,000	19,815,500	17,550,000	41,175,000	56,919,000	38,423,000	22,637,000	323,498,500	36,713,000	17,064,000
Total	985,904,938	928,329,907	893,334,398	842,462,589	809,216,169	820,174,625	796,610,886	839,361,539	835,816,323	886,678,394	10,622,338,652	1,035,276,993	995,891,323	1,054,888,472	936,908,183	935,948,376	862,845,043	838,104,108	837,441,033	831,401,824	856,281,354	850,713,633	871,135,878	10,906,836,219	991,721,036	1,006,580,472

Monthly Billed Sales by Class (kWh)																											
Class	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02	Oct-02	Nov-02	Dec-02	2002	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	2003	Jan-04	Feb-04	
Residential	366,450,199	348,173,581	342,466,221	294,083,794	244,161,029	240,893,666	233,359,470	240,332,726	280,842,814	337,168,643	3,714,580,003	409,761,742	452,387,411	416,420,371	380,549,241	349,318,659	304,193,410	251,994,104	247,944,882	242,318,733	245,791,855	269,683,944	313,984,694	3,884,349,046	405,997,009	458,786,020	
Residential Time of Day	5,350,155	5,259,748	4,429,151	3,577,166	2,158,974	1,911,272	1,671,304	2,113,644	3,331,710	5,016,241		6,426,191	7,801,718	7,504,765	6,694,096	5,250,917	4,120,759	2,515,227	2,144,934	1,911,762	2,476,475	3,330,008	5,072,461		7,122,491	8,899,221	
Small General	10,021,373	8,966,323	9,177,665	7,710,866	7,474,825	8,030,463	8,158,292	7,440,181	8,107,415	8,881,957	104,447,372	11,161,228	11,742,979	11,596,548	10,195,821	9,538,323	7,850,447	7,884,613	8,121,384	7,999,431	7,367,918	7,497,864	8,099,789	109,056,345	13,150,585	17,294,175	
General	204,393,061	200,265,840	200,061,759	179,846,023	181,712,291	186,809,038	189,920,068	177,066,592	197,810,449	199,002,090	2,349,606,414	234,794,093	237,397,094	225,657,413	207,898,325	200,561,024	184,841,342	189,427,374	195,569,960	190,444,285	185,364,516	176,457,230	188,816,518	2,417,229,174	237,546,157	230,682,562	
Large General	30,163,438	28,242,849	28,922,585	28,004,829	31,301,194	33,301,790	30,483,467	29,801,004	29,489,285	30,440,938	358,234,919	31,956,029	29,146,272	31,339,774	29,404,331	29,692,928	30,221,441	34,039,244	33,495,162	31,068,900	31,165,818	31,051,199	32,163,711	374,744,809	34,314,077	31,120,592	
Unmetered	8,253,874	8,184,246	8,340,572	8,147,438	8,401,115	8,006,969	8,391,415	8,668,514	8,589,709	8,207,505	99,505,163	8,386,451	8,309,302	8,628,597	8,397,121	8,658,306	8,425,750	8,526,325	8,514,673	8,670,022	8,430,336	8,696,511	8,461,007	102,104,401	8,642,226	8,399,053	
Small Industrial	20,155,930	17,227,750	21,353,468	18,912,160	21,091,270	19,198,644	21,585,520	16,917,345	20,275,536	18,315,452	235,403,342	22,487,962	19,833,402	20,971,972	18,072,304	21,084,628	18,491,645	23,296,508	19,226,843	20,798,694	17,256,414	19,682,762	17,134,892	238,338,026	23,291,206	18,960,968	
Medium Industrial	40,163,158	44,141,825	46,349,667	44,806,861	44,637,750	45,858,120	46,121,228	44,853,216	47,509,795	45,250,657	531,376,536	46,631,369	48,406,744	44,928,225	45,224,820	45,887,395	46,524,242	46,513,785	45,330,819	49,608,641	46,474,004	48,191,378	43,864,758	557,586,180	48,592,698	45,082,294	
Large Industrial	22,642,993	24,115,399	23,149,179	26,064,199	27,149,663	28,529,626	25,718,743	26,344,318	26,771,612	26,588,910	291,842,324	28,014,363	23,200,864	26,429,489	25,840,826	27,303,795	26,178,965	28,411,768	30,745,532	28,652,437	27,238,113	28,374,689	29,267,216	329,658,057	31,046,026	27,665,252	
Load Retention	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOU - Real-time price	6,523,654	7,854,167	5,259,546	10,904,798	6,272,616	6,412,391	7,977,557	7,810,550	9,192,938	6,802,930	84,951,420	5,866,256	8,049,787	827,448	1,211,753	982,673	1,227,898	2,808,897	242,208	1,077,244	1,489,364	1,709,175	171,657	25,664,360	3,513,254	6,642,100	
2-P-RTP - CBL Base Cost	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lg.Ind.Interrupt.Rider	87,692,064	83,805,261	77,148,213	83,730,249	84,373,160	93,411,671	93,040,441	91,124,469	93,853,038	78,376,531	1,038,379,069	87,137,322	83,461,991	98,730,372	96,378,458	100,957,429	90,253,612	102,539,569	101,040,684	98,976,628	99,364,030	100,390,714	87,690,533	1,146,921,342	75,189,801	68,056,070	
Surplus Power Interruptible	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Indust.Expansion Interruptible	80,332,014	76,993,980	75,636,098	60,954,629	77,378,240	90,301,374	91,604,539	89,616,440	86,577,446	92,456,521	968,455,763	67,931,196	84,840,256	96,890,933	98,633,397	105,580,402	87,002,039	98,530,821	107,174,015	100,706,890	107,503,657	105,831,507	97,511,840	1,158,136,953	0	0	
TOD Industrial Expansion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Replacement/Load Following	33,913,302	31,399,463	37,315,004	39,092,127	47,656,963	48,375,126	43,609,145	34,565,105	30,743,136	29,803,651	443,955,346	31,529,885	23,708,934	26,142,733	25,525,519	29,048,234	36,496,327	41,500,637	40,362,884	33,969,781	34,790,135	31,136,211	30,649,155	384,860,435	15,455,201	14,175,550	
Extra Lg. Ind. Int.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	123,658,539	105,188,198
Extra Lg. Ind. Int. Buy Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25,042,894	
ELI - 2PT RTP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bowater Mersey	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	190,000,000	15,833,337	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	190,000,000	15,833,337	15,833,333
Mersey Additional Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bowater Expansion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Municipal	16,894,014	14,487,814	12,351,888	11,769,244	12,645,149	13,142,501	12,930,917	14,680,039	16,162,485	18,155,324	178,262,014	20,106,706	17,963,482	18,297,259	15,392,995	13,433,450	10,433,839	13,273,833	13,490,627	13,150,490	14,648,609	15,856,808	18,084,172	184,132,270	21,344,466	18,598,633	
Exports	44,752,000	61,812,000	94,532,000	57,382,000	23,838,000	43,347,000	41,484,000	35,399,000	33,243,000	20,004,000	509,570,000	11,432,000	11,124,000	16,089,000	32,921,000	31,124,000	29,696,000	64,149,000	60,380,000	10,479,000	26,073,000	7,296,000	9,583,750	310,346,750	2,578,090	1,905,500	
Total	993,534,562	976,763,579	1,002,326,349	890,819,716	836,085,572	883,362,984	871,889,439	842,566,476	908,333,701	940,304,684	11,144,288,568	1,039,456,130	1,083,207,569	1,066,288,232	1,018,173,340	994,255,495	901,791,049	931,245,038	929,617,940	855,666,271	871,267,577	871,019,333	906,389,486	11,468,377,460	1,067,275,163	1,102,332,415	

Monthly Billed Sales by Class (kWh)																																			
Class	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	2004	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	2005	Jan-06	Feb-06	Mar-06	Apr-06							
Residential	424,255,727	400,693,833	356,541,291	295,569,326	261,453,114	254,521,777	250,777,079	256,119,100	280,235,948	331,958,753	3,976,908,977	422,937,766	456,252,668	408,476,623	394,383,525	358,108,026	312,977,709	273,090,328	250,468,731	250,992,467	252,690,106	268,362,754	317,646,827	3,966,387,529	399,937,470	418,643,211	402,436,510	372,486,011							
Residential Time of Day	8,387,637	7,657,322	5,850,390	4,485,270	3,006,003	2,525,296	2,394,177	2,840,282	4,109,587	6,217,796		8,144,458	10,712,411	8,880,440	8,711,337	6,857,662	5,573,685	3,725,056	2,875,626	2,735,192	3,058,033	4,526,692	6,717,580		9,713,212	10,753,849	10,845,592	9,896,898							
Small General	17,328,030	15,602,637	14,071,602	11,400,534	12,261,818	12,407,190	12,771,455	11,657,043	12,838,395	13,895,356	164,678,820	21,413,691	23,873,402	23,692,514	21,602,635	19,688,543	17,310,319	17,919,684	17,189,404	17,940,994	16,272,386	16,927,271	18,370,564	232,201,407	23,775,765	22,301,210	24,578,696	20,774,123							
General	227,889,347	217,799,540	193,734,621	176,280,526	190,268,030	188,657,063	192,604,630	182,325,812	186,018,223	202,544,025	2,426,350,536	231,246,220	223,119,492	210,653,160	214,117,900	187,361,239	188,385,623	187,467,877	187,126,085	194,007,658	181,298,532	183,181,705	193,306,887	2,381,272,378	220,576,985	214,369,484	214,908,103	202,163,984							
Large General	35,746,584	31,533,264	31,000,161	27,875,580	34,170,806	41,478,901	33,447,928	33,730,183	32,889,871	34,138,631	401,446,578	35,428,727	31,639,399	34,514,464	32,715,888	32,757,488	33,453,843	36,678,923	37,810,167	35,840,423	34,652,072	33,274,239	33,997,700	412,763,333	35,303,407	32,363,931	35,515,172	32,564,154							
Unmetered	8,784,908	8,490,187	9,752,051	8,546,325	8,944,590	8,478,330	8,995,015	8,587,459	8,918,889	8,522,343	105,061,375	9,203,579	8,576,618	9,282,176	8,796,622	9,134,239	8,750,363	9,075,016	9,021,743	9,190,700	8,944,257	9,308,275	8,907,426	108,191,014	9,137,449	8,887,818	9,273,921	9,070,312							
Small Industrial	22,080,214	18,885,531	20,175,151	17,511,788	22,332,580	18,144,325	21,812,572	17,556,697	19,710,663	18,713,921	239,175,614	23,459,194	19,515,115	21,729,634	19,022,587	20,006,109	19,171,124	22,939,665	18,447,609	22,287,248	17,321,383	19,332,540	17,876,451	241,108,655	23,191,121	19,058,372	21,319,613	18,374,912							
Medium Industrial	45,294,765	46,560,269	45,590,680	45,660,982	49,437,450	48,002,656	50,514,458	48,237,839	47,391,069	47,035,556	567,400,716	47,468,011	43,760,105	42,968,224	45,946,967	45,848,201	46,761,446	47,715,817	45,865,895	50,969,510	46,632,520	45,420,316	47,710,823	557,069,835	46,621,108	44,554,011	45,620,504	45,260,788							
Large Industrial	30,266,308	28,404,020	29,748,077	27,287,195	32,726,554	31,049,832	29,255,768	30,248,915	26,476,259	31,564,438	355,738,644	30,732,432	27,063,670	29,117,315	26,559,530	26,956,341	29,030,384	30,566,849	31,532,533	29,017,590	29,517,135	28,880,354	29,760,975	348,735,108	30,777,270	27,576,966	30,449,178	27,454,798							
Load Retention	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
TOU - Real-time price	1,635,651	828,412	2,762,825	2,134,636	2,113,384	2,199,782	1,758,115	8,179,924	8,674,692	8,183,163	48,625,938	0	0	0	0	9,959,777	(9,959,777)	0	0	0	0	0	0	0	0	0	0	0	0	0					
2-P-RTP - CBL Base Cost	0	0	0	0	0	0	0	0	0	0	0	18,182,747	16,903,819	20,642,361	101,162	42,490,741	20,296,003	20,498,243	17,294,372	20,753,033	19,245,505	20,347,993	16,941,245	233,697,224	9,833,742	8,167,794	9,762,419	10,998,505							
Lg.Ind.Interrupt.Rider	54,572,272	54,785,781	54,632,578	55,894,107	55,494,605	61,446,526	59,803,209	58,977,583	54,977,537	49,736,004	703,566,073	51,198,249	49,955,506	54,909,314	52,724,851	56,480,187	55,494,510	51,657,868	61,245,765	56,525,324	57,469,092	53,750,867	46,528,800	647,940,333	50,166,484	53,362,793	58,320,468	54,416,719							
Surplus Power Interruptible	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
Indust.Expansion Interruptible	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
TOD Industrial Expansion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
Replacement/Load Following	16,578,115	17,410,868	30,260,205	24,008,829	16,322,194	18,026,319	16,834,406	24,297,030	16,478,125	12,693,396	222,540,238	553,694	373,928	424,583	2,555,546	774,577	58,809	732,099	1,608,098	1,360,713	2,220,788	2,329,709	(155,275)	12,837,269	(305,873)	461,252	655,486	965,747							
Extra Lg. Ind. Int.	161,218,246	161,750,842	165,145,646	143,043,038	171,119,828	161,703,725	150,016,481	166,695,381	156,865,750	150,266,825	1,816,672,499	129,405,355	137,151,406	162,089,081	163,779,141	147,985,174	145,064,103	147,473,294	149,200,515	144,124,187	150,180,658	153,396,651	114,726,118	1,744,575,683	27,302,231	19,266,583	20,641,182	20,212,688							
Extra Lg. Ind. Int. Buy Through	5,012,794	(709,670)	2,921,345	1,710,907	638,217	0	8,003,557	1,849,661	3,547,000	5,138,562	53,155,267	9,246,255	17,181,328	594,933	180,000	506,170	2,545,039	8,213,451	405,000	953,555	5,960,339	200,000	596,688	46,582,758	0	30,000	60,000	0							
ELI - 2PT RTP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
Bowater Mersey	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	190,000,000	15,833,337	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,833,333	15,750,000	189,916,667	15,750,000	15,750,000	15,750,000	15,750,000
Mersey Additional Energy	0	0	0	0	0	0	0	0	0	0	0	15,144,910	12,173,830	15,144,910	14,406,667	15,414,667	14,406,667	15,414,667	15,414,667	14,406,667	15,414,667	14,406,667	15,498,000	177,246,986	15,498,000	12,474,000	15,498,000	14,490,000							
Bowater Expansion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Municipal	18,470,089	15,243,026	13,473,898	12,395,046	13,413,812	13,867,865	13,377,298	14,676,052	16,445,359	18,645,788	189,951,332	20,469,259	17,584,980	18,120,567	14,634,703	13,755,625	12,384,973	13,152,811	17,986,734	13,688,296	14,856,172	15,744,077	18,555,121	190,933,318	18,845,624	17,980,030	18,164,726	14,947,563							
Exports	4,164,290	14,705,310	18,453,480	21,555,840	8,946,490	11,916,000	16,791,000	20,954,000	16,769,000	38,563,000	177,302,000	7,270,000	6,209,000	12,661,000	5,115,000	1,302,000	9,757,000	5,518,000	12,245,000	15,156,000	18,662,000	14,027,000	36,686,000	144,608,000	51,064,000	18,130,000	39,181,000	40,791,000							
Total	1,097,518,309	1,055,474,505	1,009,947,334	891,193,262	898,482,808	890,258,919	884,990,481	902,766,294	908,179,700	993,650,890	11,702,070,079	1,097,338,884	1,117,880,010	1,089,735,632	1,051,147,170	991,300,545	937,254,932	907,672,981	891,571,277	895,782,890	890,228,977	899,250,442	939,421,930	11,708,585,669	987,187,994	944,131,304	972,980,570	910,618,202							

Monthly Billed Sales by Class (kWh)																													
Class	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	2006	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	2007	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	
Residential	333,814,158	297,323,966	263,777,495	253,764,377	248,687,244	252,290,030	272,578,414	307,805,148	3,823,544,034	396,079,093	461,188,068	447,697,640	409,399,812	362,622,636	309,496,956	266,265,169	251,805,382	250,700,809	248,307,053	284,908,675	344,481,786	4,032,953,078	428,927,353	460,069,600	430,579,482	395,262,566	365,846,360	304,423,623	
Residential Time of Day	7,683,932	6,090,404	4,123,885	3,506,779	3,556,298	4,069,839	5,776,014	7,790,980		11,416,940	14,334,444	14,992,819	13,326,877	10,672,457	8,061,923	5,447,793	4,289,124	4,189,172	4,641,571	7,239,489	10,789,204		15,427,364	17,130,790	16,308,439	15,152,269	12,180,629	9,055,420	
Small General	19,404,813	17,166,333	17,827,921	17,867,848	17,423,792	16,642,800	17,075,343	17,762,090	232,600,734	23,803,760	26,308,115	27,121,493	22,698,283	20,953,321	17,819,057	17,854,476	17,951,594	17,472,668	16,634,218	17,648,611	19,898,308	246,163,904	25,171,230	25,307,205	25,136,824	22,151,377	20,631,429	17,887,300	
General	186,319,857	186,964,956	193,871,599	193,839,363	188,490,365	182,551,945	187,393,852	191,304,982	2,362,755,475	223,504,053	239,996,284	228,754,539	217,070,667	198,801,672	193,747,684	191,360,845	195,282,150	190,876,327	186,388,330	199,166,107	205,978,222	2,470,926,880	233,460,804	238,354,098	218,188,983	216,735,933	199,814,018	187,982,119	
Large General	33,290,609	34,581,083	38,541,222	37,519,200	34,907,088	34,449,370	33,696,624	33,981,827	416,713,687	34,013,990	35,965,990	31,335,266	37,605,513	33,996,800	33,623,663	37,995,302	38,150,716	34,293,705	35,568,311	33,195,479	34,509,358	420,254,093	36,255,949	35,407,933	33,045,914	33,023,912	33,713,299	33,961,838	
Unmetered	9,215,104	9,039,498	9,404,272	8,980,357	9,394,332	8,984,531	9,344,459	9,016,465	109,748,518	9,585,080	9,058,626	9,484,459	9,353,021	9,641,787	9,039,693	9,613,670	9,031,657	9,486,294	8,965,201	9,568,417	9,099,927	111,927,832	9,374,637	8,704,302	9,654,303	9,164,814	9,645,076	9,162,644	
Small Industrial	19,260,619	18,904,897	23,186,226	20,003,449	21,637,804	17,348,187	19,713,998	17,923,180	239,922,375	23,974,938	20,902,792	21,848,375	19,146,261	20,909,352	19,015,837	22,496,603	19,755,667	22,304,547	17,825,548	21,116,529	18,808,535	248,104,982	23,822,136	21,500,862	22,704,911	19,707,902	21,912,028	19,341,842	
Medium Industrial	46,385,824	48,735,341	48,896,692	49,112,754	48,778,975	47,756,040	48,161,054	47,417,241	567,300,333	47,651,106	48,356,216	44,087,686	45,829,039	46,726,978	46,956,676	47,104,375	49,298,235	49,005,356	45,321,953	49,582,838	48,060,677	567,981,135	46,457,059	47,333,694	45,181,308	45,239,278	45,639,550	46,187,338	
Large Industrial	29,415,466	29,740,854	31,014,816	30,387,177	28,401,697	29,097,340	27,935,259	29,952,756	352,203,577	31,150,145	28,223,886	32,335,133	26,330,319	23,238,785	30,548,083	30,556,269	33,149,623	32,909,568	33,592,121	31,683,944	32,390,675	366,108,551	33,663,262	31,610,830	33,548,074	32,569,086	33,046,186	32,810,451	
Load Retention	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOU - Real-time price	0	0	0	0	0	1,177,005	1,789,014	0	2,966,019	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2-P-RTP - CBL Base Cost	8,566,655	12,604,000	10,759,486	12,297,955	11,136,958	10,894,334	10,192,318	0	115,214,166	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lg.Ind.Interrupt.Rider	56,220,106	57,083,992	56,491,812	65,282,541	60,676,724	53,569,120	51,885,080	44,756,006	662,231,845	50,051,421	47,958,777	47,786,160	48,896,691	51,858,429	51,230,679	52,783,167	58,062,561	54,199,049	53,953,552	55,207,623	45,938,311	617,926,420	50,312,242	48,596,278	48,306,635	48,146,171	51,517,206	52,280,545	
Surplus Power Interruptible	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Indust.Expansion Interruptible	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOD Industrial Expansion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Replacement/Load Following	1,197,299	636,530	1,170,962	2,299,057	1,914,561	1,748,795	2,102,276	(196,090)	12,650,002	135,881	998,486	2,327,491	2,932,281	7,909,084	(18,832)	1,144,629	312,216	(89,745)	765,370	2,044,552	1,082,785	19,544,198	356,321	(193,257)	649,878	136,169	1,249,015	(477,223)	
Extra Lg. Ind. Int.	20,220,572	19,522,833	21,282,167	21,104,995	15,390,453	94,015,370	113,952,813	0	392,911,887	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extra Lg. Ind. Int. Buy Through	0	0	0	0	0	0	0	0	90,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ELI - 2PT RTP	0	0	0	0	0	0	0	159,336,247	159,336,247	170,404,460	131,250,354	177,022,742	175,364,480	178,461,331	156,239,176	177,205,097	176,995,183	168,325,703	173,580,270	172,902,926	145,715,581	2,003,467,303	164,946,155	161,295,991	180,623,321	165,979,270	153,443,267	165,640,365	
Bowater Mersey	15,750,000	15,750,000	15,750,000	15,750,000	15,750,000	15,750,000	15,750,000	15,750,000	189,000,000	15,750,000	15,750,000	15,750,000	15,750,000	15,750,000	15,750,000	15,750,000	15,750,000	15,750,000	15,750,000	15,750,000	189,000,000	15,750,000	15,750,000	15,750,000	15,750,000	15,750,000	15,750,000	15,750,000	
Mersey Additional Energy	15,498,000	14,490,000	15,498,000	15,498,000	14,490,000	15,498,000	14,490,000	15,498,000	178,920,000	15,498,000	12,474,000	15,456,000	14,490,000	15,498,000	14,490,000	15,498,000	15,498,000	14,490,000	15,498,000	14,532,000	15,498,000	178,920,000	15,498,000	13,482,000	15,456,000	14,490,000	15,498,000	14,490,000	
Bowater Expansion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Municipal	13,274,005	13,036,876	13,947,414	13,629,748	13,788,424	15,149,118	15,854,770	18,625,453	187,243,751	20,474,430	19,343,837	18,152,837	16,357,978	14,258,584	13,115,425	14,329,168	14,324,177	13,843,935	15,092,590	17,093,255	20,731,255	197,117,471	20,772,545	19,212,583	19,770,288	15,753,564	14,386,048	13,048,489	
Exports	49,749,000	51,991,000	36,672,000	51,041,000	28,218,000	17,694,000	14,084,000	7,521,000	406,136,000	1,454,000	1,978,000	5,033,000	2,539,000	2,866,000	6,577,000	5,457,000	9,717,000	5,443,000	13,879,000	3,860,000	637,000	59,440,000	0	62,000	496,000	3,731,000	10,622,000	2,530,000	
Total	865,266,019	833,662,562	802,215,970	811,884,600	762,642,715	818,685,824	861,775,288	924,245,285	10,495,296,332	1,074,947,297	1,114,087,875	1,139,185,640	1,077,090,221	1,014,165,216	925,693,019	910,861,563	909,373,286	883,200,388	885,763,087	935,500,445	969,369,624	11,839,237,661	1,120,195,056	1,143,624,908	1,115,400,360	1,052,993,310	1,004,894,111	924,074,751	

Monthly Billed Sales by Class (kWh)																													
Class	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08	2008	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	2009	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	
Residential	252,973,818	266,208,049	256,321,518	255,901,768	281,803,152	329,580,440	4,027,897,728	443,493,493	484,523,212	443,923,793	397,982,946	354,768,743	290,492,646	263,052,454	263,625,795	257,191,630	260,804,646	298,658,893	329,984,938	4,088,503,189	430,243,130	463,413,443	421,737,631	383,635,847	338,468,670	283,136,065	265,958,709	258,484,842	
Residential Time of Day	5,939,880	5,313,389	5,000,469	5,848,311	8,605,303	12,044,711		18,498,553	21,853,158	20,802,550	17,977,637	13,666,610	10,251,354	7,243,462	6,465,966	6,047,716	7,370,963	11,207,501	14,407,724		20,481,095	23,798,257	21,303,017	18,926,771	14,291,666	11,005,859	8,058,845	7,044,867	
Small General	16,118,234	19,588,476	16,793,313	15,796,064	16,764,755	17,802,576	239,148,783	25,031,051	24,949,801	25,341,832	21,555,121	19,784,161	16,579,583	17,216,018	17,622,558	17,361,678	16,320,218	17,390,779	17,928,296	237,081,097	24,445,891	24,461,492	24,150,893	21,062,727	19,108,819	16,567,273	17,601,651	17,874,119	
General	175,540,585	219,964,666	192,249,494	184,668,278	192,103,260	203,502,612	2,462,564,850	241,449,755	239,906,379	221,779,351	218,982,497	191,355,824	183,269,472	193,600,889	198,234,352	188,686,796	187,639,388	195,038,537	198,510,488	2,458,453,728	238,996,932	225,795,203	222,093,623	222,176,508	186,755,336	185,374,318	194,812,636	197,501,296	
Large General	39,994,276	37,648,428	34,830,025	34,249,753	33,343,966	33,619,079	419,094,372	37,196,094	32,137,378	35,925,474	32,875,818	32,462,874	34,361,210	37,683,671	39,019,662	34,475,797	33,651,137	32,875,757	34,002,341	416,667,213	35,384,085	32,478,840	35,044,783	32,099,840	32,388,681	33,923,432	39,029,802	38,507,362	
Unmetered	9,343,573	9,524,789	9,583,141	9,244,800	9,651,925	9,265,267	112,319,271	9,614,866	9,117,602	8,908,955	9,351,310	9,466,098	9,239,665	9,672,816	9,238,422	9,540,525	9,174,998	9,395,344	9,243,222	111,963,824	9,638,623	9,318,046	9,604,989	9,383,340	9,617,088	9,189,264	9,583,239	9,223,392	
Small Industrial	19,191,620	25,017,296	22,790,049	18,172,297	20,572,610	19,717,815	254,451,364	25,665,212	20,791,973	22,700,301	20,317,071	21,186,943	19,059,558	23,751,581	20,240,342	21,307,291	17,607,140	20,610,095	19,372,675	252,610,181	25,630,869	20,560,751	23,001,882	20,845,960	21,650,503	19,531,340	23,240,348	20,066,807	
Medium Industrial	41,242,019	50,297,821	44,911,194	43,291,088	42,876,655	40,776,157	539,433,161	44,973,801	40,662,113	37,762,044	40,787,805	40,729,223	39,810,827	42,376,132	40,262,549	40,553,809	41,091,448	42,008,520	41,017,348	492,035,619	42,028,917	39,439,436	39,594,628	39,932,763	39,179,922	40,757,980	44,630,742	42,378,104	
Large Industrial	33,628,031	32,571,256	31,865,773	32,589,160	31,608,993	28,163,101	387,674,203	36,196,529	29,258,053	32,419,119	51,283,456	31,285,819	27,177,527	28,541,883	28,407,156	28,905,583	30,181,144	30,729,744	29,704,663	384,090,676	31,394,049	27,423,176	31,070,075	29,515,196	29,665,867	23,665,653	29,575,416	28,007,193	
Load Retention	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOU - Real-time price	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-P-RTP - CBL Base Cost	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lg.Ind.Interrupt.Rider	52,441,311	59,001,441	56,005,071	54,138,781	49,609,077	38,001,700	608,356,458	44,591,749	41,059,233	40,934,084	17,951,716	42,233,271	44,506,978	46,705,550	51,249,474	49,513,342	49,399,152	48,954,086	39,411,337	516,509,972	43,753,605	40,382,630	45,788,415	46,461,689	49,510,815	49,700,704	48,853,455	59,318,699	
Surplus Power Interruptible	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Indust.Expansion Interruptible	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOD Industrial Expansion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Replacement/Load Following	2,468,761	541,336	2,658,551	840,566	1,055,298	1,317,591	10,603,006	203,889	1,467,042	(35,154)	(182,488)	(81,599)	3,126,259	(407,311)	181,544	(9,240)	1,662,722	171,302	200,343	6,297,309	990,072	1,221,360	70,166	1,461,992	3,019,161	576,793	1,591,343	2,833,973	
Extra Lg. Ind. Int.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extra Lg. Ind. Int. Buy Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ELI - 2PT RTP	171,263,072	174,381,749	166,506,947	175,663,113	165,973,443	130,526,162	1,976,242,855	102,742,698	137,643,888	109,875,907	105,068,957	178,836,636	135,353,264	141,524,429	165,461,704	124,910,866	169,638,634	164,441,757	159,361,750	1,694,860,490	166,131,263	146,348,926	157,914,428	144,613,092	145,879,901	150,584,997	174,491,163	168,673,022	
Bowater Mersey	15,750,000	15,750,000	15,750,000	15,750,000	15,750,000	16,716,000	189,966,000	7,100,124	18,816,000	10,964,097	9,397,343	20,831,083	6,171,370	11,987,717	20,773,628	5,455,720	18,462,596	20,114,065	19,569,843	169,643,586	15,750,000	15,750,000	15,750,000	13,943,805	15,356,339	17,945,157	15,750,000	15,750,000	
Mersey Additional Energy	15,498,000	15,498,000	15,498,000	14,490,000	14,532,000	14,532,000	178,962,000	8,233,286	9,408,000	15,456,000	14,490,000	10,416,917	6,315,940	10,416,000	10,416,000	5,472,113	10,416,000	10,094,000	10,416,000	121,550,256	15,498,000	12,474,000	15,456,000	10,080,000	10,416,000	12,290,144	15,498,000	15,498,000	
Bowater Expansion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Municipal	14,993,067	14,319,242	14,091,515	15,454,849	16,835,271	18,822,786	197,460,247	22,529,292	18,864,297	19,542,436	15,620,202	13,877,615	13,157,227	14,205,953	14,617,116	13,747,961	16,310,027	15,736,429	19,911,974	198,120,529	20,847,939	18,950,053	18,459,219	13,291,070	13,891,129	13,116,932	14,512,395	14,291,664	
Exports	935,000	302,000	1,361,000	516,000	691,000	2,560,000	23,806,000	6,443,000	878,000	3,809,000	4,608,000	1,214,000		123,000		451,000		621,000		18,147,000	1,263,000	0	92,000	190,000	329,000	1,040,000	242,000		
Total	867,321,247	945,927,937	886,216,060	876,614,828	901,776,708	916,947,997	11,755,987,272	1,073,963,392	1,131,336,129	1,050,109,790	978,067,391	982,034,218	838,872,879	847,694,244	885,816,268	803,612,587	869,730,212	917,426,809	943,663,942	11,322,327,863	1,122,477,470	1,101,815,612	1,081,131,749	1,007,430,600	929,389,897	867,694,911	904,227,744	895,695,341	

Monthly Billed Sales by Class (kWh)																						
Class	Sep-10	Oct-10	Nov-10	Dec-10	2010	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	2011	Jan-12	Feb-12	Mar-12	Q1 2012
Residential	258,160,656	257,657,355	285,636,321	331,421,432	3,977,954,101	429,654,140	460,660,726	440,831,014	402,743,142	373,374,872	322,866,927	270,549,499	254,672,044	262,060,451	261,275,068	282,215,218	323,772,698	4,084,675,800	418,821,103	455,459,897	434,626,532	1,308,907,532
Residential Time of Day	6,635,288	7,649,728	11,267,029	15,741,908		21,876,709	26,112,308	25,017,454	22,370,329	18,217,597	14,312,028	9,616,611	7,956,142	7,768,851	8,417,893	12,022,078	16,386,991		23,654,768	27,794,368	26,377,109	77,826,245
Small General	17,546,163	16,485,295	16,813,775	18,849,309	234,967,407	24,648,913	24,880,964	26,166,302	22,256,448	21,700,337	18,123,349	17,531,929	16,914,246	17,946,974	16,596,798	16,256,063	17,520,902	240,543,225	23,592,661	24,348,733	25,208,122	73,149,516
General	194,395,987	187,976,408	186,761,137	204,431,403	2,447,070,787	234,921,771	229,015,567	220,685,704	214,435,964	201,270,344	189,523,468	187,680,724	189,197,990	195,961,987	191,868,543	186,953,626	206,254,965	2,447,770,653	224,622,926	232,762,209	221,039,316	678,424,451
Large General	35,795,202	34,087,314	33,679,634	33,699,809	416,118,784	35,096,557	30,777,495	37,224,786	32,404,250	33,505,033	33,139,815	37,969,360	38,383,819	35,811,295	34,843,162	32,562,354	33,174,916	414,892,842	34,935,927	32,873,646	34,269,308	102,078,881
Unmetered	9,585,889	9,311,160	9,550,402	9,288,768	113,294,200	9,755,234	9,370,549	9,527,843	9,266,321	9,637,052	9,296,886	9,712,818	9,124,349	9,667,562	9,265,745	9,644,067	9,175,420	113,443,848	9,585,553	9,240,226	9,055,938	27,881,717
Small Industrial	21,933,611	18,173,558	19,740,658	20,004,920	254,381,204	25,204,905	22,532,189	23,539,996	20,726,575	20,967,668	19,855,046	22,971,606	18,455,816	21,985,685	17,507,920	19,815,817	19,716,146	253,279,366	24,901,704	21,602,455	22,909,832	69,413,991
Medium Industrial	42,940,244	40,551,947	40,365,071	43,075,307	494,875,061	40,455,002	41,185,249	39,473,410	41,483,651	39,017,337	40,659,593	41,768,991	38,999,177	43,146,469	40,704,106	42,127,213	42,731,903	491,752,101	42,446,610	42,302,526	40,729,912	125,479,048
Large Industrial	28,251,280	30,390,062	29,331,582	29,951,777	348,241,326	31,072,570	27,981,014	31,408,095	28,668,434	31,154,495	29,565,555	28,021,567	26,195,303	28,943,640	29,197,724	29,271,892	27,982,793	349,463,082	29,201,393	27,592,075	29,180,244	85,973,712
Load Retention	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,489,827	28,071,228	7,081,982	36,643,037
TOU - Real-time price	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-P-RTP - CBL Base Cost	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lg.Ind.Interrupt.Rider	52,731,402	52,140,525	49,070,986	43,066,083	580,779,010	46,340,999	44,794,154	46,129,915	46,944,278	45,493,972	47,886,989	48,990,466	53,204,078	51,893,203	48,292,757	48,048,674	37,757,088	565,776,573	48,079,511	43,520,357	45,511,241	137,111,110
Surplus Power Interruptible	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Indust.Expansion Interruptible	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOD Industrial Expansion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Replacement/Load Following	6,689,314	1,466,770	1,309,936	(858,505)	20,372,375	(454,390)	(212,701)	(204,956)	97,033	1,811,286	(59,875)	2,008,272	1,500,760	589,830	2,739,820	9,915,769	(667,663)	17,063,185	(194,887)	346,017	(295,555)	(144,425)
Extra Lg. Ind. Int.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extra Lg. Ind. Int. Buy Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ELI - 2PT RTP	159,664,013	155,356,585	129,946,661	157,473,739	1,857,077,790	159,693,344	150,509,400	169,463,371	169,151,051	178,375,532	156,522,315	178,918,489	163,566,049	85,857,834	25,729,147	19,565,350	17,368,086	1,474,719,968	0	0	0	0
Bowater Mersey	15,750,000	15,750,000	15,750,000	15,750,000	188,995,301	15,750,000	15,750,000	15,750,000	15,750,000	15,750,000	15,750,000	15,750,000	15,750,000	15,750,000	15,750,000	15,538,546	15,961,454	189,000,000	11,736,923	19,397,361	11,656,607	42,790,891
Mersey Additional Energy	14,490,000	15,498,000	14,532,000	15,498,000	167,228,144	15,498,000	12,474,000	15,456,000	14,490,000	15,498,000	14,490,000	15,498,000	15,498,000	14,490,000	15,498,000	10,094,000	15,286,546	174,270,546	15,498,000	9,744,000	10,402,000	35,644,000
Bowater Expansion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Municipal	13,950,220	15,078,518	17,317,098	19,469,831	193,176,068	20,421,066	19,292,747	19,378,649	15,767,063	14,060,408	12,650,029	13,607,616	13,564,379	13,258,088	15,256,829	15,816,503	18,272,911	191,346,288	20,165,455	19,771,924	17,927,378	57,864,757
Exports	0	300,000	278,000	2,054,000	5,788,000	208,000	60,000	350,000	50,000	176,000	1,076,000	1,076,000	1,230,000	276,000	966,000	3,152,000	1,419,000	8,963,000	1,548,000	1,489,000	923,000	3,960,000
Total	878,519,269	857,873,225	861,350,289	958,917,780	11,466,523,887	1,110,142,821	1,115,183,660	1,120,197,583	1,056,604,539	1,020,009,933	924,582,125	901,671,948	864,212,152	805,407,869	733,909,513	752,999,170	802,114,157	11,207,035,468	930,085,475	996,316,022	936,602,966	2,863,004,463

Annual Billed Sales by Class (kWh)

Class	1994	1995
Residential	3,407,433,000	3,372,893,000
Residential Time of Day	-	-
Small General	87,225,000	84,309,000
General	2,049,434,000	2,046,612,000
Large General	321,314,000	342,159,000
Unmetered	87,146,000	88,977,000
Small Industrial	139,322,000	147,489,000
Medium Industrial	388,996,000	382,095,000
Large Industrial	208,985,000	222,011,000
Load Retention	-	-
TOU - Real-time price	-	-
2-P-RTP - CBL Base Cost	-	-
Lg.Ind.Interrupt.Rider	1,147,495,000	1,257,332,000
Surplus Power Interruptible	-	-
Indust.Expansion Interruptible	-	-
TOD Industrial Expansion	-	-
Replacement/Load Following	222,317,000	229,472,000
Extra Lg. Ind. Int.	-	-
Extra Lg. Ind. Int. Buy Through	-	-
ELI - 2PT RTP	-	-
Bowater Mersey	606,966,000	584,094,000
Mersey Additional Energy	-	-
Bowater Expansion		
Municipal	262,701,000	260,098,000
Total	8,929,334,000	9,017,541,000

**Number of Residential
Customers by Type**

	Jan-98	Feb-98	Mar-98	Apr-98	May-98	Jun-98	Jul-98	Aug-98	Sep-98	Oct-98
Regular	273,468	273,561	273,311	273,262	273,441	273,574	273,855	274,293	275,036	275,408
All Electric	86,525	86,647	86,596	86,487	86,377	86,281	86,290	86,319	86,471	86,541
TOD	35	42	44	44	49	50	51	54	62	67

**Number of Residential
Customers by Type**

	Nov-98	Dec-98	Jan-99	Feb-99	Mar-99	Apr-99	May-99	Jun-99	Jul-99	Aug-99
Regular	275,554	275,644	275,823	275,945	275,779	275,893	276,004	276,380	276,700	277,211
All Electric	86,575	86,662	86,766	86,827	86,782	86,705	86,627	86,603	86,612	86,685
TOD	76	84	96	114	131	145	158	172	187	197

**Number of Residential
Customers by Type**

	Sep-99	Oct-99	Nov-99	Dec-99	Jan-00	Feb-00	Mar-00	Apr-00	May-00	Jun-00
Regular	277,912	278,284	278,566	278,697	278,898	279,010	279,215	279,295	279,275	279,588
All Electric	86,793	86,860	86,846	86,841	86,881	86,907	86,984	86,902	86,792	86,785
TOD	212	230	269	299	316	329	339	348	359	368

**Number of Residential
Customers by Type**

	Jul-00	Aug-00	Sep-00	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01
Regular	279,714	280,121	280,911	281,144	281,280	281,352	281,300	281,409	281,077	280,800
All Electric	86,780	86,818	86,951	86,986	86,993	86,969	86,993	86,991	86,936	86,945
TOD	374	382	397	438	507	615	696	758	881	967

**Number of Residential
Customers by Type**

	May-01	Jun-01	Jul-01	Aug-01	Sep-01	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02
Regular	280,542	280,719	280,893	281,375	281,980	282,029	282,300	299,954	302,947	302,956
All Electric	86,959	87,013	87,066	87,267	87,395	87,439	87,557	70,018	70,639	70,762
TOD	1,046	1,095	1,143	1,189	1,269	1,381	1,493	1,586	1,683	1,719

**Number of Residential
Customers by Type**

	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02	Oct-02	Nov-02	Dec-02
Regular	303,080	303,048	303,204	303,293	303,388	303,961	304,309	304,470	304,631	304,782
All Electric	70,921	70,944	71,059	71,192	71,277	71,529	71,702	71,835	72,021	72,128
TOD	1,746	1,763	1,779	1,800	1,811	1,827	1,854	1,884	1,923	1,970

**Number of Residential
Customers by Type**

	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03
Regular	304,947	304,981	304,983	304,888	304,963	305,096	305,252	305,932	306,199	306,198
All Electric	72,339	72,484	72,541	72,551	72,619	72,740	72,864	73,083	73,233	73,280
TOD	2,003	2,025	2,045	2,061	2,077	2,086	2,092	2,103	2,128	2,149

**Number of Residential
Customers by Type**

	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04
Regular	306,455	306,557	306,857	306,959	307,097	307,030	306,945	307,003	307,296	307,551
All Electric	73,486	73,627	73,788	73,896	73,984	74,045	74,100	74,217	74,383	74,503
TOD	2,194	2,254	2,280	2,303	2,331	2,336	2,330	2,346	2,359	2,371

**Number of Residential
Customers by Type**

	Sep-04	Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05
Regular	308,116	308,425	308,633	308,933	309,183	309,080	309,010	308,839	308,610	308,536
All Electric	74,846	75,004	75,095	75,312	75,496	75,694	75,769	75,875	75,909	76,135
TOD	2,408	2,472	2,517	2,572	2,607	2,640	2,679	2,711	2,726	2,765

**Number of Residential
Customers by Type**

	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06
Regular	308,671	310,472	312,445	312,459	312,625	312,704	312,843	312,770	312,767	312,769
All Electric	76,364	76,625	76,977	77,176	77,390	77,557	77,825	78,028	78,200	78,342
TOD	2,802	2,830	2,873	2,972	3,094	3,196	3,254	3,306	3,366	3,396

**Number of Residential
Customers by Type**

	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07
Regular	312,456	312,466	312,384	312,566	312,982	312,957	313,167	313,389	313,426	312,722
All Electric	78,435	78,621	78,812	79,131	79,461	79,689	79,954	80,204	80,472	81,300
TOD	3,432	3,458	3,495	3,527	3,595	3,671	3,778	3,853	3,915	3,975

**Number of Residential
Customers by Type**

	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07
Regular	310,877	310,553	310,359	310,326	310,337	310,693	310,635	308,387	308,642	308,790
All Electric	83,303	83,477	83,800	83,976	83,797	84,468	85,085	87,533	87,740	87,930
TOD	4,032	4,073	4,107	4,135	4,106	4,190	4,246	4,357	4,443	4,540

**Number of Residential
Customers by Type**

	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08
Regular	308,882	307,196	306,932	306,516	305,862	305,820	305,674	306,083	306,248	306,307
All Electric	88,238	90,119	90,585	90,845	91,631	91,782	91,924	92,219	92,476	92,687
TOD	4,607	4,675	4,714	4,765	4,808	4,857	4,941	4,999	5,093	5,239

**Number of Residential
Customers by Type**

	Nov-08	Dec-08	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09
Regular	306,368	306,582	306,267	305,229	304,759	304,467	304,315	304,081	304,383	304,667
All Electric	92,924	93,030	93,583	94,698	95,249	95,267	95,320	95,442	95,571	95,743
TOD	5,422	5,581	5,689	5,774	5,844	5,919	5,978	6,008	6,054	6,101

**Number of Residential
Customers by Type**

	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
Regular	304,838	305,059	305,117	305,371	305,370	305,160	305,134	304,909	304,827	304,116
All Electric	95,949	96,224	96,417	96,656	96,953	97,342	97,483	97,545	97,694	98,678
TOD	6,190	6,317	6,416	6,519	6,618	6,691	6,744	6,802	6,840	6,881

**Number of Residential
Customers by Type**

	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Apr-11
Regular	304,164	304,354	304,509	304,654	304,565	304,538	304,642	304,605	304,437	304,317
All Electric	98,820	99,006	99,347	99,605	99,893	100,184	100,546	100,768	100,990	101,151
TOD	6,919	6,974	7,026	7,139	7,255	7,364	7,446	7,490	7,560	7,618

**Number of Residential
Customers by Type**

	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12
Regular	304,068	303,994	304,058	304,074	304,370	304,420	304,524	304,564	304,564	304,091
All Electric	101,279	101,438	101,698	101,928	102,241	102,461	102,796	102,971	102,971	103,828
TOD	7,678	7,710	7,752	7,781	7,859	7,968	8,073	8,200	8,200	8,341

**Number of Residential
Customers by Type**

	Mar-12
Regular	303,929
All Electric	104,281
TOD	8,385

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1 **Request IR-3:**

2
3 **Electric Space Heat**

- 4 **a. Please provide space heat saturation information that is available for new home**
5 **construction.**
- 6 **b. What information is available regarding electrical load for newer homes compared**
7 **to previous ones, or for heat pump versus on-demand, or for ToD vs. on-demand?**
- 8 **c. What information is available regarding the historic use of supplemental electric**
9 **heat for non-electric space heat customers?**
- 10 **d. Have any calculations been made on how much that supplemental use contributes to**
11 **monthly loads? If so please provide those calculations and results.**

12 **Econometric Model Implementation**

- 13 **a. How have the econometric models been calibrated? Please provide the results of**
14 **that calibration.**
- 15 **b. Please provide full results of the regression analyses used to develop the econometric**
16 **forecasts.**
- 17 **c. What were the reasons for choosing the particular form of the electric space heat**
18 **model?**
- 19 **d. Provide full results of any alternative econometric models that were investigated. If**
20 **no alternative models were investigated please explain why they were not.**

21
22 **Response IR-3:**

- 23
24 (a) NS Power reviews wiring inspection data for information on heating systems for new
25 home construction. The following table indicates the annual percentage of new homes by
26 space heat source.
27

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New Home Construction				
Residential - Space Heat Market Share				
Year	Oil	Natural Gas	Other	Electric
2006	30%	1%	3%	66%
2007	19%	3%	3%	75%
2008	13%	2%	3%	81%
2009	9%	3%	4%	84%
2010	9%	4%	4%	84%
2011	6%	4%	3%	87%

1
 2 (b) NS Power does not have this information. The average load for customers on the Time
 3 of Day (ToD) rate can be estimated since they are billed under a separate rate however,
 4 all other residential customers are grouped together.

5
 6 (c) NS Power does not have this information.

7
 8 (d) No.

9
 10 (e) Once the preferred econometric model has been selected with acceptable fit statistics, the
 11 econometric regression models are calibrated such that the model results pass through the
 12 final year of actual data. This amount is referred to as a model launch adjustment and is
 13 fixed for the future period of the models. These adjustment amounts are shown in the
 14 Load Forecast Report SR-02 Appendix A of the Application below the tables of model
 15 input variables and contributions. These calibration adjustments are as shown below:
 16

Model	Launch Adjustment (GWh)
Residential	0.8
Commercial	-57.5
Small Industrial	-3.5
Medium Industrial	-21.5

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- (f) Please refer to Attachment 1 for the results of the regression analysis for the econometric models.

- (g) The electric space heat model makes use of two available inputs (the price of electricity and the price of home heating oil) which are considered to influence the choice of heating system when the consumer is faced with the decision to select or upgrade their heating system. This method has been satisfactorily employed in the load forecast for many years. Improvements or changes to this model would require additional historical and predicted data inputs which NS Power does not have.

- (h) Many alternative model structures were tested using the large selection of available data for each of the sectors. The application that NS Power uses to develop the econometric models (ForecastPRO) allows one to easily and quickly create and test regression equations until a satisfactory model is determined. Unfortunately, the new version of this forecasting software does not retain the logging feature which keeps past modeling trials in a data file.

Forecast Report for DomEng (Residential sector econometric model)
Model Details

Dynamic regression
Regression(5 regressors, 0 lagged errors)

Term	Coefficient	Std. Error	t-Statistic	Percentile
AIDX	363.2	83.72	4.338	0.9994
CUSTHDD	0.2470	0.02968	8.323	1.000
RRCGOODS	0.09636	0.03671	2.625	0.9809
RREP	-41.97	17.44	-2.406	0.9705
DomEng1	0.4979	0.1111	4.480	0.9996

Within-Sample Statistics

Sample size	20	No. parameters	5
Mean	3847.60	Std. deviation	323.35
Adj. R-square	0.99	Durbin-Watson	2.64
Ljung-Box(10)	13.5 P=0.80	Forecast error	34.62
BIC	43.59	MAPE	0.57%
MAD	21.68		

Variable specification test battery

Term	Test Value	Percentile
AIDX[-1]	0.320	0.428
CUSTHDD[-1]	0.081	0.224
RRCGOODS[-1]	0.387	0.466
RREP[-1]	0.237	0.374
DomEng1[-1]	0.400	0.473
_CONST	0.307	0.421
_TREND	1.520	0.782

Dynamics tests successful.

Dynamics test battery

Term	Test Value	Percentile
DomEng[-1]	0.022	0.119
DomEng[-2]	0.127	0.279
_AUTO[-1]	1.912	0.833
_AUTO[-2]	0.277	0.402

Variable specification tests successful.

Forecast Data

Date	2.5 Lower	Forecast	Annual	97.5 Upper
2012	4384.13	4442.88	4442.88	4501.64
2013	4413.99	4472.75	4472.75	4531.50
2014	4484.08	4542.83	4542.83	4601.59
2015	4557.80	4616.56	4616.56	4675.31

2016	4626.03	4684.79	4684.79	4743.55
2017	4690.09	4748.85	4748.85	4807.60
2018	4743.32	4802.08	4802.08	4860.83
2019	4824.15	4882.91	4882.91	4941.66
2020	4890.72	4949.48	4949.48	5008.23
2021	4955.90	5014.65	5014.65	5073.41
2022	5016.15	5074.91	5074.91	5133.66
2023	5091.85	5150.61	5150.61	5209.36
Total		57383.28		
Average		4781.94		
Minimum		4442.88		
Maximum		5150.61		

Forecast Report for ComEng (Commercial sector econometric model)

Model Details

Dynamic regression

Regression(3 regressors, 0 lagged errors)

Term	Coefficient	Std. Error	t-Statistic	Percentile
RQSRS	0.05947	0.01767	3.365	0.9963
ComEng[-1]	0.5015	0.1414	3.547	0.9975
HDD	0.1129	0.02903	3.891	0.9988

Within-Sample Statistics

Sample size	20	No. parameters	3
Mean	2980.21	Std. deviation	278.70
Adj. R-square	0.98	Durbin-Watson	1.49
Ljung-Box(12)	9.1 P=0.31	Forecast error	37.43
BIC	43.21	MAPE	0.96%
MAD	29.49		

Variable specification test battery

Term	Test Value	Percentile
RQSRS[-1]	0.683	0.591
HDD[-1]	0.323	0.430
_CONST	0.191	0.338
_TREND	0.446	0.496

Dynamics tests successful.

Dynamics test battery

Term	Test Value	Percentile
ComEng[-1]	0.000	0.000
ComEng[-2]	0.121	0.272
_AUTO[-1]	0.725	0.606
_AUTO[-2]	0.825	0.636

Variable specification tests successful.

Forecast Data

Date	2.5 Lower	Forecast	Annual	97.5 Upper
2012	3341.12	3408.76	3408.76	3476.41
2013	3406.04	3481.71	3481.71	3557.38
2014	3461.46	3539.02	3539.02	3616.58
2015	3509.51	3587.54	3587.54	3665.57
2016	3549.78	3627.92	3627.92	3706.07
2017	3587.61	3665.78	3665.78	3743.95
2018	3624.68	3702.86	3702.86	3781.05
2019	3662.70	3740.88	3740.88	3819.07
2020	3700.81	3779.00	3779.00	3857.18
2021	3737.95	3816.14	3816.14	3894.32
2022	3771.54	3849.73	3849.73	3927.91
2023	3804.19	3882.38	3882.38	3960.56
Total		44081.73		
Average		3673.48		
Minimum		3408.76		
Maximum		3882.38		

Forecast Report for SMIND (Small Industrial econometric model)

Model Details

Dynamic regression
Regression(3 regressors, 0 lagged errors)

Term	Coefficient	Std. Error	t-Statistic	Percentile
RQTOS	0.004832	0.0007970	6.062	0.9999
SMIND[-1]	0.4507	0.08299	5.431	0.9998
RRINRBS	0.008804	0.002009	4.383	0.9991

Within-Sample Statistics

Sample size	15	No. parameters	3
Mean	231.25	Std. deviation	24.87
Adj. R-square	0.98	Durbin-Watson	1.82
Ljung-Box(7)	7.2 P=0.60	Forecast error	3.44
BIC	4.03	MAPE	1.03%
MAD	2.37		

Variable specification test battery

Term	Test Value	Percentile
RQTOS[-1]	0.246	0.380
RRINRBS[-1]	1.884	0.830
_CONST	3.031	0.918
_TREND	0.892	0.655

Dynamics tests successful.

Dynamics test battery

Term	Test Value	Percentile
SMIND[-1]	0.000	0.000
SMIND[-2]	0.382	0.463
_AUTO[-1]	2.525	0.888
_AUTO[-2]	3.333	0.932

Variable specification tests successful.

Forecast Report for MEDIND (Medium Industrial econometric model)

Dynamic regression
Regression(2 regressors, 0 lagged errors)

Term	Coefficient	Std. Error	t-Statistic	Percentile
RQMFS	0.08241	0.02164	3.808	0.9978
MEDIND[-1]	0.6025	0.1079	5.586	0.9999

Within-Sample Statistics

Sample size	15	No. parameters	2
Mean	509.54	Std. deviation	54.36
Adj. R-square	0.90	Durbin-Watson	1.33
Ljung-Box(8)	11.6 P=0.83	Forecast error	17.15
BIC	19.12	MAPE	2.68%
MAD	13.75		

Variable specification test battery

Term	Test Value	Percentile
RQMFS[-1]	0.621	0.569
_CONST	0.001	0.020
_TREND	3.515	0.939

Dynamics tests successful.

Dynamics test battery

Term	Test Value	Percentile
MEDIND[-1]	0.000	0.000
MEDIND[-2]	2.949	0.914
_AUTO[-1]	0.991	0.680
_AUTO[-2]	0.127	0.279

Variable specification tests successful.

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Request IR-4:

Forecast Results

- a. Please provide any analyses you've done comparing the current forecast to previous ones.
- b. Please explain why the current energy forecast (Figure B6) is higher even though the GDP (Figure B1) is lower.
- c. How does the current forecast reflect the possibility of possible paper mill closures?
- d. How will the recently awarded naval ship contract affect NSPI loads?

Response IR-4:

- (a) The following figure compares the new load forecast to the prior year and 2010-2011 actual sales.

Load Forecast Comparison					
Annual Energy (GWh)	Actual	Actual	Compliance	Forecast	
	2010	2011	2012GRA	2013GRA	2014GRA
Residential	3,976	4,083	4,155	4,059	4,032
Residential TOU	171	192	218	215	225
Residential Segment	4,147	4,275	4,373	4,273	4,257
Small General	232	239	219	231	229
General Demand	2,440	2,448	2,534	2,435	2,433
Large General	416	415	394	396	387
Commercial Segment	3,088	3,102	3,148	3,063	3,049
Small Industrial	254	254	262	258	260
Medium Industrial	491	492	513	499	513
Large Industrial	929	915	933	921	922
Mersey System	356	363	369	368	368
GR&LF	20	17	108	19	19
ELI Rate Bowater	317	318	369	322	322
ELI Rate NewPage	1,540	1,157	1,445	0	0

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Load Forecast Comparison					
Annual Energy (GWh)	Actual	Actual	Compliance	Forecast	
	2010	2011	2012GRA	2013GRA	2014GRA
Industrial Segment	3,908	3,516	3,999	2,387	2,404
Municipal	193	191	197	193	192
Unmetered	113	113	116	104	98
Other Segment	306	304	313	297	290
Total In Province Sales	11,449	11,197	11,833	10,020	10,000

1

2 (b) The forecast energy sales (Figure B6) are also lower than last year.

3

4 (c) Load estimates were gathered from the operators of the paper mills and included in the
 5 forecast. The Bowater mill assumed to be operating and the Port Hawkesbury mill is
 6 assumed to be not operating.

7

8 (d) The effects are included in the economic forecast used in the econometric models. The
 9 changes would influence all the econometric models, not just the industrial classes, due to
 10 the spin-off effects embedded in the other economic indicators. The Conference Board
 11 has advised that the effects of this ship contract have been offset by difficulties in the
 12 forestry sector.