

Load Factor Estimates

Summary of Load Factors by Class

	Estimated Non-Coincident Peak Load Factor	Estimated Coincident Peak Load Factor ¹
Rate #1.1 Domestic		
110 -Regular (see page 2 of 12)	51%	70%
112 - All Electric (see page 2 of 12)	39%	48%
Total (see page 2 of 12)	42%	52%
Rate #2.1 General Service 0-10 kW (see page 3 of 12)	35%	42%
Rate #2.2 General Service 10-100 kW (110 kVA) (see page 3 of 12)	38%	45%
Rate #2.3 General Service 110-1000 kVA		
110-350 kVA (see page 9 of 12)	47%	49%
350-1000 kVA (see page 10 of 12)	54%	55%
Total (see page 11 of 12)	51%	52%
Rate #2.4 General Service 1000 kVA and Over (see page 12 of 12)	61%	62%
Rate #4.1 Street and Area Lighting²	48%	48%

Notes:

1. Based on coincidence with Newfoundland and Labrador Hydro's Peak
2. The Street and Area Lighting Load Factor is based on 4200 hours of running time ($4200/8760 = 48\%$)

Newfoundland Power Inc.

Estimate of Load Factors for Domestic Class (Rate 1.1) based on Load Research Data

Load at Class Peak

Data Collection Period	kWh Energy ¹						Load Factor		
	Domestic - Regular (110)	Domestic All Electric (112)	Total Domestic	Domestic - Regular (110)	Domestic All Electric (112)	Total Domestic	Domestic - Regular (110)	Domestic All Electric (112)	Total Domestic
Apr.91-Mar.92	155,787	569,383	725,170	689,150,680	1,874,471,286	2,563,621,966	51%	38%	40%
1992	155,787	569,383	725,170	658,746,000	1,949,151,000	2,607,897,000	48%	39%	41%
Apr.92-Mar.93	136,440	577,408	713,848	646,833,668	1,979,157,297	2,625,990,965	54%	39%	42%
1993	159,313	555,335	714,648	636,466,000	2,003,383,000	2,639,849,000	46%	41%	42%
Apr.93-Mar.94	133,685	586,914	720,599	639,367,911	2,019,860,586	2,659,228,497	55%	39%	42%
Average							51%	39%	42%

Load at time of Newfoundland Power System Peak

Data Collection Period	kWh Energy ¹						Load Factor		
	Domestic - Regular (110)	Domestic All Electric (112)	Total Domestic	Domestic - Regular (110)	Domestic All Electric (112)	Total Domestic	Domestic - Regular (110)	Domestic All Electric (112)	Total Domestic
Apr.91-Mar.92	136,582	503,425	640,007	689,150,680	1,874,471,286	2,563,621,966	58%	43%	46%
1992	136,582	503,425	640,007	658,746,000	1,949,151,000	2,607,897,000	55%	44%	47%
Apr.92-Mar.93	138,335	525,370	663,705	646,833,668	1,979,157,297	2,625,990,965	53%	43%	45%
1993	138,335	525,370	663,705	636,466,000	2,003,383,000	2,639,849,000	53%	44%	45%
Apr.93-Mar.94	128,103	558,154	686,257	639,367,911	2,019,860,586	2,659,228,497	57%	41%	44%
Average							55%	43%	45%

Load at time of Newfoundland Hydro's Peak

Data Collection Period	kWh Energy ¹						Load Factor		
	Domestic - Regular (110)	Domestic All Electric (112)	Total Domestic	Domestic - Regular (110)	Domestic All Electric (112)	Total Domestic	Domestic - Regular (110)	Domestic All Electric (112)	Total Domestic
Apr.91-Mar.92	121,505	470,694	592,199	689,150,680	1,874,471,286	2,563,621,966	65%	45%	49%
1992	121,505	470,694	592,199	658,746,000	1,949,151,000	2,607,897,000	62%	47%	50%
Apr.92-Mar.93	95,131	457,622	552,753	646,833,668	1,979,157,297	2,625,990,965	78%	49%	54%
1993	95,131	457,622	552,753	636,466,000	2,003,383,000	2,639,849,000	76%	50%	55%
Apr.93-Mar.94	104,671	474,599	579,270	639,367,911	2,019,860,586	2,659,228,497	70%	49%	52%
Average							70%	48%	52%

Note 1. The energy for non-calender years was adjusted to reflect 365.25 reading days.

Period	Reading Days
Apr.91-Mar.92	366.74
1992	365.21
Apr.92-Mar.93	364.00
1993	365.33
Apr.93-Mar.94	365.43

Estimate of Coincident Peak Load Factors For Rate #2.1 And Rate #2.2

	Average CP Loads	Average NCP Loads	Ratio of CP to NCP
Domestic	573,835	719,887	79.7%
General Service			
Rate 2.3	162,476	170,362	
Rate 2.4	52,765	55,163	
Total G.S.	<u>215,241</u>	<u>225,525</u>	95.4%
Subtotal	1,004,316	1,170,937	85.8%
		Ratio Estimate	85%

	Class Load Factors	
	NCP¹	CP²
Rate 2.1	35%	42%
Rate 2.2	38%	45%

Notes:

1. See pages 4 of 12 and 6 of 12.
2. CP load factors derived based on the ratio of class peak demands to class coincident peak demands.

**Estimate of Class Peak Load Factor for
General Service 0-10 kW (Rate 2.1) based on Bary Curve**

**Results of 1998 Peak Month Analysis Applied to
1994 Class Sales data to match Load Research Study**

Feb. 94 MWh Sales (kWh) 8,844,000

Peak Month NCP Load Factor (see page 5 of 12) 43%

Total Class Peak kW 28174.6

1994 Billed Energy kWh 87,470,000

Reading Days 365.53

Adjusted kWh to reflect 365.25 days 87,402,997

NCP Annual Load Factor 35%

Estimate of Class Peak Load Factor for General Service 0-10 kW (Rate 2.1) based on Bary Curve

Analysis of February 1998 Billing Data

Ending Interval	Total Population Count	Unmetered Services		Metered Population		Average Load Factor per Interval ⁴	Total Population			Bary Coin. Factor (%)	Interval Class Peak
		Count	Load Factor ¹	Population Count ²	Sample Data Load Factor ³		kWh per interval	Adjusted to 30.43 Days	Est. kW billing demand		
300	3,079	270	42.5%	2,809	7.0%	10.1%	381,784	396,238	5,353.0	45	2,409
750	2,370	407	40.1%	1,963	15.8%	19.9%	1,168,603	1,212,844	8,336.3	71	5,919
1,000	848	37	100.0%	811	23.0%	26.4%	705,037	731,728	3,804.0	76	2,891
1,250	658	32	100.0%	626	26.7%	30.2%	760,585	789,379	3,575.9	81	2,896
1,500	574	21	100.0%	553	30.0%	32.6%	779,032	808,525	3,398.5	81	2,753
1,800	533	2	100.0%	531	33.9%	34.2%	874,416	907,520	3,640.3	81	2,949
2,100	419	1	100.0%	418	38.1%	38.3%	876,167	909,337	3,253.2	81	2,635
2,400	384			384	42.0%	42.0%	740,901	768,950	2,510.4	83	2,084
2,700	269			269	46.4%	46.4%	649,845	674,447	1,992.5	83	1,654
3,000	218			218	50.0%	50.0%	551,549	572,430	1,568.3	83	1,302
3,300	169			169	58.5%	58.5%	343,143	356,134	833.9	83	692
3,600	109			109	59.3%	59.3%	327,881	340,294	785.6	83	652
3,900	75			75	62.3%	62.3%	261,881	271,795	597.8	83	496
4,200	58			58	67.8%	67.9%	129,125	134,013	270.6	83	225
4,500	43			43	71.1%	71.1%	138,267	143,502	276.6	83	230
4,800	20			20	84.9%	84.9%	125,250	129,992	209.8	88	185
5,000	16			16	84.9%	84.9%	44,152	45,824	74.0	89	66
5,500	24			24	84.9%	84.9%	93,301	96,833	156.3	90	141
8,000	33			33	86.0%	86.0%	141,152	146,496	233.3	91	212
Total	9,899	770		9129			9,092,071	9,436,281	40,870.0		30,389
1. Counts excludes accounts with zero usage for the month. 1. Based on an analysis of the type of customers billed with unmetered services. 2. Load factors per interval of energy consumption based on demand metered Rate 2.1 customers for the same period. 3. Weighted average load factor metered and un-metered services per energy interval.										Class Pk Month 43% NCP Load Factor	

**Estimate for Class Peak Load Factor for
General Service 10-100 kW (Rate 2.2) based on Barry Curve.**

**Results of 2002 Peak Month Analysis Applied to
1994 Class Sales data to match Load Research Study**

February 1994 Sales	64,099,000
Peak month NCP Load Factor (see page 8 of 12)	54%
Total Class Peak	162,605
Annual 1994 Sales	547,223,000
Reading Days	365.53
Adjusted kWh to reflect 365.25 days	546,803,821
NCP Annual Load Factor	38%

**Estimate for Class Peak Load Factor for General Service 10-100 kW (Rate 2.2)
based on Barry Curve.**

Analysis of February 2002 Billing Data

<u>Hours Use</u> <u>of</u> <u>Demand</u>	<u>Number of</u> <u>Bills</u>	<u>Billing</u> <u>Demand</u>	<u>kWh</u>	<u>Load Factor</u>	<u>Block</u> <u>Demand</u> <u>kW</u>	<u>Block Energy</u> <u>kWh</u>	<u>Barry</u> <u>Coincidence</u> <u>Factor</u>	<u>NCP</u> <u>Estimate</u>
0	22	259						
10	3	34	240	1.0%	34	240	5%	2
20	17	219	3,514	2.2%	219	3,514	15%	33
30	18	320	7,970	3.4%	320	7,970	20%	64
40	30	518	18,700	4.9%	518	18,700	30%	155
50	28	419	18,806	6.1%	419	18,806	32%	134
60	36	831	46,800	7.7%	831	46,800	40%	332
70	53	943	61,731	9.0%	943	61,731	43%	406
80	43	718	54,115	10.3%	718	54,115	46%	330
90	59	1,116	95,490	11.7%	1,116	95,490	50%	558
100	79	1,381	133,002	13.2%	1,381	133,002	55%	759
110	53	1,160	123,620	14.6%	1,160	123,620	60%	696
120	78	1,559	179,835	15.8%	1,559	179,835	62%	967
130	77	1,698	214,450	17.3%	1,698	214,450	65%	1,104
140	97	2,270	305,770	18.5%	2,270	305,770	68%	1,543
150	105	2,389	347,214	19.9%	2,389	347,214	71%	1,696
160	87	1,753	272,326	21.3%	1,753	272,326	73%	1,280
170	118	2,757	453,874	22.6%	2,757	453,874	74%	2,040
180	134	3,036	531,125	24.0%	3,036	531,125	75%	2,277
190	146	3,123	578,469	25.4%	3,123	578,469	76%	2,373
200	172	3,806	745,180	26.8%	3,806	745,180	78%	2,968
210	153	4,022	827,112	28.2%	4,022	827,112	80%	3,217
220	178	3,893	837,108	29.5%	3,893	837,108	81%	3,153
230	208	5,027	1,131,157	30.8%	5,027	1,131,157	81%	4,071
240	211	5,130	1,208,115	32.3%	5,130	1,208,115	81%	4,155
250	235	5,539	1,361,251	33.7%	5,539	1,361,251	81%	4,486
260	232	5,740	1,468,753	35.0%	5,740	1,468,753	81%	4,650
270	232	5,658	1,500,769	36.3%	5,658	1,500,769	81%	4,583
280	239	6,309	1,736,715	37.7%	6,309	1,736,715	81%	5,110
290	250	5,967	1,701,515	39.1%	5,967	1,701,515	83%	4,953
300	271	6,833	2,021,721	40.5%	6,833	2,021,721	83%	5,671
310	219	5,888	1,799,819	41.9%	5,888	1,799,819	83%	4,887
320	241	6,624	2,087,667	43.2%	6,624	2,087,667	83%	5,498
330	249	6,875	2,238,670	44.6%	6,875	2,238,670	83%	5,707
340	259	7,627	2,558,320	46.0%	7,627	2,558,320	83%	6,330
350	275	8,130	2,809,184	47.3%	8,130	2,809,184	83%	6,747
360	226	6,255	2,224,273	48.7%	6,255	2,224,273	84%	5,254
370	210	6,146	2,244,793	50.0%	6,146	2,244,793	84%	5,162
380	209	6,265	2,347,675	51.3%	6,265	2,347,675	84%	5,263
390	191	5,441	2,096,878	52.8%	5,441	2,096,878	84%	4,571
400	201	5,838	2,309,050	54.2%	5,838	2,309,050	84%	4,904
410	153	4,809	1,951,990	55.6%	4,809	1,951,990	84%	4,040
420	145	4,211	1,745,900	56.8%	4,211	1,745,900	84%	3,537
430	156	4,413	1,875,643	58.2%	4,413	1,875,643	84%	3,707

Hours Use	Number of	Billing	kWh	Load Factor	Block	Block Energy	Barry	NCP
of Demand	Bills	Demand			Demand kW	kWh	Coincidence Factor	Estimate
440	138	4,124	1,793,286	59.6%	4,124	1,793,286	84%	3,464
450	130	3,597	1,603,680	61.1%	3,597	1,603,680	84%	3,021
460	95	3,197	1,456,631	62.4%	3,197	1,456,631	84%	2,686
470	106	3,294	1,532,333	63.7%	3,294	1,532,333	84%	2,767
480	76	2,334	1,108,450	65.1%	2,334	1,108,450	84%	1,961
490	83	2,744	1,330,450	66.4%	2,744	1,330,450	84%	2,305
500	69	1,993	987,470	67.9%	1,993	987,470	84%	1,674
510	43	1,386	701,221	69.3%	1,386	701,221	84%	1,164
520	34	904	466,010	70.6%	904	466,010	84%	759
530	38	1,277	669,600	71.8%	1,277	669,600	84%	1,072
540	36	947	507,534	73.4%	947	507,534	86%	814
550	35	1,173	639,310	74.7%	1,173	639,310	87%	1,021
560	20	594	329,560	76.0%	594	329,560	88%	523
570	23	730	412,664	77.5%	730	412,664	88%	642
580	20	596	343,270	78.9%	596	343,270	88%	524
590	21	747	436,800	80.1%	747	436,800	88%	657
600	18	380	226,085	81.5%	380	226,085	88%	334
610	8	135	81,455	82.9%	135	81,455	88%	118
620	16	512	315,208	84.3%	512	315,208	89%	456
630	9	265	165,553	85.5%	265	165,553	90%	239
640	16	401	255,170	87.2%	401	255,170	91%	365
650	10	189	122,030	88.7%	189	122,030	91%	172
660	6	93	60,520	89.6%	93	60,520	92%	85
670	11	338	224,558	91.0%	870	595,228	95%	826
680	3	29	19,660		195,166	62,415,827		157,024
690	5	253	173,720					
700	6	98	68,140		Peak Month NCP Load Factor			
710	2	39	27,330					54%
720	3	39	27,880					
730	4	74	53,940					

Estimate of Load Factors for General Service 110-1000 KVA Class (Rate 2.3) based on Load Research Data

	Load at Class Peak			kWh Energy ¹			Load Factor		
	110-350 Secondary	110-350 Primary	Total 110-350	110-350 Secondary	110-350 Primary	Total	110-350 Secondary	110-350 Primary	Total 110-350
Apr.91-Mar.92	84854	4619	89473	339226162	24051883	363278045	46%	59%	46%
1992	84854	4619	89473	339597000	23565000	363162000	46%	58%	46%
Apr.92-Mar.93	79843	3986	83829	340015640	22813073	362828713	49%	65%	49%
1993	79843	3986	83829	336451000	21743000	358194000	48%	62%	49%
Apr.93-Mar.94	85225	4445	89670	337674590	21984166	359658756	45%	56%	46%
	82924					Average	47%	60%	47%

Load at time of Newfoundland Power System Peak

	kWh Energy ¹						Load Factor		
	110-350 Secondary	110-350 Primary	Total 110-350	110-350 Secondary	110-350 Primary	Total	110-350 Secondary	110-350 Primary	Total 110-350
Apr.91-Mar.92	81533	4385	85918	339226162	24051883	363278045	48%	63%	48%
1992	81533	4385	85918	339597000	23565000	363162000	48%	61%	48%
Apr.92-Mar.93	59600	3586	63186	340015640	22813073	362828713	65%	73%	66%
1993	59600	3586	63186	336451000	21743000	358194000	64%	69%	65%
Apr.93-Mar.94	78123	4464	82587	337674590	21984166	359658756	49%	56%	50%
						Average	55%	64%	55%

Load at time of Newfoundland Hydro's Peak

			kWh Energy ¹				Load Factor		
	110-350 Secondary	110-350 Primary	Total 110-350	110-350 Secondary	110-350 Primary	Total	110-350 Secondary	110-350 Primary	Total 110-350
Apr.91-Mar.92	80328	4359	84687	339226162	24051883	363278045	48%	63%	49%
1992	80328	4359	84687	339597000	23565000	363162000	48%	62%	49%
Apr.92-Mar.93	79446	3943	83389	340015640	22813073	362828713	49%	66%	50%
1993	79446	3943	83389	336451000	21743000	358194000	48%	63%	49%
Apr.93-Mar.94	82157	4428	86585	337674590	21984166	359658756	47%	57%	47%
	80341					Average	48%	62%	49%

Estimate of Load Factors for General Service 110-1000 KVA Class (Rate 2.3) based on Load Research Data

	Load at Class Peak			kWh Energy ¹			Load Factor		
	350-1000 Secondary	350-1000 Primary	Total 350-1000	350-1000 Secondary	350-1000 Primary	Total 350-1000	350-1000 Secondary	350-1000 Primary	Total 350-1000
Apr.91-Mar.92	55314	25967	81281	256217786	134220461	390438247	53%	59%	55%
1992	55314	25967	81281	252405000	131521000	383926000	52%	58%	54%
Apr.92-Mar.93	55683	27380	83063	256421555	133642366	390063921	53%	56%	54%
1993	55683	27380	83063	262828000	139560000	402388000	54%	58%	55%
Apr.93-Mar.94	58096	28750	86846	267225308	137415280	404640588	53%	55%	53%
Average							53%	57%	54%

Load at time of Newfoundland Power System Peak

	kWh Energy ¹						Load Factor		
	350-1000 Secondary	350-1000 Primary	Total 350-1000	350-1000 Secondary	350-1000 Primary	Total 350-1000	350-1000 Secondary	350-1000 Primary	Total 350-1000
Apr.91-Mar.92	54405	25726	80131	257263000	134768000	392031000	54%	60%	56%
1992	54405	25726	80131	252405000	131521000	383926000	53%	58%	55%
Apr.92-Mar.93	44012	20638	64650	255544000	133185000	388729000	66%	74%	69%
1993	44013	20638	64651	262828000	139560000	402388000	68%	77%	71%
Apr.93-Mar.94	54902	27635	82537	267357000	137483000	404840000	56%	57%	56%
Average							59%	65%	61%

Load at time of Newfoundland Hydro's Peak

	kWh Energy ¹						Load Factor		
	350-1000 Secondary	350-1000 Primary	Total 350-1000	350-1000 Secondary	350-1000 Primary	Total 350-1000	350-1000 Secondary	350-1000 Primary	Total 350-1000
Apr.91-Mar.92	55424	26028	81452	257263000	134768000	392031000	53%	59%	55%
1992	55424	26028	81452	252405000	131521000	383926000	52%	58%	54%
Apr.92-Mar.93	54175	27279	81454	255544000	133185000	388729000	54%	56%	54%
1993	54175	27279	81454	262828000	139560000	402388000	55%	58%	56%
Apr.93-Mar.94	56812	28049	84861	267357000	137483000	404840000	54%	56%	54%
Average							54%	57%	55%

**Estimate of Load Factors for General Service 110-1000 KVA Class (Rate 2.3)
based on Load Research Data**

Load at Class Peak - Total Rate 2.3

Time of Peak			Energy	Load Factor
1992/03/02 9:30	Apr.91-Mar.92	170754	753716292	50.4%
1992/03/02 9:30	1992	170754	747088000	50.0%
1993/02/08 9:30	Apr.92-Mar.93	166892	752892634	51.5%
1993/02/08 9:30	1993	166892	760582000	52.0%
1994/02/09 9:30	Apr.93-Mar.94	176516	764299344	49.4%
	Average			51.0%

Load at time of Newfoundland Power System Peak - Total Rate 2.3

Time of Peak			Energy	Load Factor
1992/03/02 12:00	Apr.91-Mar.92	166049	753716292	51.8%
1992/03/02 12:00	1992	166049	747088000	51.4%
1993/01/20 17:30	Apr.92-Mar.93	127836	752892634	67.2%
1993/01/20 17:30	1993	127837	760582000	67.9%
1994/02/09 8:15	Apr.93-Mar.94	165124	764299344	52.8%
	Average			58.0%

Load at time of Newfoundland Hydro's Peak - Total Rate 2.3

Time of Peak			Energy	Load Factor
1992/03/02 11:45	Apr.91-Mar.92	166139	753716292	51.8%
1992/03/02 11:45	1992	166139	747088000	51.3%
1993/02/08 9:15	Apr.92-Mar.93	164843	752892634	52.1%
1993/02/08 9:15	1993	164843	760582000	52.7%
1994/02/09 11:00	Apr.93-Mar.94	171446	764299344	50.9%
	Average			52.0%

Note 1. The energy for non-calender years was adjusted to reflect 365.25 reading days.

Period	Reading Days
Apr.91-Mar.92	366.74
1992	365.21
Apr.92-Mar.93	364.00
1993	365.33
Apr.93-Mar.94	365.43

Estimate of Load Factors for General Service 1000 KVA and Over Class (Rate 2.4) based on Load Research Data

Time Period	Load at Class Peak				Energy ¹				Load Factor		
	Secondary	Primary	Transmission	Total Rate 2.4	Secondary	Primary	Transmission	Total Rate 2.4	Secondary	Primary	Total Rate 2.4
1992	3619	52904	336	56859	14675449	280155414	15046752	309877615	46%	60%	62%
Apr.92-Mar.93	3240	48908	0	52148	13150086	253829433	0	266979519	46%	59%	58%
1993	10281	40353	1848	52482	46891843	225427887	15793680	288113410	52%	64%	63%
Apr.93-Mar.94	11493	47565	106	59164	53708688	240068574	15923733	309700995	53%	58%	60%
				55163				Average	50%	60%	61%

Load at Newfoundland Power System Peak

Time Period	Energy ¹				Load Factor		
	Secondary	Primary	Transmission	Total Rate 2.4	Secondary	Primary	Total Rate 2.4
1992	3504	49713	475	53692	48%	64%	66%
Apr.92-Mar.93	2213	41780	0	43993	68%	69%	69%
1993	2213	41780	0	43993	68%	69%	69%
Apr.93-Mar.94	10737	43784	115	54636	57%	63%	65%
					Average	60%	67%

Load at Newfoundland Hydro System Peak

Time Period	Energy ¹				Load Factor		
	Secondary	Primary	Transmission	Total Rate 2.4	Secondary	Primary	Total Rate 2.4
1992	3503	50316	485	54304	48%	64%	66%
Apr.92-Mar.93	3240	45831	0	49071	46%	63%	62%
1993	3240	45831	0	49071	46%	63%	62%
Apr.93-Mar.94	11385	47114	115	58614	54%	58%	60%
				52765	Average	49%	62%

Note 1. The energy for non-calender years was adjusted to reflect 365.25 reading days.

Time Period	Reading Days
1992	365.21
Apr.92-Mar.93	364.00
1993	365.33
Apr.93-Mar.94	365.43