

**Construct a Fourth Distribution Feeder at Bottom Waters Terminal Station**

1 Q. At page 5, line 17 of Hydro's Report to the Board re Additions for Load Growth –  
 2 New Distribution Feeder, the Applicant refers to a feeder as serving approximately  
 3 1800 customers.

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5 (a) Provide a table showing the number of customers the feeder has been  
 6 serving in each of the last five (5) years.

7 (b) What is the population trending the area served by the feeder based on  
 8 demographic studies?

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11 A. (a) The following table provides the number of customers the feeder has been  
 12 serving in each year since 2011.

**Customers at Year End**

	<u>Domestic and General Service</u>	<u>Area Lighting</u>	<u>Total</u>
2011	1767	44	1811
2012	1764	43	1807
2013	1764	42	1806
2014	1757	42	1799
2015	1759	42	1801
2016	1759	44	1803

13 (b) Please see CA-NLH-002, Attachment 1 – Newfoundland Population, for  
 14 historical and forecast population trend for Newfoundland and Labrador's  
 15 Economic Zone 11, which includes the Baie Verte Peninsula and the Bottom Waters  
 16 distribution system.

1 Hydro acknowledges that within the past decade the adult population exhibits a  
2 rate of decline; however, population trend does not influence the recommendation  
3 and application for upgrading the Bottom Waters system. The Bottom Waters  
4 system is currently at capacity and requires upgrading to supply the additional loads  
5 requested by the customers.

## Page 1 of 4, Construct a Fourth Distribution Feeder at Bottom Waters Terminal Station

## POPULATION NEWFOUNDLAND AND LABRADOR

## Zone 11

	<u>Total</u>	<u>0 - 4</u>	<u>5 - 9</u>	<u>10 - 14</u>	<u>15 - 19</u>	<u>20 - 24</u>	<u>25 - 29</u>	<u>30 - 34</u>	<u>35 - 39</u>	<u>40 - 44</u>	<u>45 - 49</u>	<u>50 - 54</u>	<u>55 - 59</u>	<u>60 - 64</u>	<u>65 - 69</u>	<u>70 - 74</u>	<u>75 - 79</u>	<u>80 - 84</u>	<u>85 - 89</u>	<u>90 +</u>
1986	20,943	1,646	1,776	2,335	2,559	1,919	1,807	1,618	1,484	1,116	875	831	738	689	539	414	313	155	83	46
1987	20,708	1,580	1,716	2,210	2,467	1,897	1,770	1,627	1,488	1,201	888	823	744	690	568	429	316	160	86	48
1988	20,507	1,519	1,673	2,080	2,381	1,871	1,736	1,633	1,499	1,266	920	818	763	694	588	440	324	164	88	50
1989	20,380	1,463	1,636	1,954	2,311	1,852	1,712	1,639	1,517	1,333	951	830	776	704	600	453	335	174	90	50
1990	20,220	1,431	1,593	1,823	2,241	1,804	1,686	1,643	1,527	1,406	982	840	786	721	595	476	338	183	95	50
1991	20,112	1,392	1,546	1,695	2,166	1,817	1,646	1,656	1,527	1,446	1,057	851	797	722	626	492	334	195	93	54
1992	19,929	1,343	1,490	1,648	2,031	1,790	1,635	1,632	1,541	1,455	1,142	857	794	724	630	517	346	208	93	53
1993	19,724	1,287	1,429	1,604	1,905	1,739	1,620	1,608	1,553	1,466	1,212	876	795	737	635	532	358	222	93	53
1994	19,337	1,212	1,365	1,547	1,779	1,644	1,573	1,559	1,543	1,464	1,276	893	804	744	646	536	372	236	95	49
1995	18,898	1,108	1,322	1,480	1,658	1,537	1,509	1,510	1,531	1,455	1,342	907	811	747	664	529	397	245	100	46
1996	18,440	1,012	1,270	1,411	1,526	1,433	1,448	1,444	1,524	1,436	1,369	969	817	749	667	550	416	247	107	45
1997	17,919	952	1,199	1,348	1,450	1,293	1,345	1,394	1,477	1,427	1,366	1,049	821	741	674	551	433	247	107	45
1998	17,327	895	1,125	1,282	1,378	1,141	1,229	1,327	1,422	1,408	1,356	1,115	838	735	690	549	438	249	107	43
1999	16,883	849	1,059	1,226	1,331	1,027	1,123	1,271	1,378	1,392	1,350	1,180	857	740	703	557	438	251	108	43
2000	16,467	815	979	1,189	1,279	920	1,022	1,220	1,339	1,377	1,338	1,247	873	747	712	571	426	258	112	43
2001	16,031	767	914	1,150	1,224	820	920	1,166	1,284	1,368	1,313	1,274	929	755	718	572	441	257	113	46
2002	15,688	710	860	1,096	1,166	790	839	1,100	1,261	1,332	1,306	1,270	1,007	774	717	578	442	277	109	54
2003	15,390	661	810	1,036	1,113	761	776	1,037	1,238	1,299	1,299	1,268	1,076	808	719	594	439	288	106	62
2004	15,089	614	765	971	1,063	737	709	973	1,209	1,268	1,283	1,267	1,139	842	730	608	444	293	104	70
2005	14,735	559	727	890	1,028	693	636	908	1,172	1,235	1,263	1,261	1,199	878	742	619	447	297	105	76
2006	14,368	506	682	821	985	649	559	842	1,137	1,189	1,248	1,242	1,226	947	757	632	445	315	105	81
2007	14,181	505	645	797	954	610	542	776	1,077	1,173	1,225	1,250	1,221	1,022	775	636	455	315	123	80
2008	14,090	511	616	781	920	587	540	729	1,023	1,163	1,204	1,256	1,220	1,088	806	642	474	317	135	78
2009	14,077	524	592	765	887	566	546	686	980	1,154	1,189	1,264	1,229	1,155	841	657	492	326	146	78
2010	14,045	532	560	752	840	557	551	643	937	1,143	1,172	1,274	1,231	1,224	879	669	509	334	158	80
2011	13,965	531	536	732	801	536	551	597	885	1,139	1,139	1,286	1,222	1,257	951	684	523	339	174	82
2012	13,825	498	522	685	765	513	555	583	802	1,110	1,152	1,269	1,227	1,260	1,050	688	538	341	176	91
2013	13,725	482	510	646	735	487	554	582	725	1,068	1,171	1,248	1,236	1,262	1,135	711	544	360	179	90
2014	13,574	471	505	595	703	463	548	570	656	1,002	1,170	1,222	1,247	1,274	1,213	739	556	372	179	89
2015	13,382	443	493	568	680	425	532	566	600	930	1,149	1,215	1,236	1,274	1,272	790	556	383	180	90

## Note:

Historical data was derived by the Economic Research and Analysis Division, Department of Finance, Government of Newfoundland and Labrador

## POPULATION PROJECTIONS NEWFOUNDLAND AND LABRADOR

Low Scenario, July 2016

Zone 11

	<u>Total</u>	<u>0 - 4</u>	<u>5 - 9</u>	<u>10 - 14</u>	<u>15 - 19</u>	<u>20 - 24</u>	<u>25 - 29</u>	<u>30 - 34</u>	<u>35 - 39</u>	<u>40 - 44</u>	<u>45 - 49</u>	<u>50 - 54</u>	<u>55 - 59</u>	<u>60 - 64</u>	<u>65 - 69</u>	<u>70 - 74</u>	<u>75 - 79</u>	<u>80 - 84</u>	<u>85 - 89</u>	<u>90 +</u>
2016	13,168	427	478	528	642	377	513	564	569	843	1,120	1,212	1,229	1,285	1,295	864	559	383	181	99
2017	12,951	411	458	515	600	341	483	544	539	753	1,088	1,213	1,202	1,295	1,300	943	580	395	192	99
2018	12,735	407	439	506	554	308	432	526	533	675	1,028	1,206	1,192	1,304	1,307	1,019	601	396	203	99
2019	12,510	389	413	501	512	280	393	516	527	613	963	1,201	1,182	1,305	1,321	1,076	621	394	204	99
2020	12,318	376	402	494	481	270	343	493	520	549	885	1,184	1,191	1,299	1,328	1,131	663	405	204	100
2021	12,137	361	384	469	452	254	314	472	525	527	803	1,149	1,188	1,299	1,339	1,156	723	406	205	111
2022	11,982	339	384	459	450	232	286	458	512	516	723	1,116	1,186	1,284	1,347	1,161	786	417	216	110
2023	11,857	325	370	452	439	214	281	426	503	506	645	1,080	1,203	1,274	1,358	1,166	853	427	215	120
2024	11,759	310	369	425	446	207	256	400	492	511	594	1,028	1,210	1,266	1,370	1,183	900	447	226	119
2025	11,596	296	352	418	444	189	250	356	483	517	553	958	1,195	1,264	1,363	1,191	947	476	226	118
2026	11,492	285	348	410	439	171	239	331	473	526	524	882	1,174	1,281	1,370	1,199	962	528	225	125
2027	11,436	275	330	407	434	177	239	322	456	531	520	812	1,164	1,290	1,353	1,210	978	577	237	124
2028	11,375	267	329	402	424	183	241	316	430	528	523	751	1,115	1,310	1,348	1,230	982	626	246	124
2029	11,321	259	320	406	419	187	229	309	409	523	535	706	1,076	1,316	1,342	1,232	992	672	258	131
2030	11,243	260	310	389	399	190	230	313	379	528	546	672	1,006	1,313	1,362	1,237	1,001	700	277	131
2031	11,148	252	300	388	400	191	227	309	359	512	559	647	941	1,299	1,362	1,232	1,008	713	309	140
2032	11,058	245	290	387	405	190	234	308	341	504	562	643	853	1,277	1,379	1,223	1,017	728	325	147
2033	10,979	247	281	366	398	187	238	308	341	483	566	655	784	1,234	1,404	1,217	1,035	734	355	146
2034	10,897	250	282	365	399	183	242	308	332	452	571	675	737	1,185	1,400	1,217	1,036	740	371	152
2035	10,847	244	282	364	401	181	256	299	336	431	577	694	699	1,117	1,398	1,237	1,037	748	378	168
2036	10,789	237	283	354	399	181	264	308	342	418	581	716	680	1,049	1,380	1,234	1,040	754	394	175

## Note:

The population projections use information/assumptions about fertility, mortality and migration to produce three different population projection scenarios for Newfoundland and Labrador. The medium scenario is considered to be the "most likely" .

Source: Economic Research and Analysis Division, Department of Finance, NL Government

## POPULATION PROJECTIONS NEWFOUNDLAND AND LABRADOR

Medium Scenario, July 2016

Zone 11

	<u>Total</u>	<u>0 - 4</u>	<u>5 - 9</u>	<u>10 - 14</u>	<u>15 - 19</u>	<u>20 - 24</u>	<u>25 - 29</u>	<u>30 - 34</u>	<u>35 - 39</u>	<u>40 - 44</u>	<u>45 - 49</u>	<u>50 - 54</u>	<u>55 - 59</u>	<u>60 - 64</u>	<u>65 - 69</u>	<u>70 - 74</u>	<u>75 - 79</u>	<u>80 - 84</u>	<u>85 - 89</u>	<u>90 +</u>
2016	13233	429	480	530	649	385	522	569	573	849	1125	1218	1231	1287	1299	865	559	383	181	99
2017	13,024	413	460	517	609	353	494	550	543	759	1,093	1,219	1,205	1,296	1,304	943	580	395	192	99
2018	12,813	409	440	506	563	323	445	534	536	681	1,032	1,214	1,194	1,304	1,311	1,020	601	397	204	99
2019	12,596	392	412	500	523	299	409	525	531	617	966	1,210	1,184	1,304	1,326	1,076	622	395	205	100
2020	12,441	383	401	493	493	294	366	507	526	556	890	1,196	1,195	1,297	1,334	1,133	664	407	205	101
2021	12,275	371	381	466	465	282	343	489	532	533	808	1,162	1,193	1,297	1,344	1,158	724	408	207	112
2022	12,128	350	380	454	463	263	320	477	519	521	726	1,128	1,192	1,280	1,352	1,165	788	420	218	112
2023	12,005	339	365	446	448	242	319	446	510	510	646	1,092	1,211	1,271	1,362	1,171	856	430	218	123
2024	11,927	328	366	419	453	234	298	424	502	516	595	1,038	1,221	1,263	1,373	1,190	904	451	230	122
2025	11,785	318	350	410	449	214	297	385	495	523	555	967	1,208	1,263	1,366	1,199	952	482	230	122
2026	11,728	311	350	401	445	196	293	367	489	534	528	893	1,190	1,283	1,373	1,209	970	535	231	130
2027	11,689	305	336	398	437	200	293	364	475	540	524	821	1,180	1,294	1,356	1,219	988	585	243	131
2028	11,651	301	339	394	424	202	292	364	452	538	528	759	1,132	1,319	1,351	1,240	994	637	254	131
2029	11,613	296	333	399	417	202	276	362	435	535	540	713	1,091	1,328	1,346	1,243	1,006	685	266	140
2030	11,539	299	326	385	394	201	272	368	408	540	551	678	1,019	1,327	1,367	1,247	1,016	714	287	140
2031	11,452	292	319	386	393	198	262	365	391	525	564	651	951	1,315	1,370	1,242	1,025	731	321	151
2032	11,366	285	312	387	397	194	263	361	376	518	566	646	861	1,293	1,390	1,234	1,036	748	340	159
2033	11,302	287	305	370	391	190	261	358	381	499	570	658	790	1,250	1,419	1,229	1,056	757	372	159
2034	11,222	289	308	371	394	185	259	352	375	470	575	677	740	1,197	1,419	1,230	1,057	766	392	166
2035	11,178	281	310	373	398	182	268	336	381	452	580	697	702	1,127	1,419	1,251	1,059	776	401	185
2036	11,142	273	313	366	398	182	274	341	389	444	586	719	682	1,058	1,403	1,252	1,063	785	420	194

## Note:

The population projections use information/assumptions about fertility, mortality and migration to produce three different population projection scenarios for Newfoundland and Labrador. The medium scenario is considered to be the "most likely".

Source: Economic Research and Analysis Division, Department of Finance, NL Government

## POPULATION PROJECTIONS NEWFOUNDLAND AND LABRADOR

## High Scenario, July 2016

## Zone 11

	<u>Total</u>	<u>0 - 4</u>	<u>5 - 9</u>	<u>10 - 14</u>	<u>15 - 19</u>	<u>20 - 24</u>	<u>25 - 29</u>	<u>30 - 34</u>	<u>35 - 39</u>	<u>40 - 44</u>	<u>45 - 49</u>	<u>50 - 54</u>	<u>55 - 59</u>	<u>60 - 64</u>	<u>65 - 69</u>	<u>70 - 74</u>	<u>75 - 79</u>	<u>80 - 84</u>	<u>85 - 89</u>	<u>90 +</u>
2016	13,292	433	484	533	652	389	529	575	577	856	1,131	1,222	1,234	1,289	1,301	865	559	383	181	99
2017	13,098	418	464	521	612	357	502	557	549	767	1,101	1,224	1,209	1,298	1,307	945	580	396	192	99
2018	12,897	415	445	511	566	327	453	542	542	689	1,042	1,220	1,198	1,308	1,314	1,022	603	397	204	99
2019	12,698	400	418	506	527	303	418	535	539	625	978	1,218	1,190	1,310	1,330	1,078	623	395	205	100
2020	12,589	395	409	501	499	300	378	521	537	567	906	1,209	1,204	1,305	1,340	1,137	666	409	205	101
2021	12,450	386	390	475	472	288	357	507	545	545	826	1,178	1,202	1,306	1,352	1,164	726	410	209	112
2022	12,312	368	390	463	470	269	332	495	533	533	744	1,146	1,203	1,289	1,361	1,171	791	422	220	112
2023	12,182	358	374	455	456	248	331	463	524	521	660	1,110	1,222	1,280	1,370	1,176	859	432	220	123
2024	12,132	351	378	428	461	240	310	443	518	529	610	1,059	1,236	1,273	1,383	1,197	908	454	231	123
2025	12,018	344	365	421	458	219	309	405	514	538	571	990	1,225	1,275	1,377	1,208	958	486	232	123
2026	12,005	342	369	414	455	202	307	389	511	553	546	918	1,211	1,299	1,386	1,220	978	539	234	132
2027	11,990	339	357	413	448	206	307	386	499	561	542	846	1,204	1,312	1,371	1,231	997	591	247	133
2028	11,969	337	363	409	436	208	305	386	476	559	546	784	1,158	1,338	1,368	1,254	1,004	645	259	134
2029	11,950	333	360	416	429	208	288	383	459	558	559	738	1,118	1,350	1,365	1,259	1,018	695	271	143
2030	11,889	338	354	402	407	207	282	387	431	564	570	701	1,048	1,352	1,387	1,264	1,031	726	294	144
2031	11,808	330	348	405	406	202	269	382	412	548	584	673	979	1,343	1,392	1,262	1,042	745	330	156
2032	11,720	324	342	408	410	198	269	374	395	539	585	667	886	1,321	1,413	1,255	1,055	763	351	165
2033	11,664	327	335	392	404	194	265	369	399	520	589	679	814	1,280	1,444	1,251	1,077	774	385	166
2034	11,593	330	339	395	409	189	261	359	390	490	593	697	763	1,227	1,447	1,254	1,081	787	407	175
2035	11,564	321	342	399	413	186	270	341	394	471	598	717	724	1,158	1,450	1,278	1,086	800	419	197
2036	11,538	313	346	393	415	186	276	344	400	461	604	739	702	1,089	1,437	1,281	1,092	812	441	207

## Note:

The population projections use information/assumptions about fertility, mortality and migration to produce three different population projection scenarios for Newfoundland and Labrador. The medium scenario is considered to be the "most likely".