

MIPUG MFR 4

A complete PCOSS including all backup materials for the 2013/14 year consistent with the embedded cost COS principles in Order 117/06 as modified in Order 116/08 (“Existing Methodology”).

Please see the Attachment to this MFR.

MANITOBA HYDRO
PROSPECTIVE COST OF SERVICE STUDY-116/08
FOR FISCAL YEAR ENDING
MARCH 31, 2014

The attached Cost of Service schedules reflect the 2013/14 Prospective Cost of Service Study (“PCOSS14”) with modifications based on Order 116/08 which include:

- An Export Class without cost distinction between Dependable and Opportunity Export Sales
- Assign 100% of power purchases including wind to the export class
- Assign 100% of “trading desk” and MAPP/MISO costs to the export class
- Assign all fuel costs and 50% of fixed thermal generation costs to the export class
- Assign DSM costs directly to the export class and add DSM energy savings to domestic load for generation allocation purposes
- Use most recent forecast export prices to establish export revenue

The incorporation of the modifications results in negative net export revenue of \$147 million to be allocated to domestic customers. A summary of the costs assigned or allocated to the Export class is shown in the table below.

	PCOSS14 116/08 (\$ Million)
Gross Export Revenue	340
Less:	
Uniform Rates	23
Affordable Energy Fund	13
DSM	40
Trading Desk	13
MISO/NEB	5
Purchased Power	171
Thermal Costs	33
Allocated Generation	160
Allocated Transmission	30
Net Export Revenue	(147)

The primary tables presented below are based on PCOSS14-116/08 methodology.

1. Revenue Cost Coverage Table (Schedule B1-116/08) - This ratio compares revenues of each class to its allocated costs. The RCC ratio provides the relative performance of each rate class over a base of 100%.

2. Customer, Demand and Energy Costs (Schedule B2-116/08) - In this table the components are converted to unit costs using billing determinants, i.e., number of customers, billable demand and kWh sales. The information in Schedule B2 is intended to provide a comparison of allocated unit costs with the corresponding price in the appropriate rate schedule.
3. Functional Breakdown (Schedule B3-116/08) - This table identifies the cost of providing each level of service to each customer class.
4. Classified Costs by Allocation (Schedule E1-116/08) - This table summarizes the classified costs by allocation table.

SCHEDULE B1-116/08
Revenue Cost Coverage Analysis

Manitoba Hydro
 Prospective Cost Of Service Study
 March 31, 2014
 Revenue Cost Coverage Analysis

S U M M A R Y

Customer Class	Total Cost (\$000)	Class Revenue (\$000)	Net Export Revenue (\$000)	Total Revenue (\$000)	RCC % Current Rates
Residential	548,828	588,630	(64,891)	523,738	95.4%
General Service - Small Non Demand	114,293	135,035	(13,514)	121,521	106.3%
General Service - Small Demand	115,714	136,080	(13,682)	122,398	105.8%
General Service - Medium	167,220	186,797	(19,772)	167,025	99.9%
General Service - Large 0 - 30kV	81,347	84,956	(9,618)	75,338	92.6%
General Service - Large 30-100kV*	46,756	57,808	(5,528)	52,279	111.8%
General Service - Large >100kV*	153,334	189,258	(18,130)	171,128	111.6%
*Includes Curtailment Customers					
SEP	967	826	-	826	85.5%
Area & Roadway Lighting	22,137	21,630	(822)	20,808	94.0%
Total General Consumers	1,250,596	1,401,019	(145,956)	1,255,063	100.4%
Diesel	9,908	6,612	(1,171)	5,440	54.9%
Export	487,581	340,454	147,128	487,581	100.0%
Total System	1,748,084	1,748,084	-	1,748,084	100.0%

SCHEDULE B2-116/08
Customer, Demand, Energy Cost Analysis

Manitoba Hydro
 Prospective Cost Of Service Study - March 31, 2014
 Customer, Demand, Energy Cost Analysis

SUMMARY

Class	CUSTOMER				DEMAND			ENERGY		
	Cost (\$000)	Number of Customers	Unit Cost \$/Month	Cost (\$000)	% Recovery	Billable Demand MVA	Unit Cost \$/KVA	Cost (\$000)	Metered Energy mWh	Unit Cost ¢/kWh
Residential	142,932	486,987	24.46	202,598	0%	n/a	n/a	268,190	7,404,453	6.36 **
GS Small - Non Demand	28,536	53,778	44.22	39,734	0%	n/a	n/a	59,536	1,605,511	6.18 **
GS Small - Demand	9,691	12,492	64.65	45,829	38%	2,390	7.27	73,876	2,047,715	5.00
General Service - Medium	8,504	1,974	358.99	65,296	87%	7,302	7.82	113,193	3,174,662	3.82
General Service - Large <30KV	4,281	288	n/a	27,668	100%	4,042	7.90 *	59,016	1,702,481	3.47
General Service - Large 30-100KV	2,959	40	n/a	9,070	100%	2,894	4.16 *	40,255	1,327,210	3.03
General Service - Large >100KV	2,734	16	n/a	19,459	100%	8,409	2.64 *	149,271	4,903,742	3.04
SEP	325	29	933.74	124	0%	n/a	n/a	518	26,500	2.42 **
Area & Roadway Lighting	16,659	155,024	8.95	2,893	0%	n/a	n/a	3,407	100,487	6.27 **
Total General Consumers	216,620	710,628		412,670		25,038		767,261	22,292,761	
Diesel	262	755	28.86	392	0%	n/a	n/a	10,425	13,754	78.65 **
Export	n/a	n/a	n/a	33,669	0%	n/a	n/a	453,912	9,013,000	5.41 ***
Total System	216,882	711,383		446,732		25,038		1,231,599	31,319,515	

* - includes recovery of customer costs
 ** - includes recovery of demand costs
 *** - includes recovery of customer and demand costs

**SCHEDULE B3-116/08
Functional Breakdown**

Manitoba Hydro
Prospective Cost Of Service Study - March 31, 2014
Functional Breakdown

S U M M A R Y

Class	Total Cost (\$000)	Generation Cost (\$000)	%	Transmission Cost (\$000)	%	Subtransmission Cost (\$000)	%	Distribution Cust Service Cost (\$000)	%	Distribution Plant Cost (\$000)	%
Residential	613,719	266,704	43.5%	49,448	8.1%	36,028	5.9%	79,406	12.9%	182,133	29.7%
General Service - Small Non Demand	127,806	59,206	46.3%	11,079	8.7%	6,753	5.3%	20,180	15.8%	30,588	23.9%
General Service - Small Demand	129,395	73,467	56.8%	13,003	10.0%	7,743	6.0%	4,822	3.7%	30,361	23.5%
General Service - Medium	186,992	112,566	60.2%	19,766	10.6%	10,754	5.8%	7,339	3.9%	36,567	19.6%
General Service - Large <30kV	90,965	58,689	64.5%	9,977	11.0%	5,331	5.9%	4,026	4.4%	12,942	14.2%
General Service - Large 30-100kV	52,285	40,032	76.6%	5,523	10.6%	3,770	7.2%	2,880	5.5%	79	0.2%
General Service - Large >100kV	171,464	148,444	86.6%	20,285	11.8%	0	0.0%	2,702	1.6%	33	0.0%
SEP	967	518	53.6%	124	12.8%	0	0.0%	308	31.9%	17	1.7%
Area & Roadway Lighting	22,959	3,143	13.7%	389	1.7%	538	2.3%	566	2.5%	18,322	79.8%
Total General Consumers	1,396,552	762,769	54.6%	129,593	9.3%	70,919	5.1%	122,230	8.8%	311,041	22.3%
Diesel	11,079	10,425	94.1%	0	0.0%	0	0.0%	0	0.0%	654	5.9%
Export	487,581	453,026	92.9%	34,556	7.1%	0	0.0%	0	0.0%	0	0.0%
Total System	1,895,212	1,226,220	64.7%	164,149	8.7%	70,919	3.7%	122,230	6.4%	311,695	16.4%

SCHEDULE E1-116/08
Classified Costs by Allocation Table
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Prospective Cost Of Service Study
 March 31, 2014
 Classified Costs by Allocation Table

Allocation			Interest	Depreciation	Operating	Misc. Rev	Total
Table	Function						
E12	Generation - Weighted Energy		311,149	203,336	326,506	-	840,991
E13	Generation - Weighted Energy		-	-	-	-	-
E14	TBD		-	-	-	-	-
			<u>311,149</u>	<u>203,336</u>	<u>326,506</u>	<u>-</u>	<u>840,991</u>
E15	Transmission - Weighted Energy		2,597	1,281	807	-	4,684
D13	Transmission - 2CP		-	-	-	-	-
D14	Transmission - 2CP		53,461	37,900	50,246	-	141,608
			<u>56,057</u>	<u>39,181</u>	<u>51,053</u>	<u>-</u>	<u>146,292</u>
D21	Subtrans		2,024	20,004	22,838	-	44,865
D22	Subtrans	Stations	9,441	-	-	-	9,441
D23	Subtrans	Line	9,152	-	-	-	9,152
			<u>20,617</u>	<u>20,004</u>	<u>22,838</u>	<u>-</u>	<u>63,458</u>
D32	Dist. Plant	Stn	20,949	26,313	36,101	-	83,362
D36	Dist. Plant	Lines	34,376	25,885	22,897	-	83,158
D40	Dist. Plant	S/E	10,840	11,974	4,125	-	26,938
			<u>66,165</u>	<u>64,171</u>	<u>63,123</u>	<u>-</u>	<u>193,458</u>
C23	Dist. Plant	Lines	22,918	17,256	15,265	-	55,438
C27	Dist. Plant	Services	3,032	2,283	2,019	-	7,334
C40	Dist. Plant	Meter Investment	1,635	4,197	-	-	5,833
C41	Dist. Plant	Meter Mtee.	-	-	2,188	-	2,188
			<u>27,585</u>	<u>23,736</u>	<u>19,472</u>	<u>-</u>	<u>70,792</u>
C10	Dist Serv	Cust Service - General	2,238	5,570	38,661	-	46,469
C11	Dist Serv	Cust Acct - Billings	1,398	2,607	24,147	-	28,153
C12	Dist Serv	Cust Acct - Collections	919	1,413	15,873	-	18,205
C13	Dist Serv	Marketing - R & D	40	53	690	-	783
C14	Dist Serv	Inspection	179	546	3,092	-	3,817
C15	Dist Serv	Meter Read	606	879	10,467	-	11,951
			<u>5,381</u>	<u>11,068</u>	<u>92,929</u>	<u>-</u>	<u>109,378</u>
Total Allocated Costs			486,953	361,496	575,921	-	1,424,369

SCHEDULE E1-116/08
Classified Costs by Allocation Table
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DIRECTS

C02	Generation	Diesel	952	1,566	6,804		9,323
E01	Generation	Export	36,538	53,726	203,645		293,909
			<u>36,538</u>	<u>53,726</u>	<u>203,645</u>	-	<u>293,909</u>
E01	Generation	SEP - GSM	187	118	174		478
E01	Generation	SEP - GSL 0-30kV	16	10	15		40
E01	Generation	DSM Direct Assignment - Energy					
E01	Generation	Residential					-
E01	Generation	GSS ND					-
E01	Generation	GSS Demand					-
E01	Generation	GSM					-
E01	Generation	GSL 0-30kV					-
E01	Generation	GSL 30-100kV excl Curt.					-
E01	Generation	GSL >100kV excl Curt.					-
E01	Generation	Street Lights					-
E01	Generation	Curtaiment (GSL 30-100)					-
E01	Generation	Curtaiment (GSL > 100)					-
			<u>202</u>	<u>128</u>	<u>188</u>	-	<u>518</u>
D04	Transmission	Export	-	-	4,071		4,071
D04	Transmission	SEP - GSM	33	39	42		114
D04	Transmission	SEP - GSL 0-30kV	3	3	4		10
			<u>36</u>	<u>42</u>	<u>46</u>	-	<u>124</u>
C01	Distribution	Lighting	3,409	3,926	7,850		15,185
C01	Distribution	Diesel	56	85	444		585
			<u>3,465</u>	<u>4,011</u>	<u>8,294</u>	-	<u>15,770</u>
	Total Directs		41,194	59,472	223,048	-	323,715
	Total		<u>528,147</u>	<u>420,968</u>	<u>798,969</u>	-	<u>1,748,084</u>
	Generation		348,841	258,755	537,144	-	1,144,741
	Transmission		56,093	39,223	55,170	-	150,487
	Subtransmission		20,617	20,004	22,838	-	63,458
	Distribution Plant		97,215	91,918	90,888	-	280,021
	Distribution Services		5,381	11,068	92,929	-	109,378
			<u>528,147</u>	<u>420,968</u>	<u>798,969</u>	-	<u>1,748,084</u>
	Energy		350,486	258,470	531,147	-	1,140,102
	Demand		140,278	122,117	140,324	-	402,719
	Customer		37,383	40,381	127,499	-	205,263
			<u>528,147.04</u>	<u>420,968.00</u>	<u>798,969.40</u>	-	<u>1,748,084</u>

SCHEDULE D1-116/08
Seasonal Coincident Peaks (2 CP) at Generation Peak

2014 Prospective Cost of Service Study
 Prospective Peak Load Responsibility Report
 Seasonal Coincident Peaks (2 CP) at Generation Peak

	Forecast Total Energy @ Generation	Winter				SUMMER				D14 2CP Estimated Demand				
		Avg % of Yearly Energy	Estimated Seasonal Energy	Seasonal CP LF	Estimated Seasonal Demand incl DSM	Avg % of Yearly Energy	Estimated Seasonal Energy	Seasonal CP LF	Estimated Summer Demand Adder		Estimated Seasonal Demand incl DSM			
Residential	9,321,684,778	63.0%	5,872,661,410	70.1%	1,928,533	181,468	2,110,001	37.0%	3,449,023,368	73.0%	1,069,903	130,876	1,200,778	1,655,390
Seasonal	102,206,821	43.6%	44,603,685	162.5%	6,319	6,319	8,027	56.4%	57,603,136	162.5%	8,027	8,027	8,027	7,173
Water Heating	16,204,306	49.5%	8,021,131	126.0%	1,465	1,465	1,471	50.5%	8,183,175	126.0%	1,471	1,471	1,471	1,468
Total Residential	9,440,095,905		5,925,286,226		1,936,317	181,468	2,117,785		3,514,809,679		1,079,400	130,876	1,210,276	1,664,031
GS Small	2,070,493,872	57.8%	1,196,745,458	73.9%	372,793	45,862	418,654	42.2%	873,748,414	69.7%	283,873	41,362	325,236	371,945
Non-Demand	2,616,381,879	56.1%	1,467,790,234	76.9%	439,388	53,580	492,968	43.9%	1,148,591,645	78.2%	332,606	48,291	380,897	436,932
Demand	4,686,875,751	20.0%	2,664,535,692	162.5%	812,180	99,442	911,622	80.0%	2,022,340,059	106.0%	616,479	89,654	706,133	808,877
Seasonal	5,707,215	49.7%	1,141,443	106.0%	162	162	162	50.3%	4,565,772	106.0%	636	636	636	399
Water Heating	5,588,687		2,763,057		600	600	600		2,795,630		597	597	597	599
Total CSS	4,698,141,652		2,668,440,192		812,942	99,442	912,384		2,029,701,461		617,713	89,654	707,366	809,875
General Service - Medium	4,028,386,845	53.0%	2,135,045,028	79.0%	622,143	78,320	700,462	47.0%	1,893,341,817	76.8%	558,263	69,314	627,577	664,020
General Service - Large	2,117,925,208	50.6%	1,071,670,155	81.6%	302,330	35,802	338,132	49.4%	1,046,255,053	78.8%	300,665	30,785	331,449	334,791
0 - 30 Kv	1,260,757,303	52.2%	658,115,312	92.2%	164,317	7,109	171,426	47.8%	602,641,991	105.8%	128,987	6,048	135,035	153,230
30 - 100 Kv	255,888,571	49.2%	125,897,177	102.3%	28,330	1,226	29,556	50.8%	129,991,394	95.9%	30,695	1,043	31,738	30,647
30 - 100 Kv - Curtailed Cust	3,259,616,657	52.7%	1,717,817,978	96.9%	408,097	31,004	439,101	47.3%	1,541,798,679	104.8%	333,148	25,679	358,827	398,964
Over 100 Kv	2,367,113,204	50.1%	1,185,923,715	105.1%	259,755	19,734	279,489	49.9%	1,181,189,489	104.3%	256,452	16,345	272,797	276,143
Over 100 Kv - Curtailed Cust	9,261,300,943		4,759,424,338		1,162,829	94,875	1,257,704		4,501,876,605		1,049,946	79,900	1,129,846	1,193,775
Total G.S. - Large	160,099,773	57.5%	92,116,902	86.7%	24,473	3,343	27,815	42.5%	67,982,871	0.0%	-	-	-	13,908
Street Lighting	27,888,025,118		15,580,312,685		4,558,704	457,446	5,016,150		12,007,712,433		3,305,322	369,743	3,675,065	4,345,608
Total - General Consumers	9,740,000,000	37.6%	3,662,240,000	111.6%	755,428	755,428	755,428	62.4%	6,077,740,000	89.3%	1,541,214	1,541,214	1,541,214	1,148,321
Extra Provincial	37,328,025,118		19,242,552,685		5,314,132	457,446	5,771,578		18,085,472,433		4,846,536	369,743	5,216,280	5,493,929
Integrated System														

SCHEDULE D2-116/08 Prospective Peak Load Responsibility Report Energy (kWh) Weighted by Marginal Cost

2014 Prospective Cost of Service Study
Prospective Peak Load Responsibility Report

	Energy (MW.h) Weighted by Marginal Cost (Hydraulic for Domestic and Export Classes)													
	Spring			Summer			Fall			Winter				
	Peak	Shoulder	Off Peak	Peak	Shoulder	Off Peak	Peak	Shoulder	Off Peak	Peak	Shoulder	Off Peak	Total	Weighted Energy/1000
2013/14 Forecast	9,321,684,778												9,321,684,778	35,511,609
Residential	296,857,432	578,906,221	572,410,919	580,711,075	1,062,514,894	548,589,099	386,571,367	708,257,661	447,765,400	1,061,504,464	1,948,868,047	1,325,586,229	2,616,381,879	9,344,178
Res FRWH	642,320	1,232,999	805,798	1,430,889	2,616,068	1,352,479	680,444	1,237,783	782,491	1,322,348	2,427,765	1,661,125	16,234,306	36,621
Res Seasonal	4,390,006	8,403,057	5,405,695	10,173,061	18,613,436	9,615,594	4,018,892	7,510,068	4,621,665	7,279,742	13,365,234	9,060,814	102,266,821	353,733
GS Small Non-Demand	75,979,533	138,710,543	82,174,814	175,219,886	238,151,435	146,448,653	90,214,480	154,878,938	94,161,829	218,505,953	386,066,538	249,980,847	2,070,933,872	7,491,073
GS FRWH	257,115	432,884	256,449	559,940	824,959	467,997	246,380	422,948	257,140	473,778	837,094	542,024	5,538,687	19,792
GS Seasonal	376,488	577,786	342,292	919,842	1,355,203	768,803	177,060	303,974	184,807	194,575	343,784	222,603	5,707,215	19,499
GS Small Non-Demand Season	95,520,863	172,362,414	106,613,145	208,907,749	337,688,333	201,266,205	115,365,510	200,517,182	125,910,897	265,536,601	472,671,175	314,472,403	2,616,381,879	9,344,178
GS Medium	156,276,015	278,276,904	171,057,268	353,664,873	569,158,527	344,972,176	175,421,255	302,065,410	187,721,435	383,576,567	669,400,176	436,816,238	4,028,386,848	14,317,199
GS Large <30KV	87,009,928	148,669,633	97,040,423	194,495,619	305,769,012	200,802,636	93,028,389	154,402,592	102,905,743	192,284,230	323,021,898	218,495,103	2,117,925,208	7,464,677
GS Large 30-100KV	43,668,667	86,425,624	66,670,255	91,676,598	173,140,393	134,458,970	48,499,743	93,487,168	73,272,875	101,290,416	195,534,002	152,634,622	1,260,357,303	4,237,582
GS Large 30-100KV Curtail	9,652,600	14,507,601	14,507,601	19,386,350	37,492,181	28,528,182	9,847,377	19,126,669	14,536,662	18,815,034	36,793,494	27,889,137	255,888,571	854,088
GS Large > 100KV	122,276,481	241,128,352	186,512,790	228,971,240	424,871,799	334,791,904	127,043,949	245,018,665	190,961,461	263,376,211	503,175,408	391,488,396	3,259,616,657	10,967,043
GS Large > 100KV Curtail	86,907,998	173,462,092	132,380,731	176,729,655	339,820,934	262,337,561	87,744,472	171,745,881	131,609,399	180,420,247	353,412,472	270,541,661	2,367,113,204	7,913,494
Streetslights	-	6,083,791	14,969,529	640,399	11,367,084	30,018,707	4,642,893	9,125,887	18,251,374	10,886,785	18,331,424	35,782,299	160,099,773	430,970
Totals	979,454,843	1,854,024,307	1,251,127,510	2,043,487,174	3,543,336,257	2,244,716,967	1,146,301,962	2,067,941,578	1,392,942,718	2,705,266,691	4,924,248,910	3,435,195,700	27,588,025,118	96,981,489
Exports	285,262,885	523,385,998	284,293,976	708,405,422	1,327,628,225	842,013,346	278,301,821	529,805,614	337,881,609	415,920,979	756,835,829	361,264,326	6,651,000,000	22,630,842
Weighting Factor	4,966	3,043	1,739	5,870	3,011	1,000	5,372	3,189	1,813	6,358	3,588	2,691		

Definition of Periods

- Spring (April 1 to May 31)
- Peak = 7:00 am to 11:00 am and 4:00 pm to 8:00 pm weekdays
- Shoulder = 11:00 am to 4:00 pm weekdays; 8:00 pm to 11:00 pm weekdays; 7:00 am to 11:00 pm weekends & Holidays
- Off-Peak = 11:00 pm to 7:00 am everyday
- Summer (June 1 to Sept 30)
- Peak = 12:00 noon to 8:00 pm weekdays
- Shoulder = 7:00 am to 12:00 noon weekdays; 8:00 pm to 11:00 pm weekdays; 7:00 am to 11:00 pm weekends & Holidays
- Off-Peak = 11:00 pm to 7:00 am everyday
- Fall (Oct 1 to Nov 30)
- Peak = 7:00 am to 11:00 am and 4:00 pm to 8:00 pm weekdays
- Shoulder = 11:00 am to 4:00 pm weekdays; 8:00 pm to 11:00 pm weekdays; 7:00 am to 11:00 pm weekends & Holidays
- Off-Peak = 11:00 pm to 7:00 am everyday
- Winter (December 1 to March 31)
- Peak = 7:00 am to 11:00 am and 4:00 pm to 8:00 pm weekdays
- Shoulder = 11:00 am to 4:00 pm weekdays; 8:00 pm to 11:00 pm weekdays; 7:00 am to 11:00 pm weekends & Holidays
- Off-Peak = 11:00 pm to 7:00 am everyday

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2014 Prospective Cost of Service Study
Prospective Peak Load Report
Using Top 50 Peak Hours

Energy Data

	Forecast	Forecast	Total KW.h			Forecast	KW.h Generated
	# Cust.	Total KW.h Sales Before DSM	Forecast DSM KW.h Savings	Sales After DSM E20	Distribution Losses	Common Bus Losses	
	C90						E10
Residential							
Residential	462,217	7,344,419,997	(41,215,066)	7,303,204,931	494,889,258	743,085,646	9,321,684,778
Seasonal	20,888	87,392,769	-	87,392,769	5,922,022	8,892,029	102,206,821
Water Heating	3,882	13,855,623	-	13,855,623	938,903	1,409,780	16,204,306
Total Residential	486,987	7,445,668,389	(41,215,066)	7,404,453,323	501,750,184	753,387,456	9,440,095,905
GS Small - Single Phase							
Non-Demand	41,074	970,700,754	(10,137,996)	960,562,758	65,090,901	97,735,228	1,253,355,387
Demand	4,221	395,919,368	(5,362,385)	390,556,983	26,465,430	39,738,347	504,903,040
Subtotal	45,295	1,366,620,122	(15,500,381)	1,351,119,741	91,556,331	137,473,574	1,758,258,426
Seasonal	859	4,880,000	-	4,880,000	330,685	496,530	5,707,215
Water Heating	380	4,753,000	-	4,753,000	322,079	483,608	5,558,687
Total Single Phase	46,534	1,376,253,122	(15,500,381)	1,360,752,741	92,209,095	138,453,712	1,769,524,328
GS Small - Three Phase							
Non-Demand	11,465	642,020,523	(6,705,261)	635,315,262	32,250,699	63,612,810	817,138,486
Demand	8,271	1,679,910,515	(22,752,931)	1,657,157,584	84,122,786	165,927,779	2,111,478,839
Total Three Phase	19,736	2,321,931,038	(29,458,192)	2,292,472,846	116,373,484	229,540,589	2,928,617,325
Total G.S.Small							
Non-Demand	52,539	1,612,721,277	(16,843,257)	1,595,878,020	97,341,600	161,348,038	2,070,493,872
Demand	12,492	2,075,829,883	(28,115,316)	2,047,714,567	110,588,215	205,666,126	2,616,381,879
Sub-Total G.S. Small	65,031	3,688,551,160	(44,958,573)	3,643,592,587	207,929,815	367,014,163	4,686,875,751
Seasonal	859	4,880,000	-	4,880,000	330,685	496,530	5,707,215
Water Heating	380	4,753,000	-	4,753,000	322,079	483,608	5,558,687
Total GS Small	66,270	3,698,184,160	(44,958,573)	3,653,225,587	208,582,579	367,994,301	4,698,141,652
General Service - Medium	1,974	3,203,094,420	(28,432,707)	3,174,661,713	161,156,301	317,872,345	4,028,386,845
General Service - Large							
0 - 30 Kv	288	1,716,337,934	(13,856,728)	1,702,481,206	71,101,231	169,005,865	2,117,925,208
30 - 100 kv	39	1,108,570,000	(5,286,871)	1,103,283,129	16,549,247	106,709,581	1,260,757,303
30 - 100 kv - Curtailment Cust's	1	225,000,000	(1,073,046)	223,926,954	3,358,904	21,658,223	255,888,571
Over 100 Kv	14	2,850,479,000	(9,696,069)	2,840,782,931	-	270,700,118	3,259,616,657
Over 100 Kv - Curtailment Cust's	2	2,070,000,000	(7,041,224)	2,062,958,776	-	196,580,731	2,367,113,204
Total G.S.- Large	344	7,970,386,934	(36,953,938)	7,933,432,996	91,009,383	764,654,518	9,261,300,943
SEP							
GSM	24	24,500,000	-	24,500,000	1,243,701	2,453,135	28,196,835
GSL 0 - 30 Kv	5	2,000,000	-	2,000,000	83,527	198,541	2,282,067
Total SEP	29	26,500,000	-	26,500,000	1,327,227	2,651,675	30,478,903
Street Lighting	129,050	88,794,199	-	88,794,199	6,016,988	9,034,622	137,874,809
Sentinel Lighting	25,974	11,692,889	-	11,692,889	792,349	1,189,727	22,224,964
Total - Lighting	155,024	100,487,088	-	100,487,088	6,809,337	10,224,349	160,099,773
Total - General Consumers	710,628	22,444,320,991	(151,560,284)	22,292,760,707	970,635,010	2,216,784,643	27,618,504,021
Extra Provincial		-	-	-	-	-	-
Man Hydro - Construction		88,000,000	-	88,000,000	4,467,170	8,811,259	101,278,429
Integrated System	710,628	22,532,320,991	(151,560,284)	22,380,760,707	975,102,181	2,225,595,902	27,719,782,450

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2014 Prospective Cost of Service Study
Prospective Peak Load Report
Using Top 50 Peak Hours

	Demand Data													
	CP Load Factor	CP @ Meter Before DSM		CP @ Meter After DSM		Adjust To Recon.	CP @ Meter Reconciled MW	Distrib Losses MW	Common Bus Losses MW	Forecast Cumulative DSM MW Savings to 2013/14	CP @ Gen.	Class Coinc. Factor	Class Demand NCP MW @ Meter D50	Class Demand NCP MW @ Gen. D20
		Non-Recon MW	Forecast DSM MW Savings	Non-Recon. MW	Adjust %age									
Residential														
Residential	50.5%	1,660.2	(8.5)	1,651.7	80.9%	(58.1)	1,593.6	125.1	147.3	181.47	2,047.5	90.2%	1,766.7	2,269.9
Seasonal	157.8%	6.3		6.3	-		6.3	0.5	0.6	0.00	7.4	8.0%	79.0	92.6
Water Heating	67.9%	2.3		2.3	-		2.3	0.2	0.2	0.00	2.7	80.0%	2.9	3.4
Total Residential	50.9%	1,668.9	(8.5)	1,660.3	80.9%	(58.1)	1,602.2	125.8	148.1	181.47	2,057.6	86.7%	1,848.7	2,365.9
GS Small - Single Phase														
Non-Demand	62.0%	178.7	(2.7)	176.0	6.0%	(4.3)	171.7	13.5	15.9	27.60	228.7	86.3%	199.0	265.0
Demand	66.0%	68.5	(1.3)	67.2	0.7%	(0.5)	66.7	5.2	6.2	10.22	88.3	89.8%	74.2	98.3
Subtotal	63.1%	247.2	(4.0)	243.2	6.7%	(4.8)	238.4	18.7	22.0	37.82	316.9	87.3%	273.2	363.3
Seasonal	162.5%	0.3		0.3	0.0%	-	0.3	0.0	0.0	0.00	0.4	8.0%	4.3	5.0
Water Heating	72.1%	0.8		0.8	0.0%	-	0.8	0.1	0.1	0.00	0.9	75.0%	1.0	1.2
Total Single Phase	63.3%	248.3	(4.0)	244.3	6.7%	(4.8)	239.5	18.8	22.1	37.82	318.2	86.0%	278.5	369.5
GS Small - Three Phase														
Non-Demand	62.0%	118.2	(1.8)	116.4	4.0%	(2.9)	113.6	6.6	10.3	18.26	148.7	86.3%	131.6	172.3
Demand	66.0%	290.6	(5.6)	285.0	2.9%	(2.1)	282.9	16.4	25.7	43.36	368.3	89.8%	315.0	410.2
Total Three Phase	64.8%	408.8	(7.4)	401.4	6.9%	(4.9)	396.5	23.0	36.0	61.62	517.0	88.8%	446.6	582.5
Total G.S.Small														
Non-Demand	61.4%	296.9	(4.5)	292.4	10.0%	(7.2)	285.3	20.1	26.2	45.86	377.4	86.3%	330.5	437.3
Demand	65.1%	359.0	(6.9)	352.1	3.6%	(2.6)	349.6	21.7	31.8	53.58	456.6	89.8%	389.3	508.5
Sub-Total G.S. Small	64.2%	656.0	(11.4)	644.5	13.5%	(9.7)	634.8	41.7	58.0	99.44	834.0	88.2%	719.8	945.8
Seasonal	162.4%	0.3		0.3	0.0%	-	0.3	0.0	0.0	0.00	0.4	8.0%	4.3	5.0
Water Heating	72.1%	0.8		0.8	0.0%	-	0.8	0.1	0.1	0.00	0.9	75.0%	1.0	1.2
Total GS Small	64.2%	657.1	(11.4)	645.6	13.5%	(9.7)	635.9	41.8	58.1	99.44	835.3	87.7%	725.1	952.0
General Service - Medium	72.4%	505.0	(6.8)	498.3	5.5%	(4.0)	494.3	28.7	44.8	78.32	646.2	91.5%	540.2	706.2
General Service - Large														
0 - 30 Kv	79.6%	246.1	(2.7)	243.5	0.0%	-	243.5	11.5	21.9	35.80	312.6	89.3%	272.6	350.1
30 - 100 kV	91.0%	139.1	(1.0)	138.1	-		138.1	2.5	12.0	7.02	159.6	74.0%	186.6	215.7
30 - 100 kV - Curtailment Cust's	98.9%	26.0	(0.2)	25.8	-		25.8	0.5	2.3	1.31 †	29.8	93.6%	27.6	31.9
Over 100 Kv	91.0%	357.6	(1.3)	356.3	-		356.3	-	30.5	30.46	417.3	87.4%	407.7	477.5
Over 100 Kv - Curtailment Cust's	99.3%	238.0	(0.8)	237.1	-		237.1	-	20.3	20.27 †	277.7	81.2%	292.0	342.0
Total G.S. - Large	90.4%	1,006.7	(6.0)	1,000.8	0.0%	-	1,000.8	14.5	87.0	94.87	1,197.1	84.3%	1,186.5	1,417.2
SEP														
GSM	46.9%	6.0		6.0	-		6.0	0.3	0.5		6.9	81.0%	7.4	8.5
GSL 0 - 30 Kv	116.3%	0.2		0.2	-		0.2	0.0	0.0		0.2	14.3%	1.4	1.6
Total SEP	49.1%	6.2		6.2	-		6.2	0.4	0.6	0.00	7.1	70.5%	8.7	10.0
Street Lighting	119.7%	8.5		8.5	-		8.5	0.7	0.8	2.66	12.6	38.2%	22.2	32.9
Sentinel Lighting	119.7%	1.1		1.1	-		1.1	0.1	0.1	0.68	2.0	38.2%	2.9	5.2
Total - Lighting	119.7%	9.6		9.6	0.0%	-	9.6	0.8	0.9	3.34	14.6	38.2%	25.1	38.1
Total - General Consumers	66.5%	3,853.4	(32.7)	3,820.8	100.0%	(71.8)	3,748.9	211.9	339.5	457.45	4,757.8	86.5%	4,334.3	5,489.3
Extra Provincial	0.0%	0.0		0.0	-		-	-	-		0.0			
Man Hydro - Construction	72.4%	13.9		13.9	-		13.9	0.8	1.3		15.9			
Integrated System	66.5%	3,867.3	(32.7)	3,834.6	100.0%	(71.8)	3,762.8	212.7	340.8		4,773.7			