



**Lakefront  
Utilities  
Inc.**

207 Division Street, Cobourg, ON K9A 4L3 • [www.lusi.on.ca](http://www.lusi.on.ca) • Tel: (905) 372-2193 • Fax: (905) 372-2581

January 28, 2008

Ms. Kristen Walli – Board Secretary  
Ontario Energy Board  
P.O. Box 2319, 2300 Yonge St.  
Toronto, Ontario  
M4P 1E4

Dear Ms. Walli:

**RE: Lakefront Utilities Inc – 2008 Electricity Distribution Rate Application Ref:  
EB-2007-0761, Board Staff response**

In response to your correspondence dated January 14, 2008, please find attached Lakefront Utilities Inc. response to Ontario Energy Board Staff Interrogatories listed in your letter.

As per Procedural Order No. 1 dated December 19, 2007 we have enclosed two paper copies along with a CD.

Should you have any questions regarding the above, please call me at (905) 372-2193.

Yours truly,

*Original signed*

Dereck C. Paul  
Lakefront Utilities Inc.

Copy: Christie Clark – Case Manager - OEB

# Lakefront Utilities Inc.

## Response To Board Staff Interrogatories (Board File: EB-2007-0761)

---

### Rate Application

## 1 COST OF CAPITAL

### 1.1 Ref: Exhibit(s) Exhibit 6 / Tab 1 / Schedule 2 – Short-term Debt

In the table shown under “Capital Structure”, Lakefront Utilities has used a short-term debt rate (or “Cost Rate”) of 4.77%. The Board Report on Cost of Capital and 2nd Generation Incentive Regulation Mechanism for Ontario Electricity Distributors, issued December 20, 2006 (the “Board Report”) states the following in section 2.2.2: **“The Board has determined that the deemed short term debt rate will be calculated as the average of the 3-month bankers’ acceptance rate plus a fixed spread of 25 basis points.”** This is consistent with the Board’s method for accounting interest rates (i.e. short term carrying cost treatment) for variance and deferral accounts. The Board will use the 3-month bankers’ acceptance rate as published on the Bank of Canada’s website, for all business days of the same month as used for determining the deemed long-term debt rate and the ROE.

For the purposes of distribution rate-setting, the deemed short-term debt rate will be updated whenever a cost of service rate application is filed. The deemed short-term debt rate will be applied to the deemed short-term debt component of a distributor’s rate base. Further, consistent with updating of the ROE and deemed long-term rate, the deemed short-term debt rate will be updated using data available three full months in advance of the effective date of the rates.”  
[Emphasis in original]

- a) Please provide the derivation of the 4.77% short-term debt rate estimate showing the calculations, data used and identifying data sources.
- b) Please confirm if Lakefront Utilities is proposing that the deemed short-term debt rate would be updated based on January 2008 Consensus Forecasts and Bank of Canada data, in accordance with the methodology documented in section 2.2.2 of Board Report. If Lakefront Utilities is not proposing that the methodology in the Board Report be followed, please provide Lakefront Utilities’ reasons for varying from the methodology in the Board Report.

**LUI's Response:**

- a. At the time of preparation of our Rate Application in June 2007, LUI derived the “deemed” 4.77% short-term debt rate base on the Bank of Canada’s website average rate for three-month banker’s acceptance of 4.52%, resulting in a deemed short-term debt rate of:

$$4.52\% + 25 \text{ basis points} = 4.77\%$$

- b. LUI expects that this deemed short-term debt rate would be updated based on Consensus Forecasts and Bank of Canada’s data as the Board sees fit, whether it is data at the date of filing of LUI’s Application or Board approval of the Application.

**1.2 Ref: Exhibit(s) Exhibit 6 / Tab 1 / Schedule 1, Exhibit 6 / Tab 1 / Schedule 4, and Exhibit 1 / Tab 2 / Schedule 1**

**Return on Equity**

Lakefront Utilities states that it is requesting an equity return of 8.68% per the Board’s formulaic approach as documented in Appendix B of the Board Report, with the final ROE for 2008 rate-setting purposes to be established based on January 2008 Consensus Forecasts and Bank of Canada data per the methodology in the Board Report. Please provide further information on the derivation of the 8.68% ROE shown in the table labelled “Return on Equity Calculation” in Exhibit 6 / Tab 1 / Schedule 4 showing the source data used, and identifying fully the data sources and date(s) of the data used.

**LUI's Response:**

$$ROE_t = 9.35\% + 0.75 \times (LCBF_t - 5.50\%)$$

<i>Government of Canada Bond Yields</i>	
3-month forecast of the 10-year bond yield	4.60%
12-month forecast of the 10-year bond yield	4.80%
Average actual prior month 30-year bond yield	4.03%
Average actual prior month 10-year bond yield	4.12%
Long Canada Bond Forecast (LCBF)	4.61%

$$9.35 + 0.75 \times (4.61 - 5.50) = 8.6825$$

LUI is expecting that this deemed short-term debt rate would be updated based on Consensus Forecasts and Bank of Canada’s data as the Board sees fit, whether it is data at the date of filing of LUI’s Application or Board approval of the Application.

**1.3 Ref: Exhibit(s) Exhibit 6 / Tab 1 / Schedule 2,  
Exhibit 6 / Tab 1/ Schedule 3 and  
Exhibit 6 / Tab 1 / Schedule 4**

**Long-Term Debt and Weighted Average Cost of Capital**

Lakefront Utilities provides data on its cost of debt in Exhibit 6 / Tab 1 / Schedule 2, and also states in a note at the bottom of the Schedule that: "Lakefront Utilities [Lakefront Utilities] intends to acquire a loan for an additional \$1,000,000 in 2008 to move to the capital structure closer to the "deemed" amount of 53.33% Debt and 46.67% Equity Capital Structure. This additional debt will be required as Lakefront Utilities continues with system optimization and Capital Infrastructure plans as outlined in our capital plans." Information on this planned debt is shown in the Table "Cost of Debt" under Exhibit 6 / Tab 1 / Schedule 3, with an estimated debt rate of 6.45%.

In the Board Report, the Board states in section 2.2.1 the following policy for setting the debt rate:

"For rate-making purposes, the Board considers it appropriate that further distinctions be made between affiliated debt and third party debt, and between new and existing debt.

**The Board has determined that for embedded debt the rate approved in prior Board decisions shall be maintained for the life of each active instrument, unless a new rate is negotiated, in which case it will be treated as new debt.**

**The Board has determined that the rate for new debt that is held by a third party will be the prudently negotiated contracted rate. This would include recognition of premiums and discounts. For new affiliated debt, the Board has determined that the allowed rate will be the lower of the contracted rate and the deemed long-term debt rate. This deemed long-term debt rate will be calculated as the Long Canada Bond Forecast plus an average spread with "A/BBB" rate corporate bond yields.** The Long Canada Bond Forecast is comprised of the 10-year Government of Canada bond yield forecast (Consensus Forecast) plus the actual spread between 10-year and 30-year bond yields observed in Bank of Canada data. The average spread with "A/BBB" rate corporate bond yields is calculated from the observed spread between Government of Canada Bonds and "A/BBB" corporate bond yield data of the same term from Scotia Capital Inc., both available from the Bank of Canada.

**For all variable-rate debt and for all affiliate debt that is callable on demand the Board will use the current deemed long-term debt rate.** When setting distribution rates at rebasing these debt rates will be adjusted regardless of whether the applicant makes a request for the change." [Emphasis in original]

c) Please restate the information shown in Exhibit 6 / Tab 1 / Schedule 3 to show the information in the following table for debt instruments in effect and the weighted average cost of long-term debt of Lakefront Utilities for each year:

- i 2006 Board-approved;
- ii 2006 actual;
- iii 2007 bridge; and
- iv 2008 forward test.

**LUI's Response:**

Year	Name of Instrument	Debt Holder	Is debt holder affiliated with LUI? (Y/N)	Issue Date	Maturity Date	Principal	Interest Rate
<b>2006 BA</b>	Long-Term Debt	Town of Cobourg	Yes	01-May-00	Open	7,000,000	7.25%
<b>2006</b>	Long-Term Debt	Town of Cobourg	Yes	01-May-00	Open	7,000,000	7.25%
<b>2007</b>	Long-Term Debt	Town of Cobourg	Yes	01-May-00	Open	7,000,000	7.25%
<b>2008</b>	Long-Term Debt	Town of Cobourg	Yes	01-May-00	Open	7,000,000	7.25%
<b>2008 (Projected)</b>	Long-Term Debt	Financial Institution	No	TBD in 2008	TBD	684,384	6.25%

7.161%

d) While Lakefront Utilities shows two debt instruments of \$7,000,000 with a debt rate of 7.25% and \$1,000,000 with a debt rate of 6.45% for the 2008 test year in Exhibit 6 / Tab 1 / Schedule 3, Lakefront Utilities has assumed a weighted cost of debt (Cost Rate) of 7.25% for the 2008 test year in the "Capital Structure" table in Exhibit 6 / Tab 1 / Schedule 2. Please explain why the cost of the new debt is not factored into the weighted cost of debt and hence into the weighted average cost of capital. Provide updates for Exhibit 6 / Tab 1 / Schedule 2 and Exhibit 6 / Tab 1 / Schedule 4, if necessary.

**LUI's Response:**

**This was a calculation error that LUI is correcting. Please find below updates for Exhibit 6 / Tab 1 / Schedule 2 and Exhibit 6 / Tab 1 / Schedule 3 and Exhibit 6 / Tab 1 / Schedule 4.**

## UPDATED Exhibit 6 / Tab 1 / Schedule 2

### CAPITAL STRUCTURE

<u>2006 Board Approved</u>		Actual	Deemed		
Elements	\$	Ratio (%)	Ratio (%)	Cost Rate (%)	Return (%)
Long-term debt Municipal	7,000,000	52.5%	50.0%	7.25%	3.63%
Unfunded short-term debt	-	0.0%			
Deposits	-	0.0%			
Common equity	6,337,916	47.5%	50.0%	9.00%	4.50%
<b>Total</b>	<b>13,337,916</b>	<b>100.0%</b>			<b>8.13%</b>

<u>2006 Actual</u>		Actual	Deemed		
Elements	\$	Ratio (%)	Ratio (%)	Cost Rate (%)	Return (%)
Long-term debt Municipal	7,000,000	52.26%	50.00%	7.25%	3.79%
Unfunded short-term debt	-				
Deposits	250,000	1.87%		Prime-1.85%	0.09%
Common equity	6,144,880	45.87%	50.00%	9.00%	4.13%
<b>Total</b>	<b>13,394,880</b>	<b>100.0%</b>			<b>8.01%</b>

<u>2007 Bridge</u>		Forecast	Deemed		
Elements	\$	Ratio (%)	Ratio (%)	Cost Rate (%)	Return (%)
Long-term debt Municipal	7,000,000	49.95%	50.00%	7.25%	3.62%
Unfunded short-term debt	-				
Deposits	280,001	2.00%		Prime-1.85%	0.10%
Common equity	6,732,807	48.05%	50.00%	9.00%	4.32%
<b>Total</b>	<b>14,012,808</b>	<b>100.00%</b>			<b>8.04%</b>

<u>2008 Test</u>		Forecast	Deemed		
Elements	\$	Ratio (%)		Cost Rate (%)	Return (%)
Long-term debt Municipal	7,000,000	44.94%			
Other Long-Term Debt	684,384	4.4%	49.33%	7.161%	3.53%
Deposits	300,000	1.9%			
Unfunded short-term debt	323,100	2.1%	4.0%	4.77%	0.19%
Common equity	7,270,023	46.67%	46.67%	8.68%	4.05%
<b>Total</b>	<b>15,577,507</b>	<b>100.0%</b>			<b>7.77%</b>

### UPDATED Exhibit 6 / Tab 1 / Schedule 3

COST OF DEBT												
	2006 Board Approved			2006 Actual			2007 Bridge			2008 Test		
	Principle	Carrying Costs	Calculated Cost Rate	Principle	Carrying Costs	Calculated Cost Rate	Principle	Carrying Costs	Calculated Cost Rate	Principle	Carrying Costs	Calculated Cost Rate
<b>Long-Term Debt</b>												
Town of Cobourg	7,000,000	507,500	7.25%	7,000,000	507,500	7.25%	7,000,000	507,500		7,000,000	507,500	7.25%
Financial Institution (projected)										684,384	42,774	6.25%
<b>Total</b>	<b>7,000,000</b>	<b>507,500</b>	<b>7.25%</b>	<b>7,000,000</b>	<b>507,500</b>	<b>7.25%</b>	<b>7,000,000</b>	<b>507,500</b>		<b>7,684,384</b>	<b>550,274</b>	<b>7.16%</b>

Short-Term Debt												
	Principle	Carrying Costs	Calculated Cost Rate	Principle	Carrying Costs	Calculated Cost Rate	Principle	Carrying Costs	Calculated Cost Rate	Principle	Carrying Costs	Calculated Cost Rate
LUI										623,100	29,722	4.77%
Unfunded Debt												
Operating Loan												
<b>Total</b>	<b>-</b>	<b>-</b>		<b>-</b>	<b>-</b>		<b>-</b>	<b>-</b>		<b>623,100</b>	<b>29,722</b>	<b>4.77%</b>

### UPDATED Exhibit 6 / Tab 1 / Schedule 4

#### Return on Equity Calculation

<u>Government of Canada Bond Yields</u>	<u>Rate</u>
3-month forecast of the 10-year bond yield	<b>4.60%</b>
12-month forecast of the 10-year bond yield	<b>4.80%</b>
Average actual prior month 30-year bond yield	<b>4.03%</b>
Average actual prior month 10-year bond yield	<b>4.12%</b>
Long Canada Bond Forecast	<b>4.61%</b>
<b>Return on Equity</b>	<b>8.68%</b>

#### WEIGHTED AVERAGE COST OF CAPITAL

	<u>Deemed Portion</u>	<u>Effective Rate</u>	<u>Average Cost of Capital</u>
Long-Term Debt	<b>49.33%</b>	<b>7.16%</b>	<b>3.53%</b>
Short-Term Debt	<b>4.00%</b>	<b>4.77%</b>	<b>0.19%</b>
Return on Equity	<b>46.67%</b>	<b>8.68%</b>	<b>4.05%</b>
<b>Regulated Rate of Return</b>	<b>100.00%</b>		<b>7.77%</b>

e) Please provide further information, to the extent possible, of the new debt of \$1,000,000 that Lakefront Utilities indicates that it will acquire. Specifically, indicate:

- i If the debt-holder will be affiliated to Lakefront Utilities or will be third-party;
- ii When Lakefront Utilities anticipates incurring the debt; and
- iii What form of debt Lakefront Utilities anticipates that it will incur (e.g. promissory note, demand installment loan, secured or unsecured debenture).

f) For the new debt:

- i Provide the derivation of the forecasted debt cost of 6.45%, providing the calculation and data used, and identifying all data sources used.
- ii Explain if and how the proposed rate of 6.45% complies with the debt rate policy for rate-setting, as documented in section 2.2.1 and Appendix A of the Board Report.
- iii If the proposed rate does not comply with the methodology documented in the Board Report, please provide a justification for the deviation from the Board's Cost of Capital guidelines.

**LUI's Response:**

- e. **The \$1,000,000 new debt was an estimated amount LUI will acquire in 2008. Our objective is to move towards the deemed debt/equity gradually. In light of where we anticipate our rate base to be in 2008 (\$15,577,507), we anticipate the figure will be closer to \$684K. The debt holder will not be affiliated to LUI, it will be a third-party. It's expected to be an unsecured debenture.**
  
- f. **The long-term debt forecast used in the updated recalculation above (c) has a rate of 6.25% in compliance with the Report of the Board on Cost of Capital and 2<sup>nd</sup> Generation Incentive Regulation for Ontario's Electricity Distributors dated December 20,2006 and the below table on page 4.**

**Table 2: 2006 Rates Capital Structure and Debt Rates**

Rate Base	Deemed Capital Structure		Deemed Debt Rate (DR)
	Debt (D)	Equity (1-D)	
> \$1.0 billion	65%	35%	5.8%
\$250 million - \$1.0 billion	60%	40%	5.9%
\$100 million - \$250 million	55%	45%	6.0%
< \$100 million	50%	50%	6.25%

## 2 RATE BASE

### 2.1 Ref: Exhibit(s) Exhibit 2/ Tab 1/ Schedule 1

a) Please provide Lakefront Utilities Inc.'s Code of Business Conduct.

#### LUI's Response:

Attached as Appendix VIII, please find a copy of LUI's Code of Business Conduct.

b) For the years 2002 to 2008 inclusive, please provide a table listing the following information (actual dollars where available, or expected, planned or projected dollars, or % where indicated):

i Net income;

ii Actual Return on Equity (%);

iii Allowed Return on Equity (%);

iv Retained Earnings;

v Dividends to Shareholders;

vi Sustainment Capital Expenditures excluding smart meters;

vii Development Capital Expenditures excluding smart meters;

viii Operations Capital Expenditures;

ix Smart meters Capital Expenditures;

x Other Capital Expenditures (identify);

xi Total Capital Expenditures including and excluding smart meters;

xii Depreciation.

#### LUI's Response:

Please refer to Table below

	2002	2003	2004	2005	2006	2007	2008
Net Income	\$ 262,096	\$ 1,126,612	\$ 949,332	\$ 951,412	\$ 324,980	\$ 152,741	\$ 710,218
Actual Return on Equity (%)	5.03%	17.78%	15.20%	14.41%	5.14%	2.40%	10.14%
Allowed Return on Equity (%)	9.80%	9.80%	9.80%	9.80%	9.00%	9.00%	8.68%
Retained Earnings	\$ 526,848	\$ 1,653,460	\$ 1,564,880	\$ 1,916,292	\$ 1,641,272	\$ 1,685,999	\$ 2,322,175
Dividends to Shareholders			\$ 800,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000
Sustainment Capital Expenditures - NO SM	\$ 488,683	\$ 346,427	\$ 530,106	\$ 499,490	\$ 503,583	\$ 1,328,932	\$ 468,746
Development Capital Expenditures - NO SM		\$ 220,000	\$ 73,600	\$ 59,200	\$ 129,600		
Operations Capital Expenditures	\$ 10,569	\$ 196,156	\$ 88,073	\$ 398,529	\$ 1,003,903	\$ 135,000	\$ 435,000
Smart Meter Capital Expenditures						\$ 80,000	\$ 2,037,923
Other Capital Expenditures (identify)							
Total Capital Expenditures (include SM)	\$ 499,252	\$ 762,583	\$ 691,779	\$ 957,219	\$ 1,637,086	\$ 1,543,932	\$ 2,941,669
Total Capital Expenditures (exclude SM)	\$ 499,252	\$ 762,583	\$ 691,779	\$ 657,219	\$ 1,637,086	\$ 1,463,932	\$ 903,746
Depreciation	\$ 662,166	\$ 685,742	\$ 724,056	\$ 749,415	\$ 824,816	\$ 780,981	\$ 888,431

No forecast made for development capital expenditures in 2007 and 2008

**2.2 Ref: Exhibit(s) Exhibit 2/Tab 1/Schedule 1**

For each of the years 2002 to 2008 please provide a table listing the following information (actual dollars where available, or expected, planned or projected dollars, or % where indicated):

- a) Average Fixed Assets in Service
- b) Average Depreciation Rate as a % of Average Fixed Assets in Service;
- c) Working Capital as a % of Average Fixed Assets in Service;
- d) Number of Customer Connections in Each Customer Category
  - i New Connections
  - ii Service Upgrade Connections
  - iii Population (actual or estimated) of Service Area.

**LUI's Response:**  
**Please refer to table below**

	2002	2003	2004	2005	2006	2007	2008
Average Fixed Assets In Service	10,102,031	9,943,686	9,906,489	9,875,656	9,884,326	10,563,358	11,975,950
Average Depreciation Rate (%) of Avg FA in Service	6.55%	6.90%	7.31%	7.59%	8.34%	7.39%	7.42%
Working Capital (%) of Avg FA in Service	23.62%	37.04%	39.41%	33.43%	35.00%	32.76%	30.07%
Customer Connections - New Connections	98	103	118	101	169	118	131
Customer Connections - Service Upgrade Connections	52	69	78	80	63	78	70
Population of Service Area	21,800	22,000	22,400	22,800	23,200	23,600	24,000

**2.3 Ref: Exhibit(s) Exhibit 2/Tab1/Schedule 1**

a) Please provide a record of reliability indices for the years 2002 through 2008 and indicate the desired values.

**LUI's Response:**

The table below indicates the indices for the years 2002 through 2007 with target values.

2.3	Service reliability Indices							
		2002	2003	2004	2005	2006	2007	2008 (Desired Values are an avg of last 3 years recognizing uncontrollable items)
SAIDI		1.709	11.099	6.34	1.59	3.69	2.36	2.55
SAIFI		0.963	1.884	0.599	1.6	1.85	2.03	1.83
CAIDI		1.77	5.89	10.58	0.99	1.99	1.16	1.38

b) Indicate if and how the reliability indices relate to the capital expenditures for each of the projects that have been undertaken for reasons of reliability.

**LUI's Response:**

LUI performed a complete system inspection and assessment to determine any deteriorated components that required maintenance or replacement as the indices did not provide adequate information in which to establish a capital replacement program.

c) None of the projects indicated have been initiated for reasons of reliability considerations. Please explain why this is the case.

**LUI's Response:**

LUI always considers reliability as part of its capital budgeting process and relied on a condition assessment, municipal requirements, developer requirements and voltage conversion plans to establish capital expenditures.

**2.4 Ref: Exhibit(s) Exhibit 2/ Tab 1/Schedule 1/Page 2/Line 6.**

Please confirm that Lakefront Utilities' description of Rate Base is arithmetically as follows:

Rate Base = Gross Assets in Service – (Accumulated Depreciation + Contributed Capital) + Working Capital

**LUI's Response:**

**That is correct.**

**2.5 Ref: Exhibit(s) Exhibit 2/ Tab 1/ Schedule 2/ Page 1**

a) Please confirm that the 2008 Test Year projection of \$15,577,513 contains within it, the \$2 million of Smart Meter capital expenditures as described in Exhibit 2/Tab3/Schedule1 page 7 (Summary of Lakefront Utilities Smart Meter Plan).

**LUI's Response:**

**The \$15,577,513 contains LUI Smart Meter projected capital expenditures.**

b) Please confirm that there is no capital contribution receivable associated with the Smart Meter capital expenditures that is included within the above mentioned rate base. If such capital contribution is receivable please provide details.

**LUI's Response:**

**There are no capital contribution receivables associated with Smart Meters in the rate base.**

c) Lakefront Utilities is not one of the utilities authorized by the Board's decision (EB-2007-0063) of August 8, 2007 to include Smart Meters in the Rate Base.

i Please indicate why the amounts are 4t for Smart meters can be included in the Rate Base?

**LUI's Response:**

**Lakefront took the approach of including Smart Meters cost for 2008 distribution requirement because of the Government's mandate to implement Smart Meters by 2010 and our coordination of activities with the CHEC group. Approximately half of our customers' meter seals are expired or on the verge of expiration. We have advised Measurement Canada and sought a reprieve. However, we believe it is imprudent and unfair to our customers to replace expired seal meters with just kWh meters only to change them out within a short period. The cost, of approximately \$300,000 will be a stranded cost that our rate payers would have to bear unnecessarily.**

**Under normal operational circumstances, LUI would change the expired seals and/or replace meters and the amounts would be included as a capital expenditure in our Rate Base. As we are mandated to have Smart Meters in place by 2010 by the provincial government, we felt it was logical to treat this capital expenditure no differently than regular meters replacement / changes.**

**Section 53.18 of the *Electricity Act, 1998* allows the Board to authorize discretionary metering by way of an order. In light of the circumstances described above, it is in the interest of LUI's ratepayers that LUI is permitted to move forward with its Smart Meter implementation and include its forecast 2008 Smart Meter costs in its revenue requirement.**

d) Provide a revised set of Capital Asset and Capital Expenditure and accumulation tables with Smart Meters excluded.

**LUI's Response:**

**Please refer to the table below**

**Lakefront Utilities Inc.  
RATE BASE SUMMARY**

	2006 Board Approved	2006 Actual	Variance form 2006 Board Approved	Variance %	2006 Actual	2007 Bridge	Variance form 2006 Actual	Variance %	2007 Bridge	2008 Test	Variance form 2007 Bridge	Variance %
	(\$'s)	(\$'s)	(\$'s)		(\$'s)	(\$'s)	(\$'s)		(\$'s)	(\$'s)	(\$'s)	
<b><u>Fixed Assets in Service</u></b>												
Opening Balance	9,586,771	9,586,771	-	--	9,586,771	10,181,881	(595,110)	-5.8%	10,181,881	10,944,834	(762,953)	-7.0%
Ending Balance	9,803,591	10,181,881	(378,290)	-3.7%	10,181,881	10,944,834	(762,953)	-7.0%	10,944,834	11,023,439	(78,605)	-0.7%
<b>Average Balance</b>	<b>9,695,181</b>	<b>9,884,326</b>	<b>(189,145)</b>	<b>-1.9%</b>	<b>9,884,326</b>	<b>10,563,358</b>	<b>(679,032)</b>	<b>-6.4%</b>	<b>10,563,358</b>	<b>10,984,137</b>	<b>(420,779)</b>	<b>-3.8%</b>
<b>Allowance for Working Capital</b>	<b>3,134,005</b>	<b>3,343,721</b>	<b>(209,716)</b>	<b>-6.3%</b>	<b>3,343,721</b>	<b>3,461,042</b>	<b>(117,321)</b>	<b>-3.4%</b>	<b>3,461,042</b>	<b>3,569,715</b>	<b>(108,674)</b>	<b>-3.0%</b>
<b>Utility Rate Base</b>	<b>12,829,186</b>	<b>13,228,047</b>	<b>(398,861)</b>	<b>-3.0%</b>	<b>13,228,047</b>	<b>14,024,399</b>	<b>(796,352)</b>	<b>-5.7%</b>	<b>14,024,399</b>	<b>14,553,852</b>	<b>(529,452)</b>	<b>-3.6%</b>
<b><u>Working Capital</u></b>												
Distribution Expenses - Operation	524,734	481,735	42,999	8.9%	481,735	568,635	-86,900	-15.3%	568,635	603,180	-34,545	-5.7%
Distribution Expenses - Maintenance	104,971	88,033	16,938	19.2%	88,033	126,011	-37,978	-30.1%	126,011	124,070	1,941	1.6%
Billing & Collecting	223,961	420,421	-196,460	-46.7%	420,421	441,986	-21,565	-4.9%	441,986	453,844	-11,858	-2.6%
Community Relations	8,918	17,130	-8,212	-47.9%	17,130	138,936	-121,806	-87.7%	138,936	100,175	38,761	38.7%
Administrative & General Expenses	928,755	801,751	127,004	15.8%	801,751	803,480	-1,729	-0.2%	803,480	1,015,498	-212,018	-20.9%
Taxes other than Income Taxes	21,919	52,040	-30,121	-57.9%	52,040	53,601	-1,561	-2.9%	53,601	55,209	-1,608	-2.9%
<b>Total Eligible Distribution Expenses</b>	<b>1,813,258</b>	<b>1,861,110</b>	<b>-47,852</b>	<b>-2.6%</b>	<b>1,861,110</b>	<b>2,132,649</b>	<b>-271,539</b>	<b>-12.7%</b>	<b>2,132,649</b>	<b>2,351,976</b>	<b>-219,327</b>	<b>-9.3%</b>
Power Supply Expenses	19,080,109	20,430,363	-1,350,254	-6.6%	20,430,363	20,940,963	-510,600	-2.4%	20,940,963	21,446,126	-505,163	-2.4%
<b>Total Expenses for Working Capital</b>	<b>20,893,367</b>	<b>22,291,473</b>	<b>-1,398,106</b>	<b>-6.3%</b>	<b>22,291,473</b>	<b>23,073,612</b>	<b>-782,139</b>	<b>-3.4%</b>	<b>23,073,612</b>	<b>23,798,102</b>	<b>-724,490</b>	<b>-3.0%</b>
<b>Working Capital Allowance (15%)</b>	<b>3,134,005</b>	<b>3,343,721</b>	<b>-209,716</b>	<b>-6.3%</b>	<b>3,343,721</b>	<b>3,461,042</b>	<b>-117,321</b>	<b>-3.4%</b>	<b>3,461,042</b>	<b>3,569,715</b>	<b>-108,673</b>	<b>-3.0%</b>

**2.6 Ref: Exhibit(s) Exhibit2/Tab2/Schedule1**

Please confirm that the continuity statement has included interest during construction and all overheads.

**LUI's Response:**

**Yes, the continuity statement included interest during construction and all overheads.**

**2.7 Ref: Exhibit(s) Exhibit 2/Tab2/Schedule2/p.1-4.**

Please provide a listing of gross assets on a functional basis (distribution, general plant etc.)

**LUI's Response:**

**Please refer to table below**

**GROSS ASSETS**

File: OEB 2 RATE BASE - 2.7 Gross Assets

**Intangible Plant**

1610-Tangible Plant

**Distribution Plant**

1805-Land

1806-Land Rights

1808-Buildings and Fixtures

1815-Transfrmr Station Equip - Normally Primary:

1820-Dist Station Equip - Normally Primary < 50 k

1830-Poles, Towers and Fixtures

1835-Overhead Conductors and Devices

1840-Underground Conduit

1845-Underground Conductors and Devices

1850-Line Transformers

1855-Services

1860-Meters

**General Plant**

1908-Buildings and Fixtures

1920-Computer Equipment - Hardware

1925-Computer Software

1915-Office Furniture and Equipment

1930-Transportation Equipment

1940-Tools, Shop and Garage Equipment

1945-Measurement and Testing Equipment

1960-Miscellaneous Equipment

1980-System Supervisory Equipment

1995-Contributions and Grants - Credit

**Gross Asset Total**

	2006 Board Approved	2006 Actual	Variance from 2006 Board Approve	2006 Actual	2007 Bridge	Variance from 2006 Actual	2007 Bridge	2008 Test	Variance form 2007 Bridge
	(\$'s)	(\$'s)		(\$'s)	(\$'s)		(\$'s)	(\$'s)	
<b>Intangible Plant</b>									
1610-Tangible Plant	<b>293,600</b>	<b>482,400</b>	<b>188,800</b>	<b>482,400</b>	<b>482,400</b>	-	<b>482,400</b>	<b>482,400</b>	-
<b>Distribution Plant</b>									
1805-Land	54,465	219,284	164,819	219,284	219,284	-	219,284	219,284	-
1806-Land Rights	11,363	11,363	-	11,363	11,363	-	11,363	11,363	-
1808-Buildings and Fixtures	385,981	765,069	379,088	765,069	815,069	50,000	815,069	825,069	10,000
1815-Transfrmr Station Equip - Normally Primary:	21,401	-	(21,401)	-	-	-	-	-	-
1820-Dist Station Equip - Normally Primary < 50 k	2,517,601	2,730,090	212,489	2,730,090	2,730,090	-	2,730,090	2,730,090	-
1830-Poles, Towers and Fixtures	3,658,034	3,883,075	225,041	3,883,075	4,142,537	259,462	4,142,537	4,257,766	115,229
1835-Overhead Conductors and Devices	3,253,759	3,620,842	367,083	3,620,842	4,052,969	432,127	4,052,969	4,230,581	177,612
1840-Underground Conduit	433,112	446,063	12,951	446,063	446,063	-	446,063	446,063	-
1845-Underground Conductors and Devices	2,762,564	2,807,068	44,504	2,807,068	2,807,068	-	2,807,068	2,807,068	-
1850-Line Transformers	3,271,547	3,547,905	276,358	3,547,905	4,185,248	637,343	4,185,248	4,366,160	180,912
1855-Services	430,171	516,197	86,026	516,197	516,197	0	516,197	516,197	-
1860-Meters	908,370	825,640	(82,730)	825,640	905,640	80,000	905,640	2,947,459	2,041,819
	<b>17,708,368</b>	<b>19,372,596</b>	<b>1,664,228</b>	<b>19,372,596</b>	<b>20,831,528</b>	<b>1,458,932</b>	<b>20,831,528</b>	<b>23,357,100</b>	<b>2,525,572</b>
<b>General Plant</b>									
1908-Buildings and Fixtures	507,818	507,818	(0)	507,818	507,818	0	507,818	507,818	-
1920-Computer Equipment - Hardware	228,476	260,962	32,486	260,962	260,963	1	260,963	260,963	-
1925-Computer Software	88,902	168,399	79,497	168,399	183,398	14,999	183,398	298,398	115,000
1915-Office Furniture and Equipment	9,735	83,191	73,456	83,191	83,191	-	83,191	108,191	25,000
1930-Transportation Equipment	100,406	290,540	190,134	290,540	350,540	60,000	350,540	610,540	260,000
1940-Tools, Shop and Garage Equipment	108,355	129,043	20,688	129,043	139,044	10,001	139,044	164,044	25,000
1945-Measurement and Testing Equipment	2,151	2,151	(0)	2,151	2,151	-	2,151	2,151	-
1960-Miscellaneous Equipment	4,290	4,290	-	4,290	4,290	(0)	4,290	4,290	-
1980-System Supervisory Equipment	28,619	28,619	(0)	28,619	28,619	-	28,619	28,619	-
1995-Contributions and Grants - Credit	(573,975)	(968,096)	(394,121)	(968,096)	(968,096)	-	(968,096)	(968,096)	-
	<b>504,778</b>	<b>506,917</b>	<b>2,139</b>	<b>506,917</b>	<b>591,918</b>	<b>85,001</b>	<b>591,918</b>	<b>1,016,918</b>	<b>425,000</b>
<b>Gross Asset Total</b>	18,506,746	20,361,912	1,855,167	20,361,912	21,905,846	1,543,934	21,905,846	24,856,418	2,950,572

## 2.8 Ref: Exhibit(s) Exhibit2/Tab2/Schedule3/p.1

The text at the top of the referenced page indicates that “Comments for variances that exceed the materiality thresholds as prescribed... are set out below in the Materiality Analysis on Gross Assets Table”. However there is no explanation for the variances in the referenced items e.g. there is no explanation for the variance on buildings and fixtures (\$379,088) in Exhibit 2 Tab 3 schedule 2 page 1, only the statement that a building was constructed. Therefore, for each project in the 2006 year where there is a material variance, provide an explanation for why the projects have exceeded the amount approved by the Board.

### LUI’s Response:

**Materiality analyses were provided for all 2006 capital projects that exceeded the materiality threshold at Exhibit 2, Tab 3, Schedule 2 in our 2006 EDR application. These analysis included information on: need; scope; capital costs; start date; and in-service date. For example, for buildings and fixtures (\$379,088), the information was provided for the new garage facility.**

#### MATERIALITY ANALYSIS ON GROSS ASSETS

Asset Account	Board Approved 2006 \$	Actual 2006 \$	Variance from 2006 Board Approved \$	Actual 2006 \$	Bridge 2007 \$	Variance from 2006 Actual \$	Bridge 2007 \$	Test 2008 \$	Variance from 2007 Bridge \$	Comments
1808-Buildings and Fixtures	385,981	765,069	379,088							1. New Garage Facility
1820-Dist Station Equip - Normally Primary < 50 kV	2,517,601	2,730,090	212,489							2. MSP Wholesale Metering
1835-Overhead Conductors and Devices	3,253,759	3,620,842	367,083	3,620,842	4,052,969	432,127	4,052,969	4,230,581	177,612	3. Capital Project
1830-Poles, Towers & Fixtures	3,658,034	3,883,075	225,041	3,883,075	4,142,537	259,462				4. Capital Projects
1850-Line Transformers	3,271,547	3,547,905	276,358	3,547,905	4,185,248	637,343	4,185,248	4,366,160	180,912	5. Capital Projects
1860-Meters							905,640	2,947,459	2,041,819	6. Smart Meters
1930-Transportation Equipment	100,406	290,540	190,134				350,540	610,540	260,000	7. New Digger Truck
1995-Contributions and Grants - Credit	-573,975	-968,096	-394,121							8. New Development

**Below are explanations why spending exceeds the materiality threshold of 1% of Fixed assets:**

- 1. Buildings and Fixtures**  
The new garage construction began in 2005 and was completed in 2006. The garage business case involving safety, efficiency and cost savings was presented to the Board in the 2006 EDR.
- 2. Distribution Station Equipment**  
LUI was required to replace existing wholesale metering as required by the IESO in order to maintain the supply of electricity to our utility. This project spans two years (2005 and 2006).
- 3. Overhead Conductors and Devices**  
LUI reconstructed various pole lines in our system relating to voltage conversion and needed system replacement due to their condition. Included in this account are costs related to pole line reconstruction due to road reconstruction and new commercial services.
- 4. Poles, Towers and Fixtures**  
LUI reconstructed various pole lines in our system relating to voltage conversion and needed system replacement due to their condition. Included in this account are costs related to pole line reconstruction due to road reconstruction and new commercial services.
- 5. Line Transformers**  
LUI reconstructed various pole lines in our system relating to voltage conversion and needed system replacement due to their condition. Included in this account are costs related to pole line reconstruction due to road reconstruction and new commercial services.  
LUI replaced damaged transformers due to storms.
- 6. Smart Meters**  
LUI included in its 2008 budget expenditures for our mandated smart meter program.
- 7. Transportation**  
LUI purchased a new bucket truck for the Line department in 2006 and will be replacing our radial boom derrick in 2008.
- 8. Contributions – New Development**  
LUI collected from developers contributions for new commercial services.

**2.9 Ref: Exhibit(s) Exhibit 2/Tab2/Schedule5**

Please provide

- a) A table indicating the depreciation period for each of the asset accounts, and
- b) A table showing the calculation of the depreciation for each of the accounts in each of the years 2006, 2007 and 2008.

**LUI's Response:**

**Please refer to the table below for both questions a and b.**

## 2 Rate Base - 2.9

File: OEB 2 - Rate Base - Exhibit 2 - Rate Base

	Deprec.	Addition			Deprec.	Addition			Deprec.	Addition	
Additions	Rate	Deprec Amt	Period	Additions	Rate	Deprec Amt	Period	Additions	Rate	Deprec Amt	Period
2006	2006	2006	# Years	2007	2007	2007	# Years	2008	2008	2008	# Years
1610-Tangible Plant	0	0.0%	0	0	0	0.0%	0	0	0.0%	0	0
1805-Land	164,819	0.0%	0	0	0.0%	0	0	0	0.0%	0	0
1806-Land Rights	0	0.0%	0	0	11,363	4.0%	455	25	0	4.0%	0
1808-Buildings and Fixtures - New Garage Facility	713,607	4.0%	28,544	25	50,000	2.0%	1,000	50	10,000	2.0%	200
1808-Buildings and Fixtures - New Furnace Unit - O	5,971	10.0%	597	10	0	2.0%	0	50	0	2.0%	0
1820-Dist Station Equip - Normally Primary < 50 kV	191,088	3.3%	6,369	30	0	3.3%	0	30	0	3.3%	0
1830-Poles, Towers and Fixtures	95,546	4.0%	3,822	25	259,462	4.0%	10,378	25	115,229	4.0%	4,609
1835-Overhead Conductors and Devices	55,962	4.0%	2,238	25	432,127	4.0%	17,285	25	177,612	4.0%	7,104
1840-Underground Conduit	12,820	4.0%	513	25	0	4.0%	0	25	0	4.0%	0
1845-Underground Conductors and Devices	34,580	4.0%	1,383	25	0	4.0%	0	25	0	4.0%	0
1850-Line Transformers	76,435	4.0%	3,057	25	637,343	4.0%	25,494	25	180,912	4.0%	7,236
1855-Services	37,182	4.0%	1,487	25	0	4.0%	0	25	0	4.0%	0
1860-Meters	-3,832	4.0%	(160)	25	80,000	5.7%	4,571	17.5	2,041,819	5.7%	116,675
1905-Land	0	0.0%	0	0	0	0.0%	0	0	0	0.0%	0
1906-Land Rights	0	4.0%	0	25	0	4.0%	0	25	0	4.0%	0
1908-Buildings and Fixtures	0	2.0%	0	50	0	2.0%	0	50	0	2.0%	0
1915-Office Furniture and Equipment	45,742	20.0%	9,148	5	0	10.0%	0	10	25,000	10.0%	2,500
1920-Computer Equipment - Hardware	9,990	20.0%	1,998	5	0	20.0%	0	5	0	20.0%	0
1925-Computer Software	1,987	20.0%	1,987	5	15,000	20.0%	3,000	5	115,000	20.0%	23,000
1930-Transportation Equipment	190,134	20.0%	38,027	5	60,000	12.5%	7,500	8	260,000	12.5%	32,500
1935-Stores Equipment	0	10.0%	0	10	0	10.0%	0	10	0	10.0%	0
1940-Tools, Shop and Garage Equipment	4,300	10.0%	430	10	10,000	10.0%	1,000	10	25,000	10.0%	2,500
1945-Measurement and Testing Equipment	0	10.0%	0	10	0	10.0%	0	10	0	10.0%	0
1960-Miscellaneous Equipment	0	10.0%	0	10	0	10.0%	0	10	0	10.0%	0
1995-Contributions and Grants - Credit	-216,407	0.0%	-8,656	0	0	0.0%	0	0	0	0.0%	0

1806 - Land Rights - Historically was never depreciated. Started the depreciation in 2007.

1808 - Buildings & Fixtures (Garage Facility) - Deprec started in 2006 at 25 years, changed the calculation going forward

1808 - Buildings & Fixtures (New Furnace) - Started deprec in 2006 for 10 years, changed the calculation in the rate model to 50 years.

1860 - Meters - Smart Meters life span less than traditional meters of 25 years to 17.5 years

1915 - Office Equipment & Furniture - New mailing equipment and copier/scanner was treated the same as Computer hardware historically,changed the calculation

1930 - Transportation Equipment

**2.10 Ref: Exhibit(s) Exhibit 2/Tab3/Schedule1/p1.**

The text states that, "Lakefront Utilities applies a systematic planning process for all of its capital additions. This process ensures only those capital investments that are required to maintain a safe and reliable operation of Lakefront Utilities's distribution system are made". Please provide:

a) A description of the planning process,

**LUI's Response:**

**LUI conducted a pole by pole condition and inventory assessment project to determine what areas needed to be addressed to ensure public safety and system reliability. As a result of this, LUI addressed areas of immediate concern by selective system replacement.**

**In October 2004, LUI commissioned EnerSpectrum Group to conduct a system study. Though the purpose of the study was to assess the effect on distribution losses of a feeder voltage conversion for its F9 feeder from MS 2 in Cobourg, the study was also formed the confirmation for system sustainment, refurbishing and conversion from 4.16 kV to 27.6 kV spending.**

**A plan to further the voltage conversion was developed which took into consideration the system condition. The pole lines were then designed and costs for construction including installation were completed. The multi-year plan was then completed and is in Appendix V.**

b) Documentation according to which the planning process is conducted,

**LUI's Response:**

**Attached in Appendix V are screen shots of our condition and inventory program and sample sheets from the summary for your information.**

c) The specific completed documentation for the years 2006, 2007 and 2008,

**LUI's Response:**

**We have attached as Appendix V, a copy of our planned voltage conversion projects for the next few years.**

d) Methodology for determination of condition of assets including documentation of procedures and practices, and

**LUI's Response:**

**LUI conducted a pole by pole condition and inventory assessment project to determine what areas needed to be addressed to ensure public safety**

and system reliability. As a result of this, LUI addressed areas of immediate concern by selective system replacement.

In October 2004, LUI commissioned EnerSpectrum Group to conduct a system study. Though the purpose of the study was to assess the effect on distribution losses of a feeder voltage conversion for its F9 feeder from MS 2 in Cobourg, the study was also formed the confirmation for system sustainment, refurbishing and conversion from 4.16 kV to 27.6 kV spending.

e) For those capital projects which are planned or which have been undertaken for reasons of load growth, please indicate the growth in the number of customers and the load that led to the project being undertaken or planned.

**LUI's Response:**

**Our projects were involved with system condition, municipal road construction coordination and voltage conversion.**

### 3 OPERATING EXPENSES

#### Purchases of Services or Products

##### 3.1 Ref: Exhibit(s) Exhibit 4/ Tab 2/ Schedule 6/ Pages 1 and 2

a) For each specific methodology used in determining the price of the service/product, please provide a detailed description of the methodology.

b) Does Lakefront Utilities have an approved list of vendors for the contract process?

#### LUI's Response:

Below is a table list of service/product and vendors LUI has with the methodology of determining use.

#### Lakefront Utility Service Inc. Purchase of Services

	2006 Actual	2007 Bridge	2008 Test	Methodology
<b><u>ERIE THAMES SERVICES CO</u></b> Software Support/Utilismart Contract	\$ 112,200	\$ 125,400	\$ 129,160	Tender
<b><u>BDO DUNWOODY</u></b> Audit Fees/Valuation Cost Approach	\$ 103,300	\$ 70,000	\$ 75,000	Appointed by Municipality
<b><u>RDI CONSULTING INC.</u></b> Financial Consulting Cost Approach	\$ 54,063	\$ 55,000	\$ 57,000	Request for Proposal
<b><u>The Ritz/Nick Rizzo, Alvin Ramer</u></b> Meter Reading Contract	\$ 31,070	\$ 35,500	\$ 36,800	Tender continued from Schum. Periodic Reevieiw
<b><u>JAMES W. GORDON INS.</u></b> Property Insurance Cost Approach	\$ 19,350	\$ 20,000	\$ 21,000	Continued service Town
<b><u>ALTERNATIVE RISK SERVICES</u></b> Excess Liablity Insurance Cost Approach	\$ 9,348	\$ 7,534	\$ 8,000	Mearie Rider on Insurance Policy
<b><u>NEOPOST DIGITAL POSTAGE ON CALL</u></b> Mailing maintenance costs Cost Approach	\$ 18,000	\$ 18,000	\$ 18,500	Tender

**Lakefront Utility Service Inc.  
Purchase of Services**

	2006 Actual	2007 Bridge	2008 Test	Methodology
<b><u>HYDRO ONE Truck Centre</u></b>	\$ 15,971	\$ 16,000	\$ 16,000	Only available
Maintenance/Hydraulic of Aerial Diggers Trucks				local maintainer
Cost Approach				
<b><u>XTREME MOTORSPORTS</u></b>	\$ 13,830	\$ 14,000	\$ 14,500	Tender
Truck Repairs/Maintenance				
Cost Approach				
<b><u>ELECTRICITY DIST. ASSOC</u></b>	\$ 11,900	\$ 12,000	\$ 12,300	Dues/Memberships
Membership Fees				
Cost Approach				
<b><u>ELECTRICAL SAFETY AUTHORITY</u></b>	\$ 6,138	\$ 4,862	\$ 6,500	Membership
Regulatory Oversight				
Cost Approach				
<b><u>HYDRO ONE NETWORKS INC.</u></b>	\$ 19,900	\$ 10,000	\$ 10,000	Provincial Program
Cost Allocation/Load Analysis/Wholesale Meter Exit				
Cost Approach				
<b><u>OGILVY RENAULT</u></b>	\$ 19,549	\$ 5,000	\$ 25,000	Lawyers
Transition Cost/2008 Rate Application				
Cost Approach				
<b><u>CHEC (Cornerstone Hydro Electric Commission)</u></b>	\$ 8,800	\$ 9,050	\$ 9,200	Association membership
Membership Fees				
Cost Approach				
<b><u>Elenchus Research Associates (ERA)</u></b>	\$ -	\$ 3,000	\$ 12,600	RFP through CHEC
2008 Rate Application				
Cost Approach				
<b><u>ONTARIO LINE CLEARING &amp;</u></b>	\$ 12,320	\$ 13,500	\$ 13,500	Tender
Tree-trimming				
Cost Approach				
<b><u>OSHAWA PUC NETWORKS</u></b>	\$ 19,110	\$ 6,520	\$ 14,520	Tender
Metering MSP SETUP & Verification				
Cost Approach				
<b><u>UTIL-ASSIST</u></b>	\$ 6,977	\$ 15,000	\$ 15,000	RFP through CHEC
Smart-Meter Consulting Services/OUSM Working Group				
Cost Approach				
<b><u>UTILITY FINANCIAL CONCEPTS INC.</u></b>		\$ 5,000	\$ 5,000	RFP through CHEC
Financial Consulting/Rate Application Consulting				
Cost Approach				
<b><u>D.O.S.S.</u></b>	\$ 6,701	\$ 7,000	\$ 7,250	Supplies/consumables
Office Supplies				
Cost Approach				
<b>Annual Total</b>	<b>488,528</b>	<b>452,366</b>	<b>506,830</b>	

## Shared Services

### 3.2 Ref: Exhibit(s) Exhibit 4/ Tab 2/ Schedule 5/ Page 1

To comply with section 2.5 (Exhibit 1 Operating & Maintenance and Other Costs) of the Filing Requirements for Transmission and Distribution Applications, please file the following information for each shared service:

- a) Type of service
- b) Total annual expense by service, and
- c) Rationale and cost allocators used for shared costs for each type of service.

#### LUI's Response:

Please refer to the table below regarding shared services through Lakefront Utility Services Inc. ("LUSI") with Town of Cobourg's Water Department ("Water") and Lakefront Utilities Inc. ("LUI").

OEB 3.2	Shared Services		
a)	Type of service	<b>LUSI (Service Provider)</b> LUSI acts as an agent to provide: Billing & Collecting General Administration	<b>WATER</b> Water Department pays rent to LUI for shared space
b)	Annual expense by service	LUSI acts as a banking and cost distribution centre for the companies. All revenues and costs are passed through LUSI to the companies at cost. 2006 LUI 's Share: Billing & Collection \$420,420 General Administration \$870,920	Water Department pays LUI \$48,000 rent for lease of garage and office facilities.
c)	Rational and cost allocators	All costs and revenues are allocated based on proportioned usage by each company.	

## **Corporate Cost Allocation**

### **3.3 Ref: Exhibit(s) Exhibit 4 / Tab 2 / Schedule 5 / Page 2**

As defined in the November 14, 2006 Filing Requirements for Transmission and Distribution Applications, Corporate Cost Allocation is an allocation of costs for corporate and miscellaneous shared services from the parent to the utility. This is not to be confused with the allocation of the revenue requirement to rate classes for the purposes of rate design.

Pursuant to section 2.5 (Exhibit 4 Part D) of the Filing Requirements for Transmission and Distribution Applications, Applicants are to file detailed description of the assumptions underlying the corporate cost allocation as well as provide documentation of the overall methodology and policy.

Please provide the requisite documentation described above.

#### **LUI's Response:**

**There are no shared services between the parent company to the utility, so no costs are allocated to the utility by the parent.**

## **Employee Compensation**

### **3.4 Ref: Exhibit(s) Exhibit 4 / Tab 2 / Schedule 7**

On Page 1, Lakefront Utilities provides a comparison of total salary and wages for 2006 to 2008.

a) Please explain the 112% differential between the 2006 Board approved amount of \$45,079 in average executive compensation and the 2006 actual amount of \$95,691.

#### **LUI's Response:**

**The number of executive employees, in the Board Approved column, should be 1.5 and not 3. Though there are three individuals, the full time equivalent (FTE) of the three executives, is half, or 1.5. That would make the average compensation \$90,157 compared to the actual amount of \$95,961. As well, the \$90,157 is for the year 2004, whereas the \$95,961 is for 2006.**

b) Please explain the 19% differential between the 2006 Board approved amount of \$56,963 in average management compensation and the 2006 actual amount of \$68,062.

#### **LUI's Response:**

**Management compensation increase is due to the hiring of a full time compliance/finance manager. The total number of employees did not change between the years as we had a contract finance person on staff. As well, \$56,963 is for the year 2004, whereas \$68,062 for 2006.**

c) Please explain the 39% differential between the 2006 Board approved amount of \$37,630 in average unionized compensation and the 2006 actual amount of \$52,138.

#### **LUI's Response:**

**The 2006 unionized figures include overtime charges while the Board Approved figures do not include \$29,038 of overtime. The 2006 Board Approved figures should also show only 9 full time equivalent employees.**

**Please refer to the table below as supplement to the above answers for Question 3.4**

**EMPLOYEE DESCRIPTION**

**Number of employees (Full-time equivalents (FTE's)):**

	<u>2006 Board Approved</u>	<u>2006 Actual</u>	<u>2007 Bridge</u>	<u>2008 Test</u>
Executive	1.5	1.5	1.5	1.5
Management	4	4	4	5
Non-Unionized	0	1	1	1
Unionized	9	9	10	10
<b>TOTAL</b>	<b>14.5</b>	<b>15.5</b>	<b>16.5</b>	<b>17.5</b>

**Compensation (Total Salary and Wages (\$)):**

	<u>2006 Board Approved</u>	<u>Average</u>	<u>2006 Actual</u>	<u>Average</u>	<u>2007 Bridge</u>	<u>Average</u>	<u>2008 Test</u>	<u>Average</u>
Executive	135,236	90,157	143,536	95,691	148,000	98,667	153,000	102,000
Management	227,853	56,963	272,246	68,062	280,000	70,000	322,400	64,480
Non-Unionized (Summer Students)	-	-	20,215	20,215	20,900	20,900	22,000	22,000
Unionized	376,296	41,811	469,239	52,138	550,000	55,000	566,000	56,600
<b>TOTAL</b>	<b>739,385</b>	<b>50,992</b>	<b>905,236</b>	<b>58,402</b>	<b>998,900</b>	<b>60,539</b>	<b>1,063,400</b>	<b>60,766</b>

**Compensation (Total Benefits (\$)):**

	<u>2006 Board Approved</u>	<u>Average</u>	<u>2006 Actual</u>	<u>Average</u>	<u>2007 Bridge</u>	<u>Average</u>	<u>2008 Test</u>	<u>Average</u>
Executive	26,500	17,667	28,143	18,762	29,269	19,512	30,440	20,293
Management	57,000	14,250	62,823	15,706	65,336	16,334	84,937	16,987
Non-Unionized (Summer Students)	-	-	2,159	2,159	2,245	2,245	2,335	2,335
Unionized	112,394	12,488	123,530	13,726	142,746	14,275	148,456	14,846
<b>Total</b>	<b>195,894</b>	<b>13,510</b>	<b>216,655</b>	<b>13,978</b>	<b>239,596</b>	<b>14,521</b>	<b>266,168</b>	<b>15,210</b>

**Compensation (Total Incentives (\$)):**

	<u>2006 Board Approved</u>	<u>Average</u>	<u>2006 Actual</u>	<u>Average</u>	<u>2007 Bridge</u>	<u>Average</u>	<u>2008 Test</u>	<u>Average</u>
Executive	161,736	107,824	171,679	114,453	177,269	118,179	183,440	122,293
Management	284,853	189,902	335,069	223,379	345,336	230,224	407,337	271,558
Non-Unionized	-	-	22,374	14,916	23,145	15,430	24,335	16,223
Unionized	517,728	345,152	592,769	395,179	692,746	461,831	714,456	476,304
<b>Total</b>	<b>964,317</b>	<b>66,505</b>	<b>1,121,891</b>	<b>72,380</b>	<b>1,238,496</b>	<b>75,060</b>	<b>1,329,568</b>	<b>75,975</b>

**Total of Costs charged to O&M (\$):**

	<u>2006 Board Approved</u>	<u>Average</u>	<u>2006 Actual</u>	<u>Average</u>	<u>2007 Bridge</u>	<u>Average</u>	<u>2008 Test</u>	<u>Average</u>
<b>TOTAL</b>	-	-	826,449	53,319	911,996	55,272	975,084	55,719

### **3.5 Ref: Exhibit(s) Exhibit 4 / Tab 2 / Schedule 7**

On Page 1, Lakefront Utilities provides a comparison of total salary and wages for 2006 to 2008.

a) Please provide the rationale and justification for the two-year increase of 18% in management salary and wages, from \$272,246 in 2006 to \$322,400 in 2008.

#### **LUI's Response:**

**The increase is due to the projected addition of a finance assistant in the year 2008.**

**LUI operates its Finance Department with the same staff that it had prior to the restructuring of the electrical market in Ontario. We have endured the workload demanded by the new regulatory environment, including but not limited to, IESO stats and reporting, retailer communications, new USofA development of statistics collection, income tax filing, the many audits relating to transition costs, IESO, provincial rebates, GST, financial, etc. LUI proposes that in order to continue to meet the workload requirements being demanded by the market, that more clerical staff time is needed to ensure the timely and proper recording and filing of information required by all parties. Therefore, we request that an additional Financial Clerk be approved in our 2008 rate application.**

b) Please provide the rationale and justification for the two-year increase of 21% in unionized salary and wages, from \$469,239 in 2006 to \$566,000 in 2008.

#### **LUI's Response:**

**The increase is due to the addition of a lineman in 2007 and a general wage increase of 3%. The lineman was approved in the 2006 EDR.**

**3.6 Ref: Exhibit(s) Exhibit 4 / Tab 2 / Schedule 7**

On Page 1, Lakefront Utilities indicates that it hired a summer student at a total cost of \$22,374 in 2006 and \$23,145 in 2007, including benefits. Assuming a three month summer period, these figures prorate to an annual cost of approximately \$100,000. Please provide the relevant terms of employment for this summer student including the period of employment and the hourly rate at which this summer student was compensated and the justification for that rate.

**LUI's Response:**

**In fact, LUI had four summer students which in total were shown as the equivalent of one full time employee (FTE). The four summer student's total compensation is the \$22,374 and \$23,145 for the years 2006 and 2007. The summer students are usually here for up to four months and are paid from \$10.50 to \$11.50 per hour.**

**3.7 Ref: Exhibit(s) Exhibit 4 / Tab 2 / Schedule 7**

Page 1 provides a comparison of total benefits from 2006 to 2008. Please explain the 31% differential between the 2006 Board approved amount of \$10,512 in average unionized benefits and the 2006 actual amount of \$13,726.

**LUI's Response:**

**The differences noted above related to the Board Approved employee counts: Unionized employees for 2006 Board Approved should be 9 instead of 10 and this will reallocate the benefit costs between the groups. Also Executives should be 1.5 instead of 3. The reallocation of Executive will become \$26,500; Management \$57,000 and Unionized \$112,394. Please refer to below updated Schedule 4, Tab 2, Schedule 7**

**EMPLOYEE DESCRIPTION**

**Number of employees (Full-time equivalents (FTE's):**

	<u>2006 Board Approved</u>	<u>2006 Actual</u>	<u>2007 Bridge</u>	<u>2008 Test</u>
Executive	1.5	1.5	1.5	1.5
Management	4	4	4	5
Non-Unionized	0	1	1	1
Unionized	9	9	10	10
<b>TOTAL</b>	<b>14.5</b>	<b>15.5</b>	<b>16.5</b>	<b>17.5</b>

**Compensation (Total Salary and Wages (\$)):**

	<u>2006 Board Approved</u>	<u>Average</u>	<u>2006 Actual</u>	<u>Average</u>	<u>2007 Bridge</u>	<u>Average</u>	<u>2008 Test</u>	<u>Average</u>
Executive	135,236	90,157	143,536	95,691	148,000	98,667	153,000	102,000
Management	227,853	56,963	272,246	68,062	280,000	70,000	322,400	64,480
Non-Unionized (Summer Students)	-	-	20,215	20,215	20,900	20,900	22,000	22,000
Unionized	376,296	41,811	469,239	52,138	550,000	55,000	566,000	56,600
<b>TOTAL</b>	<b>739,385</b>	<b>50,992</b>	<b>905,236</b>	<b>58,402</b>	<b>998,900</b>	<b>60,539</b>	<b>1,063,400</b>	<b>60,766</b>

**Compensation (Total Benefits (\$)):**

	<u>2006 Board Approved</u>	<u>Average</u>	<u>2006 Actual</u>	<u>Average</u>	<u>2007 Bridge</u>	<u>Average</u>	<u>2008 Test</u>	<u>Average</u>
Executive	26,500	17,667	28,143	18,762	29,269	19,512	30,440	20,293
Management	57,000	14,250	62,823	15,706	65,336	16,334	84,937	16,987
Non-Unionized (Summer Students)	-	-	2,159	2,159	2,245	2,245	2,335	2,335
Unionized	112,394	12,488	123,530	13,726	142,746	14,275	148,456	14,846
<b>Total</b>	<b>195,894</b>	<b>13,510</b>	<b>216,655</b>	<b>13,978</b>	<b>239,596</b>	<b>14,521</b>	<b>266,168</b>	<b>15,210</b>

**Compensation (Total Incentives (\$)):**

	<u>2006 Board Approved</u>	<u>Average</u>	<u>2006 Actual</u>	<u>Average</u>	<u>2007 Bridge</u>	<u>Average</u>	<u>2008 Test</u>	<u>Average</u>
Executive	161,736	107,824	171,679	114,453	177,269	118,179	183,440	122,293
Management	284,853	189,902	335,069	223,379	345,336	230,224	407,337	271,558
Non-Unionized	-	-	22,374	14,916	23,145	15,430	24,335	16,223
Unionized	517,728	345,152	592,769	395,179	692,746	461,831	714,456	476,304
<b>Total</b>	<b>964,317</b>	<b>66,505</b>	<b>1,121,891</b>	<b>72,380</b>	<b>1,238,496</b>	<b>75,060</b>	<b>1,329,568</b>	<b>75,975</b>

**Total of Costs charged to O&M (\$):**

	<u>2006 Board Approved</u>	<u>Average</u>	<u>2006 Actual</u>	<u>Average</u>	<u>2007 Bridge</u>	<u>Average</u>	<u>2008 Test</u>	<u>Average</u>
<b>TOTAL</b>	<b>-</b>	<b>-</b>	<b>826,449</b>	<b>53,319</b>	<b>911,996</b>	<b>55,272</b>	<b>975,084</b>	<b>55,719</b>

**3.8 Ref: Exhibit(s) Exhibit 4 / Tab 2 / Schedule 7**

Page 1 provides a comparison of total incentives for 2006 to 2008.

a) Please confirm that this table represents total compensation amounts, including salary, wages and benefits, paid to employees and not total incentive amounts, and

**LUI's Response:**

**This table represents total compensation paid to employees, except as noted in 3.4c) above the overtime pay has not been included in the 2006 Board Approved.**

b) If so, please indicate whether or not Lakefront Utilities has an employee incentive program and provide a breakdown of amounts paid by employee type for 2006, Board Approved and Actual, 2007 and 2008.

**LUI's Response:**

**Lakefront Utilities does not have an employee incentive plan.**

**3.9 Ref: Exhibit(s) Exhibit 4 / Tab 2 / Schedule 7**

On Page 1, Lakefront Utilities provides a breakdown of employee compensation from 2006 to 2008.

a) Please confirm whether or not Lakefront Utilities has overtime compensation, and

**LUI's Response:**

**Confirmed. Lakefront Utilities has overtime compensation for unionized employees.**

b) If so, please provide a breakdown of overtime amounts for 2006, including Historical Board Approved and Historical Actual, 2007 and 2008.

**LUI's Response:**

**The overtime for the 2006 Board Approved unionized employees, which was not included in the total compensation as noted in 3.4 (c) above, is \$29,038.**

**2006 overtime unionized employees \$35,085**

**2007 overtime unionized employees \$40,000**

**2008 overtime unionized employees \$41,000**

### **3.10 Ref: Exhibit(s) Exhibit 4 / Tab 2 / Schedule 7**

Page 1 provides a breakdown of "Total Costs charged to O&M" from 2006 to 2008. Lakefront Utilities' 2006 actual, 2007 bridge and 2008 test year data indicate that on average, the utility only charged 74%, 74%, and 73% of its total employee compensation costs to O&M, respectively. Please explain where the remaining amount of total compensation costs was charged in 2006, 2007 and 2008.

#### **LUI's Response:**

**We allocated @75% of employee compensation to O&M to allow for the balance to be charged to capital additions and miscellaneous accounts receivable labour billed out to outside parties such as street lighting and other chargeable work.**

## **OM&A Expenses**

### **3.11 Ref: Exhibit(s) General Question**

Please confirm that Lakefront Utilities has not made changes to the company's accounting policies in respect to capitalization of operation expenses and/or has not made any significant changes to accounting estimates used in allocation of costs between operations and capital expenses post fiscal year end 2004. If any accounting policy changes or any significant changes in accounting estimates have been made post 2004 fiscal year end, please provide all supporting documentation and a discussion highlighting the impact of the changes.

#### **LUI's Response:**

**LUI has not made any changes to the company's accounting policies in respect to capitalization of operation expenses and has not made any significant changes to accounting estimates used in allocation of costs between operations and capital expenses.**

### 3.12 Ref: Exhibit(s) Exhibit 4 / Tab 1 / Schedule 2

Board Staff Table 1 below was prepared to review Lakefront Utilities' OM&A expenses. Note rounding differences may occur, but are immaterial to the questions below. This table removes uncontrollable expenses from the 2006 Board approved controllable expenses and from the 2007 and 2008 forecasted expenses. This is to allow for a consistent view of Lakefront Utilities' controllable expenses over the reporting period.

**Board Staff Table 1**

OM&A Expenses	2006 Board			
	Approved	2006 Actual	2007 Bridge	2008 Test
Operations	523,452	481,734	568,635	620,871
Maintenance	104,971	88,033	114,011	324,385
Billing & Collecting	223,962	420,421	441,986	453,844
Community Relations *(adjusted for CDM below)	8,918	17,130	19,767	19,767
Administrative and General Expenses **(adjusted for Low voltage)	698,073	801,751	786,480	988,498
<b>Controllable OM&amp;A</b>	<b>1,559,376</b>	<b>1,809,069</b>	<b>1,930,879</b>	<b>2,407,365</b>
CDM - Energy Conservation *(from Community Relations above)	0	0	119,169	80,408
Low Voltage **(from Admin & General Above)	230,681	0	0	0
Amortization Expense	737,576	824,816	780,981	888,341
Taxes Other Than Income	21,919	52,040	53,601	55,209
<b>Total Distribution OM&amp;A Expenses</b>	<b>2,549,552</b>	<b>2,685,925</b>	<b>2,884,630</b>	<b>3,431,323</b>
LCT, OCT & Income Taxes	323,377	306,478	568,666	407,159
<b>TOTAL OPERATING COSTS</b>	<b>2,872,929</b>	<b>2,992,403</b>	<b>3,453,296</b>	<b>3,838,482</b>

Board Staff Table 2 below was created to review variances in Lakefront Utilities' controllable OM&A expenses from the evidence provided in the application's Exhibit 4/ Tab 1/Schedule 2. (Note rounding differences may occur, but are immaterial to the following questions.) Board staff notes that Lakefront Utilities is forecasting increases to 2008 Controllable OM&A Expenses of \$598,296 or 33.1% from Actual 2006.

**Board Staff Table 2**

OM&A Expenses	2006 Board	Variance		Variance		Variance		Variance
	Approved	2006/2006	2006 Actual	2007/2006	2007 Bridge	2008/2007	2008 Test	2008/2006
Operations	523,452	-41,718 -2.7%	481,734	86,901 4.8%	568,635	52,236 2.7%	620,871	139,137 7.7%
Maintenance	104,971	-16,938 -1.1%	88,033	25,978 1.4%	114,011	210,374 10.9%	324,385	236,352 13.1%
Billing & Collecting	223,962	196,459 12.6%	420,421	21,565 1.2%	441,986	11,858 60.0%	453,844	33,423 1.8%
Community Relations *(adjusted for CDM t	8,918	8,212 50.0%	17,130	2,637 10.0%	19,767	0 0.0%	19,767	2,637 10.0%
Administrative and General Expenses **(adjusted for Low voltage)	698,073	103,678 6.6%	801,751	-15,271 -80.0%	786,480	202,018 10.5%	988,498	186,747 10.3%
<b>Controllable OM&amp;A</b>	<b>1,559,376</b>	<b>249,693</b> 16.0%	<b>1,809,069</b>	<b>121,810</b> 6.7%	<b>1,930,879</b>	<b>476,486</b> 24.7%	<b>2,407,365</b>	<b>598,296</b> 33.1%

Board Staff Table 3 below was created to review the drivers of Lakefront Utilities' controllable OM&A actual and forecasted expenses from the evidence provided in OM&A Costs Table in Exhibit 4/ Tab 2/Schedule 1. (Rounding differences may occur, but are immaterial to the following questions.)

**Board Staff Table 3 - Cost Drivers by Year**

	2006	2007	2008
<b>Opening balance</b>	<b><u>1,559,376</u></b>	<b><u>1,809,069</u></b>	<b><u>1,930,879</u></b>
Increase in wages and benefits			45,106
Smart meters			207,850
New employee - Finance			69,292
Regulatory expense			100,000
Unexplained Difference	<u>249,693</u>	<u>121810</u>	<u>54,238</u>
<b>Closing balance</b>	<b><u>1,809,069</u></b>	<b><u>1,930,879</u></b>	<b><u>2,407,365</u></b>

a) Please confirm that Lakefront Utilities agrees with the three tables prepared by Board Staff presented above. If Lakefront Utilities does not agree with any table please state why not.

**LUI's Response:**

**Lakefront Utilities agrees with the three tables prepared by Board Staff.**

b) Please complete a Cost Drivers by Year analysis table similar to the Board Staff Table 3 above, identifying the cost drivers that make up the changes to Lakefront Utilities annual controllable expenses, including a breakdown of the line item "Unexplained Difference" in the above table. The objective is to identify all significant expense cost drivers that reduces the "Unexplained Difference" to an amount less than Lakefront Utilities calculated OM&A materiality limit as found on Exhibit 4/Tab 2/ Schedule 3. Please separate changes for the line item "Increase in wages and benefits" between current and new employees. You may report these values on a consolidated company basis as opposed to by department or USoA account. Please ensure that each identified driver is followed with a more detailed discussion including economic or other assumptions so as to provide information sufficient for a complete record to be established for the Board's consideration. For example, the line item "New employee Finance" would benefit from some discussion as to what precipitated this cost as would "Regulatory Expenses" and the reasons for the build up in those costs.

**LUI's Response:**

**Please refer to the below tables for 2006, 2007, 2008 and Summary**

**Operation and Maintenance**

**Cost Drivers 2006**

**Distribution Expense- Operation**

E	Decrease equip. operation acct.	1	-85,160
A	Decrease o/h lines wages	2	-33,287
E	Increase o/h lines supplies	1	97,596
A	Decrease u/g lines wages	2	-29,481
A	Increase in operation wages		5,175
E	Increase in supplies & expenses		3,439
	Total decrease		<u><u>-41,718</u></u>

- 1 Reallocation between accts, reduced station equip & increased O/H lines
- 2 Decrease due to the fact that we didn't have a full compliment of staff

**Distribution Expense-Maintenance**

E	Decrease lines right of way		-58,555
A	Increase line transformers wages	8,372	
E	Supplies and service	<u>25,738</u>	34,110
E	Increase in supplies & services		7,507
	Total decrease		<u><u>-16,938</u></u>

**Billing and Collecting**

A	Increase from reallocation of time wages		52,357
D	Increase in bad debt expense	1	45,586
B	Increase in misc.customer expense	2	81,062
A	Increase billing / collecting wages		14,477
E	Increase meter reading, supplies & services		5,000
E	Decrease collection charges		-2,023
	Total increase		<u><u>196,459</u></u>

- 1 Write offs due to customer skips and bad debt write offs
- 2 Increase in billing support costs that some of which were previously tracked as transition costs

**Administration & general**

C	Increase outside services	1	116,103
E	Decrease misc. general expense		-238,621
E	remove low voltage		<u>230,681</u>
E	Increase supplies & expenses		3,727
	Total increase		<u><u>111,890</u></u>

- 1 Increase is due to the addition of computer and consulting services used to track transition costs, plus the expense of a cost allocation study & legal costs for Reg. Assets recovery. The increase could be broken down to one-time costs of \$79,000 and on-going costs of \$37,103

**Increase in total cost drivers for 2006**

249,693

**Summary**

A	Increase in wages /benefits		17,613
B	Increase in computer support		81,062
C	Increase in outside services		116,103
D	Increase in bad debt expense		45,586
E	Decrease in other expenses		-10,671

**Increase in total cost drivers for 2006**

249,693

## Cost Drivers 2007

### Distribution expense- operation

A	Increase wages new lineman	1	56,507
B	Increase operation wages		14,482
D	Increase supplies and expenses		15,912
	Total increase		<u>86,901</u>
	Increase due to the addition of a lineman		

### Distribution expense- maintenance

B	Increase in maintenance wages		3,474
D	Increase supplies and expenses	1	22,504
	Total increase		<u>25,978</u>
	Increase due to add costs of transformer maintenance supplies & services		

### Billing & collecting

B	Increase billing/ collecting wages		9,367
D	Increase meter reading, supplies & services		12,198
	Total increase		<u>21,565</u>

### Administration & general

B	Increase in wages		38,518
C	Decrease in outside services	1	-79,206
D	Increase office supplies and expenses		10,592
D	Increase in maintenance costs		3,673
D	Increase property insurance		5,864
D	Increase general expenses		7,925
	Total decrease		<u>-12,634</u>
	Decrease in outside services for cost allocation & legal expense for Reg Asset		

**Increase in total cost drivers for 2007** 121,810

### Summary

A	Increase in wages new lineman		56,507
B	Increase in wages/benefits		65,841
C	Decrease in outside services		-79,206
D	Increase in other expenses		78,668
	<b>Increase in total cost drivers for 2007</b>		<u><u>121,810</u></u>

<b>Cost drivers 2008</b>	
Increase in wages	45,106
Smart meters	207,850
New employee finance	69,292
Regulatory expenses	100,000
Total increase	<u>422,248</u>
<b>Distribution expense- operation</b>	
Increase in supplies & expenses	7,130
<b>Distribution expense- maintenance</b>	
Increase in supplies & expenses	2,524
<b>Billing &amp; Collecting</b>	
Increase in supplies & expenses	11,858
<b>Administration &amp; general</b>	
Increase in supplies & services	16,076
Total increase supplies, services & expenses	<u>37,588</u>
Increase in outside services	16,650
Due to cost allocation study	
Total increase	<u>54,238</u>
<b>Increase in total cost drivers for 2008</b>	<u><b>476,486</b></u>

## Board Staff Table 3 updated with differences explained

OEB - Ref 3.12 b)

Operation and Maintenance	Cost Drivers By Year		
	2006	2007	2008
<b>Opening balance</b>	<b><u>1,559,376</u></b>	<b><u>1,809,069</u></b>	<b><u>1,930,879</u></b>
Increase in wages/benefits	17,613	65,841	45,106
Increase in computer support	<b>1</b> 81,062		
Increase in outside services	<b>2</b> 116,103		16,650
Decrease in outside services		<b>2</b> -79,206	
Increase in bad debt expense	<b>3</b> 45,586		
New employee lineman		<b>4</b> 56,507	
Smart meters			<b>5</b> 207,850
New employee - Finance			<b>6</b> 69,292
Regulatory expense			<b>7</b> 100,000
Decrease in other expenses	-10,671		
Increase supplies, services & expenses		78,668	
Increase supplies, services & expenses			37,588
Total increase	<u>249,693</u>	<u>121,810</u>	<u>476,486</u>
<b>Closing balance</b>	<b><u>1,809,069</u></b>	<b><u>1,930,879</u></b>	<b><u>2,407,365</u></b>
Materiality	26,859	28,846	34,313

- 1** Computer support costs for new billing system, previously tracked as transition cost. These costs were only considered transition, by the OEB, until they could be recovered in our rates and expensed with other operating costs on our statements.
- 2** Costs for consulting services, computer services that use to be tracked as transition costs, plus cost of cost allocation study and legal costs phase 2 reg. assets one-time costs of 79,000 and ongoing costs of 37,103. Transition costs now expensed in operating statements and recovered in rates. Cost allocation study as required by OEB to reallocate costs to their associated customer classes.
- 3** Customer account write offs is higher due to more customer skips and bankruptcies, the trend continues into 2007 with a larger company bankruptc. Customer deposits are now returned after 1 year, as required by OEB, if customer considered good payer in that period. In the past we would keep deposits for at least 2 years. We are tending to have more customer skips, and are starting to get better customer information on sign up and spend more time on outstanding customer accounts.
- 4** Addition of lineman, as approved in the 2006 EDR.
- 5** Implementation of the smart meter program maintenance component.
- 6** Finance Clerk to help deal with increased work load due to regulatory requirements.
- 7** Costs associated with the preparation of the rate application

c) Lakefront Utilities identifies that the company is planning to expend \$100,000 for Regulatory Expenses.

i Please confirm that the regulatory expense is a one-time cost of \$100,000.

**LUI's Response:**

**The \$100,000 Regulatory Expense represents the cost of preparing this application. It is unlikely that LUI will spend \$100,000 during the non-rebasing years, however LUI will have regulatory expenses during those years that could be significant, depending on the adjustments permitted by the IRM mechanism and LUI's specific circumstances. LUI is not confident that it can wait until the year 2011 to rebase. Therefore, the full \$100,000 should not be treated as a one-time expense. Rather, it would be more appropriate to include \$75,000 in LUI's revenue requirement to recognize a partial amortization of this application's costs as well as future regulatory expenses**

ii If this cost is a one-time cost, please explain why this one-time amount should be recovered by way of Lakefront Utilities' annual revenue requirement in light of the fact that the 2008 revenue requirement, once approved will not be adjusted until 2011.

**LUI's Response:**

**Please refer to LUI's response to (i) above**

iii If the cost is not a one-time cost, please explain why Lakefront Utilities expects to incur the additional level of regulatory expense reported for the 2008 test year on an annual basis going forward.

**LUI's Response:**

**Please refer to LUI's response to (i) above**

iv Has Lakefront Utilities identified any other one time costs that should be addressed in a similar manner as above? If yes please provide similar discussions.

**LUI's Response:**

**No**

d) Please state what cost saving / efficiency initiatives or activities the applicant has implemented after the last 2006 EDR application or plans to be implementing that have not already been discussed in the application. Please provide discussion on any relevant initiatives or plans.

**LUI's Response:**

**LUI has implement cost saving initiatives through contracting out of billing software services with an Application Service Provider – Erie Thames, Wholesale and Retail Settlement services with Utilismart and accounting services with RDI and Utility Financial Concepts (refer to table in response to Question 3.1 b for other services).**

**LUI also seek synergies and efficiencies through partnership for various programs with Cornerstone Hydro Electric Concepts (CHEC), such as coordinated CDM implementation, Smart Metering, accounting, regulatory initiatives such as 2008 EDR, etc. LUI also contacts out capital works to keep our outside staff at a maintenance level.**

**In an environment of increased regulatory burden and other initiatives such as CDM, LUI has absorbed this additional workload into existing resources, demonstrating operational efficiency. In addition, LUI has the added workload of new customer growth without additional staff.**

### 3.13 Ref: Exhibit(s) General Question

Please provide the breakdown for actual and forecast, where applicable, for the 2006 Board approved, 2006 actual, 2007 bridge year, and 2008 test year regarding the following regulatory costs and present it in the following table format”

Regulatory Cost Category	Ongoing or One-Time Cost?	2006 Actual	2007 (as of Dec 07)	% Change in 2007 vs. 2006	2008 Forecast	% Change in 2008 vs. 2007
1. OEB Annual Assessment	Ongoing	35,827	30,198	-16%	32,000	106%
2. OEB Hearing Assessments (applicant initiated)	One-Time	0	0	0%	5,000	100%
3. OEB Section 30 Costs (OEB initiated)						
a) OEB	One-Time	0	1,563	100%	1,563	100%
b) VECC	One-Time	0	2,625	100%	5,250	200%
c) Energy Probe	One-Time	5,067	0	-100%	5,250	100%
d) SEC	One-Time	0	0	0%	5,250	100%
4. Expert Witness cost for regulatory matters	One-Time	0	5,128	100%	1,831	36%
5. Legal costs for regulatory matters	One-Time	0	7,046	100%	64,000	908%
6. Consultants costs for regulatory matters	Ongoing	0	8,000	100%	10,000	125%
7. Operating expenses associated with staff resources allocated to regulatory matters	One-Time	0	325	100%	1,800	554%
8. Operating expenses associated with other resources allocated to regulatory matters (please identify the resources)	One-Time	0	1,000	0%	1,000	100%
9. Other regulatory agency fees or assessments	Ongoing	4,602	4,862	6%	5,105	105%
10. Any other costs for regulatory matters (please define)	Ongoing	800	800	0%	800	100%
<b>Totals</b>		<b>46,296</b>	<b>61,547</b>	<b>12,349</b>	<b>138,849</b>	
<b>2007-2008 Projection</b>		<b>46,296</b>	<b>49,198</b>	<b>Carry Over to 2008</b>	<b>149,198</b>	

a) Under “Ongoing or One-time Cost”, please identify and state if any of the regulatory costs are “One-time Cost” and not expected to be incurred by the applicant during the impending two year period when the applicant is subject to 3<sup>rd</sup> Generation IRM process or it is “Ongoing Cost” and will continue throughout the 3<sup>rd</sup> Generation of IRM process.

**LUI’s Response:**

**Please refer to above updated table**

b) Please state the utility’s proposal on how it intends to recover the “One-time” costs as a part of its 2008 rate application.

**LUI’s Response:**

**Please refer to LUI’s response to Question 3.12 (c).**

**3.14 Ref: Exhibit(s) 2006 EDR Application Model, Sheet “7-2 ALLOCATION - LV-Wheeling”**

In Lakefront Utilities’s 2006 EDR Application Model, Sheet “7-2 ALLOCATION - LV-Wheeling”, Cell L120 has included the amount of \$230,721 for Low Voltage charges. This Low Voltage charge was handled as a pass through charge in the 2006 EDR model. It was included into rates as a rate adder on the above referenced worksheet and accounted for as General and Administrative expense (or more intentionally as a revenue offset).

a) Please confirm whether or not Lakefront Utilities has included a budget amount in the 2008 Cost of Service or OM & A budget for low voltage.

**LUI’s Response:**

**LUI shows a 2008 OM&A budget of \$346,196 for LV Charges Costs in Ac# 4750.**

b) If yes please state reasons for including and identify the amounts included including detailed calculation.

**LUI’s Response:**

**The \$230,721 for Low Voltage in 2006 is actually for the period of May06 to Dec06, a period of eight months. The monthly amount is approximately \$28,850.00. Twelve months of \$28,840 were used to derive the \$346,196 as well as projection of bills received from Hydro One to date at the time of the Application preparation.**

c) If no, please declare confirmation that no amounts have been included in Cost of Service or OM&A for Low Voltage.

**LUI’s Response:**

**Not Applicable**

### **3.15 Ref: Exhibit(s) 2007 Incremental CDM Funding**

In 2007 Lakefront Utilities filed an application for \$550,000 incremental CDM funding to upgrade its distribution network to a higher voltage. The Board's Decision and Order EB-2007-0550 and EB-2007-0106 dated April 12, 2007 allowed Lakefront Utilities to include into rates the amount of \$38,761 which is the annual capital-related expenses for \$550,000 investment in the first year. The amount \$38,761, when applied to rates, resulted in a rate adder of \$0.00037 per kWh for both the Residential and General Service Less than 50 kW classes. The Board also approved a new sub-account in Account 1508 to track expenditures of this program pending a decision on the amount requested.

On August 13, 2007 the Board issued its Decision EB-2007-0106 which decided that Lakefront Utilities was entitled to claim only \$119,169 of the \$550,000 requested. The Board did not change Lakefront Utilities Tariff of Rates and Charges at that time, but stated it would address the over-collection prior to rate re-basing.

a) Please confirm that Lakefront Utilities has started the upgrade project to higher voltage for its distribution network as originally proposed in the 2007 Incremental CDM proposal. If Lakefront Utilities does not confirm, please explain why not.

#### **LUI's Response:**

**LUI has started the voltage conversion project**

b) Please confirm that Lakefront Utilities has not changed to any significant degree the proposed upgrade project. If Lakefront Utilities does not confirm, please explain why not.

#### **LUI's Response:**

**LUI has not changed the scope of the project**

c) Please confirm that Lakefront Utilities has opened the approved subaccount to Account 1508, as authorized April 12, 2007. Please provide a forecast of amounts collected and spent as of April 30, 2008. If Lakefront Utilities does not confirm, please explain why not.

**LUI's Response:**

**Below is a table of the forecast of amount LUI anticipate to collect up to Aril 30,2008 and the amount of \$38,761 by June, 2008-01-27**

<b>Lakefront Utilities</b>								
	<b>Actual</b>			<b>Prescribed</b>				
	<b>Opening</b>	<b>Estimate</b>	<b>.21675 BA</b>	<b>Exp</b>		<b>Closing</b>	<b>Interest</b>	<b>Simple</b>
	<b>Balance</b>	<b>Collected</b>	<b>Expense</b>	<b>%</b>	<b>%</b>	<b>Balance</b>	<b>Rate</b>	<b>Interest</b>
May-07	\$ -	\$ 109		0.00282				
Jun-07		\$ 1,300		0.03353				
Jul-07		\$ 2,751		0.07097				
Aug-07		\$ 3,371		0.08697				
Sep-07		\$ 3,387		0.08738				
Oct-07		\$ 3,708		0.09566				
Nov-07		\$ 2,702		0.06972				
Dec-07		\$ 2,839		0.07325				
Jan-08		\$ 3,230		0.08333				
Feb-08		\$ 3,230		0.08333				
Mar-08		\$ 3,230		0.08333				
Apr-08		<u>\$ 2,968</u>		0.07657				
		<u>\$ 32,825</u>						
May-08		\$ 2,968		0.07657				
Jun-08		<u>\$ 2,968</u>		0.07657				
		<u><b>\$ 38,761</b></u>	<b>0.00</b>		0.00000			

<b>Board Table</b>		<b>LUI Collected</b>		<b>Difference</b>
May-07	\$ 3,230	May-07	\$ 109	\$ 3,121
Jun-07	\$ 3,230	Jun-07	\$ 1,300	\$ 1,930
Jul-07	\$ 3,230	Jul-07	\$ 2,751	\$ 479
Aug-07	\$ 3,230	Aug-07	\$ 3,371	\$ (141)
Sep-07	\$ 3,230	Sep-07	\$ 3,387	\$ (157)
Oct-07	\$ 3,230	Oct-07	\$ 3,708	\$ (478)
Nov-07	\$ 3,230	Nov-07	\$ 2,702	\$ 528
Dec-07	\$ 3,230	Dec-07	\$ 2,839	\$ 391
Jan-08	\$ 3,230	Jan-08	\$ 3,230 <b>Est</b>	\$ -
Feb-08	\$ 3,230	Feb-08	\$ 3,230 <b>Est</b>	\$ -
Mar-08	\$ 3,230	Mar-08	\$ 3,230 <b>Est</b>	\$ -
Apr-08	\$ 3,230	Apr-08	\$ 2,968 <b>Est</b>	\$ 262
May-08	\$ -	May-08	\$ 2,968 <b>Est</b>	\$ (2,968)
Jun-08	<u>\$ -</u>	Jun-08	<u>\$ 2,968 <b>Est</b></u>	<u>\$ (2,968)</u>
	<u><b>\$ 38,761</b></u>		<u><b>\$ 38,761</b></u>	<u><b>\$ 5,935</b></u>

LUI did not start seeing the collection until mid August, due to when rates were implemented and consumption is pro-rated back to May 2007. The balance will still continue to be collected in May 2008 & Jun 2008 for the consumption billings of Apr 2008.

d) Please confirm agreement that the final \$119,169 in approved incremental CDM funding requirement would require only \$8,398 in capital related expenses. If Lakefront Utilities does not confirm, please explain why not.

**LUI's Response:**

The Board decision dated August 13, 2007 did not indicate \$8,938 is the approval. In LUI's CDM Application, LUI was applying for the full \$550,000 amount for Voltage conversion spending, similar to our \$170,000 third tranche amount. At the time of the \$38,761 approval amount in April 12, 2007, LUI was seeking the full amount of capital costs to be collected from rate payers and the \$38,761 was a temporary decision while a hearing was conducted in related to the approval of the extended MARR-based CDM Program, thus the interrogatory process. Accordingly, when the August 13, 2007 decision was release, the \$119,169 is the amount we should recover from rates as the decision made no mention of \$8,938 nor reducing the \$38,761 figure.

e) Please confirm that Lakefront Utilities agrees with Board Staff Table 4. This table compares collected revenues based on the adder of \$0.00037 per kWh and the approved expenses of \$8,398 in capital related expenses. The table indicates that Lakefront Utilities will have over collected the amount of \$30,363 by the end of April 2008 and that simple interest on the over-collection will amount to \$704 as shown below. If Lakefront Utilities does not confirm, please explain why not.

**Board Staff Table 4**

	Opening		.21675	Closing	Prescribed	
	Balance	Collected	Expense	Balance	Interest	Simple
					Rate	Interest
May-07	\$ -	\$ 3,230	\$ (700)	\$ 2,530	4.59%	\$ -
Jun-07	\$ 2,530	\$ 3,230	\$ (700)	\$ 5,061	4.59%	\$ 10
Jul-07	\$ 5,061	\$ 3,230	\$ (700)	\$ 7,591	4.59%	\$ 19
Aug-07	\$ 7,591	\$ 3,230	\$ (700)	\$ 10,121	4.59%	\$ 29
Sep-07	\$ 10,121	\$ 3,230	\$ (700)	\$ 12,651	4.59%	\$ 39
Oct-07	\$ 12,651	\$ 3,230	\$ (700)	\$ 15,182	5.14%	\$ 54
Nov-07	\$ 15,182	\$ 3,230	\$ (700)	\$ 17,712	5.14%	\$ 65
Dec-07	\$ 17,712	\$ 3,230	\$ (700)	\$ 20,242	5.14%	\$ 76
Jan-08	\$ 20,242	\$ 3,230	\$ (700)	\$ 22,772	5.14%	\$ 87
Feb-08	\$ 22,772	\$ 3,230	\$ (700)	\$ 25,303	5.14%	\$ 98
Mar-08	\$ 25,303	\$ 3,230	\$ (700)	\$ 27,833	5.14%	\$ 108
Apr-08	\$ 27,833	\$ 3,230	\$ (700)	\$ 30,363	5.14%	\$ 119
		<b>\$ 38,761</b>	<b>\$ (8,398)</b>			<b>\$ 704</b>

**LUI's Response:**

**LUI disagrees with the table above, please refer to our response to Question 3.15 d above.**

f) Please confirm that Lakefront Utilities agrees that the net fixed asset amount to be added to opening balance for 2008 is \$116,970 in respect to the incremental CDM project upgrading the distribution system to higher voltage. This value is determined in Board Staff Table 5. If Lakefront Utilities does not confirm, please explain why not.

**LUI's Response:**

**LUI disagrees with the table above, please refer to our response to Question 3.15 d above.**

**Board Staff Table 5**

	<b>Fixed</b>		<b>Net Fixed</b>
	<b>Asset</b>	<b>Amortization</b>	<b>Asset</b>
Jan-07	\$ 119,969	\$ 250	\$ 119,719
Feb-07	\$ 119,719	\$ 250	\$ 119,469
Mar-07	\$ 119,469	\$ 250	\$ 119,219
Apr-07	\$ 119,219	\$ 250	\$ 118,969
May-07	\$ 118,969	\$ 250	\$ 118,719
Jun-07	\$ 118,719	\$ 250	\$ 118,469
Jul-07	\$ 118,469	\$ 250	\$ 118,219
Aug-07	\$ 118,219	\$ 250	\$ 117,970
Sep-07	\$ 117,970	\$ 250	\$ 117,720
Oct-07	\$ 117,720	\$ 250	\$ 117,470
Nov-07	\$ 117,470	\$ 250	\$ 117,220
Dec-07	\$ 117,220	\$ 250	\$ 116,970

g) Please confirm that Lakefront Utilities will complete the distribution system voltage upgrade, reduce the overall project costs to \$119,169, create a rate rider to refund the \$30,363 plus \$704 interest over recovery over one year to the residential and general service less than 50 kW class and consider the utility paid in full for all monies expended in respect to the 2007 capital expenses for this project. If Lakefront Utilities does not confirm, please explain why not.

**LUI's Response:**

**LUI disagrees with the above statement, please refer to our response to Question 3.15 d above.**

h) Please confirm that Lakefront Utilities agrees that the 2007 and 2008 forecast amounts to Account 5415 Energy Conservation for \$119,169 and \$80,408 are related only to the voltage upgrade project. If so please confirm that Lakefront Utilities agrees that the 2008 amount of

\$80,408 should be removed from the 2008 revenue requirement. If Lakefront Utilities does not confirm, please explain why not.

**LUI's Response:**

**Please refer to LUI response to Question 3:15 d**

## 4 SMART METERING

### 4.1 Ref: Exhibit(s) Exhibit 1 /Tab 2 /Schedule 1:

In the first paragraph Lakefront Utilities states: "Lakefront Utilities Inc. participated with Cornerstone Hydro Electric Concept (CHEC) group in submitting a comprehensive smart metering plan to the Ministry of Energy. Our intent is to install smart meters throughout our entire service territory in 2008."

Lakefront Utilities is not one of the thirteen licensed distributors authorized by Ontario Regulation 427/06 to conduct discretionary metering activities with respect to smart meters. In its decision on Lakefront Utilities' 2007 IRM application (EB-2007-0550 / EB-2007-0160), the Board confirmed its understanding that Lakefront Utilities would not be undertaking any smart metering activity (i.e. discretionary metering activity) in 2007.

a) In light of its "un-named" status, please explain under what authority Lakefront Utilities has decided to undertake smart meter activity in 2008.

#### LUI's Response:

LUI, as a member of the Cornerstone Hydro Electric Concept (CHEC) group, and together with the Ontario Users of Smart Meters (OUSM) group, are in discussions with London Hydro and the Ministry of Energy to be part of the Phase 2 RFP process for Smart Meters. In October 2007, CHEC met with the MoE to discuss the Smart Meter plan and move forward by "Piggy Backing" on the government approved procurement process (London or the CLD). We requested a letter from the MoE to authorize CHEC to move forward with the procurement stage of the SMI while we await the update to the Discretionary Metering Regulations reflecting the right for the utilities to continue. Attached as Appendix (Viii) is a copy of the letter received from the MoE dated December 21, 2007.

Additionally, Section 53.18 of the *Electricity Act, 1998* allows the Board to authorize discretionary metering by way of an order, which the Board could do as part of this proceeding.

b) Please provide copies of all directives and regulations Lakefront Utilities has received from the Ontario Government directing or allowing the utility to undertake smart meter activities.

#### LUI's Response:

There are no directives or regulations LUI has received from the Ontario Government to date. Attached as Appendix (Viii) is a copy of the letter received from the MoE dated December 21, 2007.

c) Has Lakefront Utilities undertaken any smart meter activity in 2007? If so please explain in full all smart meter activities and associated costs. In the next paragraph Lakefront Utilities states: "Lakefront Utilities Inc. has included our smart metering program, as noted in capital and OM&A costs, as part of our rate application. Lakefront Utilities Inc. is not requesting the continuance of the existing smart metering rate rider or the establishment of a new comprehensive rate rider in this

application as all costs relating to smart meter implementation is included as part of normal operation.”

**LUI’s Response:**

**LUI has not undertaken any smart meter activity in 2007 other than a study of inside and outside meters to be changed out in preparation of installation and actively participating with other CHEC members in the technology selection process through the OUSM group that would best suit our utility.**

d) Please confirm whether “all costs relating to smart meter implementation is included as part of normal operation” means that Lakefront Utilities is incorporating the smart meter capital expenditure amount into the rate base and includes the associated return and OM&A smart meter costs in permanent distribution rates in 2008.

**LUI’s Response:**

**Yes, Lakefront took the approach of including Smart Meters cost for 2008 into rate base because of the Government’s mandate is to implement Smart Meters by 2010. Approximately half of our customers’ meter seals are expired or on the verge of expiration. We have advised Measurement Canada and sought a reprieve. However, we believe it is imprudent and unfair to our customers to replace expired seal meters with just kWh meters only to change them out within a short period. The cost, of approximately \$300,000 will be a stranded cost that our rate payers would have to bear unnecessarily.**

e) Please prepare a comprehensive listing of all operational costs by work unit for smart meter costs included in the 2008 budget. Include in this listing the work unit where the smart meter cost is accounted for in the budget, description of activity, and amount budgeted. In particular, please identify for each of the reported budget amounts whether Lakefront Utilities considers the cost to be a component of minimum functionality, or if the amount is incidental/incremental to minimum functionality.

**LUI’s Response:**

**Below is a table of operational costs by work unit for Smart Meter costs included in the 2008 budget.**

Smart Metering operational costs	
Operations	
AMRC including WAN costs	4,941
AMCC	17,093
AMI miscellaneous, including labour for daily operations	116,316
Measurement Canada re-verification accrual account	23,380
Contingencies at 5%	8,087
	<u>169,817</u>
Billing/customer service	
Smart meter entity MDM/R, est. based on OEB 2005	40,475
Contingencies at 5%	2,023
	<u>42,498</u>
Total operations and billing budget	212,315
Depreciation 50% rule for 2008	1 58,192
Total smart meter O&M budget	<u>270,507</u>

Depreciation is calculated over 17.5 years straight line , on 2,041,819 at 5.7%

**Depreciation is calculated over 17.5 years straight line, on \$2,041,819 at 5.7% for a total of \$116,384 for 2008 at the 50% rule for \$58,192. The smart meter operating costs are accounted for in the budget under account 5175 maintenance of meters in the amount of \$212,315.**

**The depreciation is located in accumulated depreciation and depreciation expense, account 5705, in the amount of \$58,192. Lakefront Utilities considers the costs to be a component of minimum functionality.**

**4.2 Ref: Exhibit(s) Exhibit 2 /Tab 3 /Schedule 1: Capital Budget by Project - 2008**

On page 7, Lakefront Utilities indicates that the capital expenditure amount for account 1860 – Smart Meters is \$2,037,923 in 2008. Please indicate how many smart meters Lakefront Utilities plans to install in 2008.

**LUI's Response:**

**At the time of preparation of the Application, LUI planned to install approximately 8,923 smart meters for our Residential and General Service Less that 50KW customers.**

## **5 DISTRIBUTION REVENUE**

### **5.1 Ref: Exhibit(s) Exhibit 3, Tab 3, Schedule 1,**

Please provide the sources of the Interest Income, specifically stating whether any of this interest relates to regulatory assets.

#### **LUI's Response:**

**The interest income is bank interest for the cash LUI has on hand.**

**5.2 Ref: Exhibit(s) Exhibit 1, Tab 2, Schedule 5**

a) Please state what new specific charges, if any, Lakefront Utilities Inc. is proposing for the 2008 test year. For any new such charges please state whether or not Lakefront Utilities Inc. is seeking the standard rate or non-standard rate.

**LUI's Response:**

**LUI is proposing to add a non-standard rate for an Interval Meter Load Management Tool Charge of \$110/month. This is a useful tool for customers to use and monitor load management and facilitate peak demand shifting for conservation purposes etc.**

i In the event that non-standard rate is sought, please provide cost justification for that rate.

**LUI's Response:**

**LUI is proposing to add the Interval Meter Load Management Tool Charge as this is a service our Service Provider charges LUI and we would like to pass through this cost to our customers that utilize this tool and service.**

ii For any new specific service charges Lakefront Utilities Inc. is proposing, please confirm that Lakefront Utilities Inc. has made any necessary adjustments so that these costs will not also be recovered through the general revenue requirement.

**LUI's Response:**

**The specific service charge is not reflected in the general revenue requirement. It shows as an offset item as all other specific charges.**

b) Please note that the standard rate for "Collection of account charge –no disconnection – after regular hours" is \$165.00. It appears that Lakefront Utilities has proposed an amount of \$185.00. Please confirm that Lakefront Utilities is seeking a different rate from the standard rate and, if so, please provide cost justification for the proposed charge

**LUI's Response:**

**The \$185.00 figure was a typo error and below is an update Specific Service Charge sheet with the correction.**

**Lakefront Utilities Inc.  
Rates and Charges**

**2008**

**Specific Service Charges**

Arrears Certificate	\$ 15.00
Statement of Account	\$ 15.00
Pulling post-dated cheques	\$ 15.00
Request for other billing information	\$ 15.00
Easement Letter	\$ 15.00
Income Tax Letter	\$ 15.00
Credit Reference/credit check	\$ 15.00
Returned cheque charge (plus bank charges)	\$ 15.00
Legal letter charge	\$ 15.00
Account setup charge/change of occupancy	\$ 30.00
Special Meter Reads	\$ 30.00
Collection of account charge - no disconnection	\$ 30.00
Collection of account charge - no disconnection - after regular hours	\$ 185.00
Disconnect/Reconnect at meter - during regular hours	\$ 65.00
Install/Remove load control device - during regular hours	\$ 65.00
Disconnect/Reconnect at meter - after regular hours	\$ 165.00
Install/Remove load control device - after regular hours	\$ 185.00
Disconnect/Reconnect at pole - during regular hours	\$ 185.00
Disconnect/Reconnect at pole - after regular hours	\$ 415.00
Service call - customer-owned equipment	\$ 30.00
Service Call - after regular hours	\$ 165.00
Temporary service install & remove O/H - no transformer	\$ 500.00
Temporary service install & remove U/G - no transformer	\$ 300.00
Temporary service install & remove O/H - with transformer	\$ 1,000.00
Specific charge for access to the Power poles \$/pole/year	\$ 22.35
Interval Meter Load Management Tool charge (\$110/month)	\$ 110.00

## 6 VOLUMETRIC FORECAST

### 6.1 Ref: Exhibit(s) Exhibit 3/ Tab 2/ Schedule 1/ page 1)

In Schedule 1, page 1, Lakefront Utilities Inc. very briefly explains how it developed its 2008 load forecast. While parts of the explanation are missing, Lakefront Utilities Inc. appears to have used a similar approach to some other applicants. Hence, the essential approach used appears to be that Lakefront Utilities Inc.:

- i Determined the 2008 forecasted customer count for each customer class,
- ii Determined the weather-normalized retail energy for each customer class for 2004,
- iii Determined the 2004 retail normalized average use per customer (NAC) for each class by dividing each of these weather-normalized retail energy values by the number of customers/connections in each class existing in 2004,
- iv Applied the 2004 NAC for each class to the 2008 Test Year *without modification*, and
- v Determined the 2008 Test Year energy forecast for each customer class by multiplying the applicable 2004 NAC for each class by the 2008 forecasted customer count in that class.

a) Please verify that the above is the essence of Lakefront Utilities Inc.'s load forecasting methodology, and

**LUI's Response:**  
**LUI verifies as correct**

b) Fully correct any errors in the above explanation if it is not.

**LUI's Response:**  
**No applicable**

**6.2 Ref: Exhibit(s) Exhibit 3/Tab 2/Schedule 1/p1**

In Schedule 1, page 1, Lakefront Utilities Inc. notes that the results for Street Lighting customers were skewed and this "...did not represent a realistic forward scenario." Please fully explain the situation encountered together with the applicable values.

**LUI's Response:**

**LUI has concerns regarding the Cost Allocation output, due to the fact that in Sheet 01 Revenue to Cost Summary Worksheet, miscellaneous revenues of \$578,484 were allocated across customer classes and that figure is inflated by \$296,000 of Regulatory Interest.**

**We also believe that allocation of expenses and other items, such as net income and revenue requirements were calculated based on number of connections rather than number of accounts. This inflated the figure for Street Lights in particular but also distorted the other classes figures. LUI is planning to redo the Cost Allocation Study in 2008 due to changes in customer data and misapplication of the Street Lighting data.**

### **6.3 Ref: Exhibit(s) Exhibit 3/Tab 2/Schedule 1/p2**

In Schedule 1, page 2, Lakefront Utilities Inc. presents a table of Customer and Load Forecast Data. Please:

a) Verify that the total kWh consumption for “Historical Actual Normalized 2006” is 300,473,472 kWh and the 2006 customer count is 11,797,

#### **LUI’s Response:**

**The kWh figures are correct. However, please note that within the 11,797 customer count, there are actually 2,693 Street Light connections but only 2 customers.**

b) Verify that the total kWh consumption for “Test Year Normalized Forecast 2008” is 289,948,010 kWh and the 2008 customer count is 12,092,

#### **LUI’s Response:**

**The kWh figures are correct. However, please note that within the 12,092 customer count, there are actually 2,739 Street Light connections but only 2 customers.**

c) Verify that the average annual change in kWh consumption over the 2006 to 2008 period is approximately -1.75%,

#### **LUI’s Response:**

**This is correct due to the forecast loss of customers in the GS>50-2,999KW class.**

d) Verify that the average annual change in customer count over the 2006 to 2008 period is approximately +1.25%, and

#### **LUI’s Response:**

**LUI verifies this is correct due to the forecast loss of total customers change in our service territory with majority of change occurring in the residential class and decrease in the GS>50-2,999KW class.**

e) Rationalize the approximately 3% annual difference in change between the total kWh consumption and the total customer count especially in light of the apparent assumption that the total kWh consumption and the customer count are in lockstep.

#### **LUI’s Response:**

**The change is due to a loss in the larger customer class of GS>50-2,999KW who have larger consumptions. The customer count increase is in the residential and GS<50KW classes, which are lower consumption customers resulting in a net increase in customers but a loss of energy.**

#### **6.4 Ref: Exhibit(s) Exhibit 3/Tab 2/Schedule 1/p3**

In Schedule 1, page 3, Lakefront Utilities Inc. noted that for the GS>3,000 to 4,999 kW customer class the years 2004-05 showed anomalous growth (2.46% and 4 % respectively) and this historical growth was omitted from the trend line used to develop the forecast. While the 2004-05 growths may have been unusual, the rationale of removing these values from the trend analysis and simply assuming a 0% annual growth is not clear.

a) Please provide detailed justification for rejecting the 2004 and 2005 values and explain the selection of the 0% annual growth assumption, and

#### **LUI's Response:**

**LUI's largest customer (Kraft Canada) has been reducing their load over the last year and has recently announced that the plant will be closing October 2008. During the year 2008, there will be a continual reduction in their load as they wind down operation.**

**Since Kraft is our largest customer and represents approximate 5% of our 2008 revenue, (and is anticipated to represent approximately 10% if the full revised cost allocation was implemented), LUI will have to make adjustments to the cost allocation filing and Application rate model to account for the above change.**

b) Estimate the 2007 and 2008 values if the 2004 and 2005 values had not been eliminated from the growth analysis.

#### **LUI's Response:**

**Please refer to response to Question 6.4 a, the energy values should be adjusted to reflect to loss of LUI's largest customers.**

### 6.5 Ref: Exhibit(s) Exhibit 3/Tab 2/Schedule 1/p1-2

In Schedule 1, pages 1 and 2, Lakefront Utilities Inc. determines the 2004 retail normalized average use per customer (NAC) for each class and apparently uses this value for other years also. This does not appear to adequately weather-normalize the energy usage in historical years and does not allow for the possible change in energy usage per customer over the 2002 – 2008 period due, for example, to Conservation and Demand Management. The minimal weather normalization and the constant retail energy assumption could potentially lead to forecasting errors.

a) Please file a data table for the historical years 2003 to 2006 that shows:

- i The actual retail energy (kWh) for each customer class in each year,
- ii The *weather normalized* retail energy (kWh) for each customer class in each year (where, for the customer classes that Lakefront Utilities Inc. has identified as weather sensitive, the weather normalization process should, as a minimum, involve the direct conversion of the actual load to the weather normalized load using a multiplier factor for that year *and not rely on results for any other year*),
- iii The values of the weather conversion factors used,
- iv The customer count for each class in each year,
- v The retail normalized average use per customer for each class in each year based on the *weather corrected* kWh data in item ii above, and
- vi As a footnote to the table, the source(s) of the weather correction factors.

b) Please file a data table for the 2003 to 2008 period:

- i Utilizing the retail normalized average use per customer values for each class in each year obtained in a) v. above for the historical years 2003 to 2006,
- ii Including 2007 and 2008 projections for the retail normalized average use per customer values (where, for each of the weather-sensitive classes, this is based on trends in the data) for each class, and
- iii For each of the weather-sensitive classes, describe in detail the trend analysis performed in ii. above.

c) Please file an updated version of the Schedule 1, page 2, Customer and Load Forecast Data table, utilizing the *weather corrected* data determined in b) above.

### LUI's Response:

Please refer to the below table and responses to Question 6.5 a.

**i Actual Retail kWh**

Customer Class	2003	2004	2005	2006
Residential	69,686,041	72,371,676	76,866,668	72,312,541
GS < 50 kW	35,887,357	33,457,986	33,441,962	33,771,049
GS > 50 - 2999 kW	119,213,266	125,155,484	125,407,951	127,018,112
GS > 3000 - 4999 kW	55,999,658	61,881,063	52,606,618	55,719,421
Streetlights	1,920,944	2,001,724	2,010,797	2,017,028
Sentinel Lights	35,830	54,199	43,908	53,214
USL	528,116	470,547	574,468	620,588
<b>Total</b>	<b>283,271,212</b>	<b>295,392,679</b>	<b>290,952,372</b>	<b>291,511,953</b>

**ii. Weather normalized retail: The following table outlines the weather normalized retail energy (kWh) for each customer class for 2003 to 2006.**

Customer Class	2003	2004	2005	2006
Residential	71,707,446	72,247,325	73,249,957	75,014,202
GS < 50 kW	33,255,622	33,461,965	35,319,052	35,903,691
GS > 50 - 2999 kW	125,603,976	125,603,976	137,610,238	131,145,328
GS > 3000 - 4999 kW	61,881,063	61,881,063	61,881,063	55,719,421
Streetlights	1,983,547	2,001,724	2,015,357	2,017,028
Sentinel Lights	51,243	54,199	55,184	53,214
USL	470,547	470,547	464,356	620,588
<b>Total</b>	<b>294,953,444</b>	<b>295,720,799</b>	<b>310,595,207</b>	<b>300,473,472</b>

**iii. Values weather conversion factor**

Customer Class	2003	2004	2005	2006
Residential	1.029	0.998	0.953	1.037
GS < 50 kW	0.927	1.000	1.056	1.063
GS > 50 - 2999 kW	1.054	1.004	1.097	1.032
GS > 3000 - 4999 kW	1.105	1.000	1.176	1.000
Streetlights	1.033	1.000	1.002	1.000
Sentinel Lights	1.430	1.000	1.257	1.000
USL	0.891	1.000	0.808	1.000

**iv. Customer Count**

Customer Class	2003	2004	2005	2006
Residential	7,438	7,494	7,598	7,781
GS < 50 kW	967	973	1,027	1,044
GS > 50 - 2999 kW	136	136	149	142
GS > 3000 - 4999 kW	2	2	2	2
Streetlights	2,619	2,643	2,661	2,693
Sentinel Lights	52	55	56	56
USL	76	76	75	79
<b>Total</b>	<b>11,290</b>	<b>11,379</b>	<b>11,568</b>	<b>11,797</b>

v. The retail normalized average use per customer for each class in each year based on the weather corrected kWh data in item ii. above, is outlined in the following table

Customer Class		2003	2004	2005	2006
Residential		9,641	9,641	9,641	9,641
GS < 50 kW		34,391	34,391	34,391	34,391
GS > 50 - 2999 kW		923,559	923,559	923,559	923,559
GS > 3000 - 4999 kW		30,940,532	30,940,532	30,940,532	27,859,711
Streetlights		757	757	757	749
Sentinel Lights		985	985	985	950
USL		6,191	6,191	6,191	7,856
<b>Total</b>		<b>31,916,056</b>	<b>31,916,056</b>	<b>31,916,056</b>	<b>28,836,855</b>

vi. LUI retained Hydro One to assist us with the Cost Allocation Filing in 2006, as most other distributors in the province did, to weather normalize the 2004 volumes by rate class. From the documentation provided by Hydro One the following summaries the weather normalization process used in the cost allocation study.

*“Weather correction is a statistical process designed to remove the impact of abnormal or extreme weather conditions from historical load data. Normal weather data is defined to be data that is based on the average weather conditions experienced over the last 31 years. A weather-normal load forecast is a forecast of load assuming normal weather conditions with a weather-corrected base year. The weather correction method is applicable to the total utility load as well as by rate class.”*

Hydro One was approached to conduct a weather normalized forecast for the 2008 test but the resources that were available to prepare the weather normalized information for the cost allocation study were no longer available. In discussion with our Rate Model consultant (Elenchus Research Associates), they offered to assist LUI with this initiative utilizing output from the Cost Allocation Filing dated January 2007, in consideration of a simplistic approach that could be produced in a cost effective manner.

LUI believe the method of using the 2004 weather normalized data as base data in the application to produce the weather normal forecast for 2008 is the most reasonable approach considering the 2004 weather normalized values reflects 31 years of average weather conditions. At the time the application was prepared the only improvement that could have been made to the process would be to include 2005 and 2006 actual data in the 31 year average but it is expected this would not significantly change the 2004

weather normalized results and the cost to include 2005 and 2006 data would be outweighed by the benefits.

b) The following table outlines the weather corrected average kWh/Customer values for the years 2003 to 2008 for the rate classes that are weather sensitive.

Customer Class	2003	2004	2005	2006	2007	2008
Residential	9,641	9,641	9,641	9,641	9,641	9,641
GS < 50 kW	34,391	34,391	34,391	34,391	34,391	34,391
GS > 50 – 999 kW	923,559	923,559	923,559	923,559	923,559	923,559

The method used to determine the values for 2007 and 2008 reflects the average for the years 2003 to 2006.

c) There are no changes to Exhibit 3, Tab 2, Schedule1, page 2.

## 7 COST ALLOCATION

### 7.1 Ref: Exhibit(s) Exhibit 2/Tab 4/Schedule 1/ page 2

The statement for 'Working Capital Allowance Calculation by Account', account 4750 – LV Charges Costs, shows an increase from \$229,603 actual cost in 2006, a projected cost of \$343,449 in 2007, and a forecast of \$346,196 in 2008. The 2006 actual is very close to the approved amount in the 2006 EDR model.

a) Please provide an explanation for the increase in 2007, along with data such as monthly settlement amounts with the host distributor.

#### LUI's Response:

The \$230,721 for Low Voltage in 2006 is actually for the period of May06 to Dec06, a period of eight months. The monthly amount is approximately \$28,850.00. Twelve months of \$28,850 were used to derive the \$346,196 in 2008 as well as projection of bills received from Hydro One to date at the time of the Application preparation. Attached as Appendix iX are copies of HONI LV changes to LUI.

b) Please show how the forecast cost of \$346,196 is allocated to the customer classes, including the amounts allocated and the allocation method. (If applicable, the response should include an update on customer class billing totals from the Retail Transmission Service Connection Rate.)

#### LUI's Response:

The table below shows the allocation of the \$346,196 to customer classes

Customer Class	Low Voltage Charges		
	Total \$	Load	Rate Δ
Residential	101,285	77,241,202	\$0.0013
General Service Less Than 50 kW	44,109	36,960,206	\$0.0012
General Service 50 to 2,999 kW	130,026	270,520	\$0.4807
General Service 3,000 to 4,999 kW	67,897	123,329	\$0.5505
Street Lighting	1,955	5,335	\$0.3665
Sentinel Lighting	37	98	\$0.3710
Unmetered Scattered Load	887	620,588	\$0.0014
<b>TOTAL</b>	<b>346,196</b>		

c) Please provide a breakout of the LV component within the monthly fixed charge and the volumetric charge for each of the classes.

**LUI's Response:**

**Please refer to below details. There are no monthly fixed charge for LV.**

<b>Customer Class</b>	<b>Volumetric</b>	<b>Rate</b>
<b>Residential</b>	<b>kWh</b>	<b>\$0.0007</b>
<b>GS&lt;50KW</b>	<b>kWh</b>	<b>\$0.0005</b>
<b>GS&gt;50-2,999</b>	<b>KW</b>	<b>\$0.2471</b>
<b>GS 3,000-5,000</b>	<b>KW</b>	<b>\$0.2820</b>
<b>USL</b>	<b>kWh</b>	<b>\$0.0000</b>
<b>Sentinel Light</b>	<b>KW</b>	<b>\$0.1884</b>
<b>Street Lighting</b>	<b>KW</b>	<b>\$0.1835</b>

**7.2 Ref: Exhibit(s) Exhibit 8/Tab 1/Schedule 2**

Please file the “rolled-up” version of the referenced Run 2 of the Informational filing EB-2006-0247 as an official part of the record of this Application.

**LUI’s Response:**

**Please refer to CD enclosed with this response for the Cost Allocation Run 2 Informational filing EB-2006-0247.**

**7.3 Ref: Exhibit(s) Exhibit 8/Tab 1/Schedule 2/pages 3 and 5**

The calculated revenue to cost ratio for the GS 3000-4999 kW class is 24.94%. Under the proposed rates, the proportion of total revenue generated by this class would increase from 3.19% to 9.29%, and the resulting revenue to cost ratio would be increased to 70.47%. The purpose of the allocator LTNCP4 is to allocate the cost of the distributor's line transformers to the classes that are served by the transformers. The loads of the respective classes are input at Sheet I8 'Demand Data'.

a) Please confirm that the load of the GS 3000-4999 kW class has been input at its full amount without allowing for the load of customer-owned transformers, and that the load of other classes such as Residential has been input at zero despite being served by transformers supplied by Lakefront Utilities.

**LUI's Response:**

**LUI has made the changes indicated above in our Cost Allocation Worksheet (Sheet I6 Customer Data), to demonstrate the impact, recognizing this as one of the errors in the filing as previously mentioned in our Rate Application. In addition, we made the correction to remove \$296,000 miscellaneous revenues in Sheet O1 Revenue to Cost/RR (related to Transition Cost interest – refer to Question 10.5), but did not make other corrections such as the number of connections for Street Lights that are disproportionately allocation miscellaneous revenues to this class.**

**Below are the output sheets for Sheet I6 Customer Data and Sheet O1 Revenue to Cost with the changes made for your perusal. As can be seen, not only the GS 3,000-4,999KW class is affected, but all other classes and supports LUI's assertion for us to redo the Cost Allocation model.**

**Below in yellow highlight are the changes made to I6 Customer Data Sheet in the Cost Allocation Filing**

Total Number of Customer from Approved EDR, Sheet 7-1, Col H excluding connections	<b>CCA</b>	8,738	7,494	973	136	2	2	55	76
Bulk Customer Base	<b>CCB</b>	-	-	-	-	-	-	-	-
Primary Customer Base	<b>CCP</b>	8,605	7,494	973	136	2	-	-	-
Line Transformer Customer Base	<b>CCLT</b>	8,558	7,494	973	91	-	-	-	-
Secondary Customer Base	<b>CCS</b>	8,600	7,494	973	-	-	2	55	76

**Below in yellow highlight are the changes made to I8 Demand Data Sheet in the Cost Allocation Filing**

	A	B	C	D	E	F	H	J	K	L
52	<b>NON CO INCIDENT PEAK</b>									
54	<b>1 NCP</b>									
55	Classification NCP from Load Data Provider	DNCP1	56,756	18,089	6,506	21,588	10,035	456	12	70
56	Primary NCP	PNCP1	56,218	18,089	6,506	21,588	10,035	-	-	-
57	Line Transformer NCP	LTNCP1	31,985	18,089	6,506	7,390	-	-	-	-
58	Secondary NCP	SNCP1	32,523	18,089	6,506	7,390	-	456	12	70
60	<b>4 NCP</b>									
61	Classification NCP from Load Data Provider	DNCP4	219,229	69,749	24,063	84,751	38,543	1,822	49	252
62	Primary NCP	PNCP4	217,106	69,749	24,063	84,751	38,543	-	-	-
63	Line Transformer NCP	LTNCP4	122,822	69,749	24,063	29,010	-	-	-	-
64	Secondary NCP	SNCP4	124,945	69,749	24,063	29,010	-	1,822	49	252
66	<b>12 NCP</b>									
67	Classification NCP from Load Data Provider	DNCP12	588,030	172,723	62,064	240,663	106,353	5,418	147	662
68	Primary NCP	PNCP12	581,503	172,423	62,064	240,663	106,353	-	-	-
69	Line Transformer NCP	LTNCP12	314,459	172,423	62,064	79,972	-	-	-	-
70	Secondary NCP	SNCP12	320,986	172,723	62,064	79,972	-	5,418	147	662
73	<b>LEGEND</b>									
74	(yellow highlights are changes LUI made to this sheet)									



**Sheet 01 Revenue to Cost Summary Worksheet - Second Run Lakefront Utilities Inc.**

		1	2	3	5	7	8	9	
Rate Base Assets		Total	Residential	GS <50	GS>50-Regular	GS >50-Intermediate	Street Light	Sentinel	Unmetered Scattered Load
<b>crev</b>	Distribution Revenue (sale)	\$3,280,628	\$1,530,605	\$583,891	\$1,066,782	\$66,702	\$8,737	\$1,798	\$22,113
<b>mi</b>	Miscellaneous Revenue (mi)	\$283,457	\$145,820	\$46,085	\$55,748	\$14,766	\$15,859	\$323	\$4,855
<b>Total Revenue</b>		<b>\$3,564,085</b>	<b>\$1,676,425</b>	<b>\$629,976</b>	<b>\$1,122,530</b>	<b>\$81,468</b>	<b>\$24,596</b>	<b>\$2,121</b>	<b>\$26,968</b>
<b>Expenses</b>									
<b>di</b>	Distribution Costs (di)	\$790,986	\$385,781	\$98,644	\$175,798	\$55,180	\$71,973	\$1,470	\$2,140
<b>cu</b>	Customer Related Costs (cu)	\$238,411	\$147,462	\$59,607	\$17,616	\$1,660	\$451	\$0	\$11,614
<b>ad</b>	General and Administration (ad)	\$730,251	\$376,891	\$111,518	\$138,918	\$40,872	\$51,663	\$1,049	\$9,341
<b>dep</b>	Depreciation and Amortization (dep)	\$737,576	\$348,519	\$96,552	\$176,211	\$56,634	\$56,788	\$1,160	\$1,712
<b>INPUT</b>	PIs (INPUT)	\$323,376	\$154,895	\$43,193	\$75,868	\$23,090	\$25,035	\$511	\$783
<b>INT</b>	Interest	\$463,337	\$221,935	\$61,887	\$108,704	\$33,084	\$35,870	\$733	\$1,122
<b>Total Expenses</b>		<b>\$3,283,937</b>	<b>\$1,635,483</b>	<b>\$471,401</b>	<b>\$693,115</b>	<b>\$210,520</b>	<b>\$241,781</b>	<b>\$4,923</b>	<b>\$26,714</b>
<b>Direct Allocation</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>NI</b>	Allocated Net Income (NI)	\$575,176	\$275,506	\$76,826	\$134,943	\$41,070	\$44,529	\$910	\$1,393
<b>Revenue Requirement (includes NI)</b>		<b>\$3,859,113</b>	<b>\$1,910,989</b>	<b>\$548,227</b>	<b>\$828,059</b>	<b>\$251,590</b>	<b>\$286,309</b>	<b>\$5,833</b>	<b>\$28,107</b>
<b>Revenue Requirement Input equals Output</b>									
<b>Rate Base Calculation</b>									
<b>Net Assets</b>									
<b>dp</b>	Distribution Plant - Gross	\$17,386,695	\$8,230,503	\$2,263,574	\$4,128,121	\$1,326,300	\$1,368,785	\$27,957	\$41,456
<b>gp</b>	General Plant - Gross	\$1,078,753	\$523,093	\$145,612	\$248,539	\$72,560	\$84,592	\$1,728	\$2,628
<b>accum dep</b>	Accumulated Depreciation	(\$8,243,777)	(\$3,797,052)	(\$1,029,444)	(\$2,021,640)	(\$711,319)	(\$651,831)	(\$13,313)	(\$19,179)
<b>co</b>	Capital Contribution	(\$573,975)	(\$333,435)	(\$90,651)	(\$92,925)	\$0	(\$54,321)	(\$1,109)	(\$1,533)
<b>Total Net Plant</b>		<b>\$9,647,696</b>	<b>\$4,623,109</b>	<b>\$1,289,092</b>	<b>\$2,262,095</b>	<b>\$687,541</b>	<b>\$747,224</b>	<b>\$15,263</b>	<b>\$23,372</b>
<b>Directly Allocated Net Fixed Assets</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>COP</b>	Cost of Power (COP)	\$19,080,108	\$4,772,651	\$2,349,947	\$8,007,463	\$3,784,269	\$129,437	\$2,699	\$33,642
	OM&A Expenses	\$1,759,648	\$910,133	\$269,768	\$332,332	\$97,712	\$124,087	\$2,520	\$23,096
	Directly Allocated Expenses	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Subtotal</b>		<b>\$20,839,757</b>	<b>\$5,682,784</b>	<b>\$2,619,715</b>	<b>\$8,339,796</b>	<b>\$3,881,981</b>	<b>\$253,524</b>	<b>\$5,219</b>	<b>\$56,738</b>
<b>Working Capital</b>		<b>\$3,125,964</b>	<b>\$852,418</b>	<b>\$392,957</b>	<b>\$1,250,969</b>	<b>\$582,297</b>	<b>\$38,029</b>	<b>\$783</b>	<b>\$8,511</b>
<b>Total Rate Base</b>		<b>\$12,773,659</b>	<b>\$5,475,526</b>	<b>\$1,682,049</b>	<b>\$3,513,064</b>	<b>\$1,269,839</b>	<b>\$785,252</b>	<b>\$16,045</b>	<b>\$31,883</b>
<b>Rate Base Input equals Output</b>									
<b>Equity Component of Rate Base</b>		<b>\$6,386,830</b>	<b>\$2,737,763</b>	<b>\$841,025</b>	<b>\$1,756,532</b>	<b>\$634,919</b>	<b>\$392,626</b>	<b>\$8,023</b>	<b>\$15,941</b>
<b>Net Income on Allocated Assets</b>		<b>\$280,148</b>	<b>\$40,942</b>	<b>\$158,576</b>	<b>\$429,414</b>	<b>(\$129,052)</b>	<b>(\$217,185)</b>	<b>(\$2,802)</b>	<b>\$255</b>
<b>Net Income on Direct Allocation Assets</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Net Income</b>		<b>\$280,148</b>	<b>\$40,942</b>	<b>\$158,576</b>	<b>\$429,414</b>	<b>(\$129,052)</b>	<b>(\$217,185)</b>	<b>(\$2,802)</b>	<b>\$255</b>
<b>RATIOS ANALYSIS</b>									
<b>REVENUE TO EXPENSES %</b>		<b>92.36%</b>	<b>87.73%</b>	<b>114.91%</b>	<b>135.56%</b>	<b>32.38%</b>	<b>8.59%</b>	<b>36.37%</b>	<b>95.95%</b>
<b>EXISTING REVENUE MINUS ALLOCATED COST</b>		<b>(\$295,028)</b>	<b>(\$234,564)</b>	<b>\$81,750</b>	<b>\$294,471</b>	<b>(\$170,122)</b>	<b>(\$261,713)</b>	<b>(\$3,712)</b>	<b>(\$1,139)</b>
<b>RETURN ON EQUITY COMPONENT OF RATE BASE</b>		<b>4.39%</b>	<b>1.50%</b>	<b>18.86%</b>	<b>24.45%</b>	<b>-20.33%</b>	<b>-55.32%</b>	<b>-34.93%</b>	<b>1.60%</b>

**LEGEND:** (yellow highlights are changes LUI made to this sheet)

b) Please confirm that data inputs that are more consistent with the loads actually served through utility-supplied transformers would increase the existing revenue to cost ratio to a value in the range of 35 – 40%. Alternately, if not confirmed, please provide an explanation for the load inputs in the model as filed in the Application.

**LUI's Response:**  
**LUI confirms**

## 8 RATE DESIGN

### 8.1 Ref: Exhibit(s) Appendix E, Sheet O1 'Revenue to Cost Summary Worksheet – Second Run'

Lakefront Utilities Inc.'s Miscellaneous Revenue in the 2006 model is approximately 15% of total revenue. As a result of the default allocation factors used in the cost allocation model, the Miscellaneous Revenue attributed to the Streetlighting class exceeds the Distribution Revenue from the approved rates, with the amounts being \$53,338 allocated Miscellaneous Revenue and \$8737 from approved distribution rates. This makes the revenue to cost ratio much more favourable than it would be in the absence of Miscellaneous Revenue.

Please provide an estimate of the revenue actually derived from specific service charges and any other sources included in Miscellaneous Revenue in 2006, and confirm whether the revenue actually derived from Miscellaneous Revenue was lower than the amount of revenue attributed in the model by the default methodology.

#### LUI's Response:

The total other operating revenue for 2006 is \$298,003.

Specific service revenue	\$103,267
Pole rental	\$ 56,300
Late Payment Charges	\$ 27,565
Interdepartmental Rent	\$ 45,600
Interest on cash in bank	\$ 55,271
Other (gain on disposition of property)	\$ 10,000
Total	\$298,003

The Cost Allocation model (which has 2004 figures) included \$296,000 of interest that inflated the Miscellaneous Revenue amount allocated amount to each customer class. LUI also believe the allocation factor for Street Light may be inaccurate since even with the correct Miscellaneous Revenue total, the allocation to Street Light class would be still too high.

## **8.2 Ref: Exhibit(s) Appendix E / Page 6**

In the Lakefront Utilities Manager's Summary, the opinion is expressed that the cost allocation model applies too heavy weighting to Street Light connections.

a) Please provide an alternative run in which the weighting of Streetlight connections is reduced, for example by decreasing the weighting factor on services to Street Light connections or by simply decreasing the number of connections. Provide a brief narrative description of the altered inputs to the model and the effect on the revenue cost ratio.

### **LUI's Response:**

**Upon changing the number of connections for Street Light in Cell J-36 in Sheet I6 Customer Data in the Cost Allocation filing from 2,693 connections to 2 customers, the revenue to cost ration changed from 12.86% to 83.78% as per the below output O1 Revenue to Cost sheet.**



**LAKEFRONT UTILITIES INC.**

EB-2005-0387 EB-2006-0247

January 15, 2007

**Sheet O1 Revenue to Cost Summary Worksheet - Second Run Lakefront Utilities Inc.**

**Class Revenue, Cost Analysis, and Return on Rate Base**

			1	2	3	5	7	8	9
		Total	Residential	GS <50	GS>50-Regular	GS >50-Intermediate	Street Light	Sentinel	Unmetered Scattered Load
<b>Rate Base Assets</b>									
<b>crev</b>	Distribution Revenue (sale)	\$3,280,628	\$1,530,605	\$583,891	\$1,066,782	\$66,702	\$8,737	\$1,798	\$22,113
<b>mi</b>	Miscellaneous Revenue (mi)	\$578,484	\$284,558	\$94,499	\$112,258	\$56,520	\$1,595	\$8,413	\$20,643
	<b>Total Revenue</b>	<b>\$3,859,112</b>	<b>\$1,815,163</b>	<b>\$678,390</b>	<b>\$1,179,040</b>	<b>\$123,222</b>	<b>\$10,332</b>	<b>\$10,211</b>	<b>\$42,756</b>
	<b>Expenses</b>								
<b>di</b>	Distribution Costs (di)	\$790,986	\$321,509	\$92,234	\$193,141	\$126,851	\$2,471	\$22,942	\$31,839
<b>cu</b>	Customer Related Costs (cu)	\$238,411	\$147,462	\$59,607	\$17,616	\$1,660	\$451	\$0	\$11,614
<b>ad</b>	General and Administration (ad)	\$730,251	\$331,970	\$107,169	\$150,605	\$91,737	\$2,106	\$16,270	\$30,395
<b>dep</b>	Depreciation and Amortization (dep)	\$737,576	\$344,178	\$99,181	\$172,258	\$91,912	\$2,254	\$11,609	\$16,184
<b>INPUT</b>	PILs (INPUT)	\$323,376	\$144,798	\$43,540	\$74,695	\$43,528	\$1,199	\$6,517	\$9,098
<b>INT</b>	Interest	\$463,337	\$207,468	\$62,384	\$107,024	\$62,368	\$1,718	\$9,337	\$13,036
	<b>Total Expenses</b>	<b>\$3,283,937</b>	<b>\$1,497,385</b>	<b>\$464,114</b>	<b>\$715,339</b>	<b>\$418,057</b>	<b>\$10,200</b>	<b>\$66,676</b>	<b>\$112,166</b>
	<b>Direct Allocation</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>NI</b>	Allocated Net Income (NI)	\$575,176	\$257,547	\$77,442	\$132,858	\$77,422	\$2,133	\$11,591	\$16,183
	<b>Revenue Requirement (includes NI)</b>	<b>\$3,859,113</b>	<b>\$1,754,931</b>	<b>\$541,557</b>	<b>\$848,197</b>	<b>\$495,479</b>	<b>\$12,332</b>	<b>\$78,267</b>	<b>\$128,350</b>
	<b>Revenue Requirement Input equals Output</b>								
	<b>Rate Base Calculation</b>								
	<b>Net Assets</b>								
<b>dp</b>	Distribution Plant - Gross	\$17,386,695	\$7,531,586	\$2,234,512	\$4,235,539	\$2,465,765	\$52,208	\$362,569	\$504,517
<b>gp</b>	General Plant - Gross	\$1,078,753	\$455,020	\$141,456	\$255,528	\$158,502	\$4,000	\$26,851	\$37,397
<b>accum dep</b>	Accumulated Depreciation	(\$8,243,777)	(\$3,675,090)	(\$1,035,609)	(\$2,069,822)	(\$1,122,389)	(\$18,307)	(\$134,998)	(\$187,563)
<b>co</b>	Capital Contribution	(\$573,975)	\$0	(\$42,524)	(\$190,849)	(\$199,234)	(\$2,126)	(\$58,460)	(\$80,782)
	<b>Total Net Plant</b>	<b>\$9,647,696</b>	<b>\$4,311,516</b>	<b>\$1,297,835</b>	<b>\$2,230,397</b>	<b>\$1,302,644</b>	<b>\$35,774</b>	<b>\$195,961</b>	<b>\$273,568</b>
	<b>Directly Allocated Net Fixed Assets</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>COP</b>	Cost of Power (COP)	\$19,080,108	\$4,772,651	\$2,349,947	\$8,007,463	\$3,784,269	\$129,437	\$2,699	\$33,642
	OM&A Expenses	\$1,759,648	\$800,940	\$259,010	\$361,361	\$220,248	\$5,029	\$39,212	\$73,848
	Directly Allocated Expenses	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	<b>Subtotal</b>	<b>\$20,839,757</b>	<b>\$5,573,591</b>	<b>\$2,608,957</b>	<b>\$8,368,825</b>	<b>\$4,004,517</b>	<b>\$134,465</b>	<b>\$41,912</b>	<b>\$107,490</b>
	<b>Working Capital</b>	<b>\$3,125,964</b>	<b>\$836,039</b>	<b>\$391,344</b>	<b>\$1,255,324</b>	<b>\$600,678</b>	<b>\$20,170</b>	<b>\$6,287</b>	<b>\$16,123</b>
	<b>Total Rate Base</b>	<b>\$12,773,659</b>	<b>\$5,147,555</b>	<b>\$1,689,179</b>	<b>\$3,485,720</b>	<b>\$1,903,321</b>	<b>\$55,944</b>	<b>\$202,248</b>	<b>\$289,692</b>
	<b>Rate Base Input equals Output</b>								
	<b>Equity Component of Rate Base</b>	<b>\$6,386,830</b>	<b>\$2,573,777</b>	<b>\$844,589</b>	<b>\$1,742,860</b>	<b>\$951,661</b>	<b>\$27,972</b>	<b>\$101,124</b>	<b>\$144,846</b>
	<b>Net Income on Allocated Assets</b>	<b>\$575,175</b>	<b>\$317,778</b>	<b>\$214,276</b>	<b>\$463,700</b>	<b>(\$294,835)</b>	<b>\$132</b>	<b>(\$56,465)</b>	<b>(\$69,411)</b>
	<b>Net Income on Direct Allocation Assets</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
	<b>Net Income</b>	<b>\$575,175</b>	<b>\$317,778</b>	<b>\$214,276</b>	<b>\$463,700</b>	<b>(\$294,835)</b>	<b>\$132</b>	<b>(\$56,465)</b>	<b>(\$69,411)</b>
	<b>RATIOS ANALYSIS</b>								
	REVENUE TO EXPENSES %	100.00%	103.43%	125.27%	139.01%	24.87%	83.78%	13.05%	33.31%
	EXISTING REVENUE MINUS ALLOCATED COSTS	(\$1)	\$60,231	\$136,834	\$330,842	(\$372,258)	(\$2,001)	(\$68,056)	(\$85,594)
	RETURN ON EQUITY COMPONENT OF RATE BASE	9.01%	12.35%	25.37%	26.61%	-30.98%	0.47%	-55.84%	-47.92%

b) Please provide an alternative set of revenue to cost ratios, in which rates and revenues from Street lighting are increased to yield a revenue to cost ratio of 70%, and revenue is decreased by an equal amount from one or more classes that have ratios above 100%. (The alternative model developed in part a) may be used in this exercise.)

**LUI's Response:**

**Using the above output details in the Cost Allocation Sheet O1 Revenue to Cost from Question 8.2a, LUI has determined the following revenue to cost ratios per the below details:**

<b>Customer Class</b>	<b>Proposed Proportion</b>	<b>Outstanding Base Revenue Requirement</b>	<b>Directly Allocated CDM</b>	<b>Base Revenue Requirement</b>	<b>Proposed Revenue/Cost Ratio</b>
<b>Residential</b>	45.50%	\$ 2,121,151	\$ 80,408	\$ 2,201,559	<b>102.09%</b>
<b>GS &lt;50 kW</b>	17.50%	\$ 815,827		\$ 815,827	<b>122.59%</b>
<b>GS &gt;50-2999 kW</b>	25.48%	\$ 1,187,845		\$ 1,187,845	<b>113.97%</b>
<b>GS 3000-4999 kW</b>	8.99%	\$ 419,102		\$ 419,102	<b>68.83%</b>
<b>Street Lights</b>	0.23%	\$ 10,676		\$ 10,676	<b>70.45%</b>
<b>Sentinel Lights</b>	0.30%	\$ 13,986		\$ 13,986	<b>14.55%</b>
<b>Unmetered Scatered Load</b>	2.00%	\$ 93,237		\$ 93,237	<b>59.11%</b>
	<b>100.00%</b>	<b>\$ 4,661,871</b>	<b>\$ 80,408</b>	<b>\$ 4,742,232</b>	

**8.3 Ref: Exhibit(s) Exhibit 8/Tab 1/Schedule 2/page 5, and Exhibit 9 / Tab 1 / Schedule 7 / page 3**

Based on the re-examination of the allocation of transformer costs in a previous Interrogatory 6.3, please describe any change that would be indicated to the proposed rates for the Intermediate Class.

**LUI's Response:**

**If LUI were to make the changes proposed in Interrogatory 7.3, the below table is the resulting revenue allocation percentages output in the fourth column titled "Rate Application."**

**This would produce a fix charge of \$1,774.39 and a volumetric charge (without Regulatory Asset) of \$1.7334 per kW.**

**8.4 Ref: Exhibit(s) Appendix E, Manager’s Summary, page 6**

The Lakefront Utilities Manager’s Summary points out that the cost allocation model does not reflect the fact that all customers classes benefit from street lighting.

a) Is Lakefront Utilities able to provide a reference to a policy or precedent that indicates that the revenue to cost ratio of the streetlight class (or any class) should be influenced by the benefit of the use to which the electricity is put? If so, please provide the reference or a brief description of it.

**LUI’s Response:**

**No, what was implied by this statement was the number of customers should be considered rather than the number of connections for this customer class.**

b) Please provide calculations of an alternative Streetlighting rate that would yield a revenue to cost ratio of 70%.

**LUI’s Response:**

**Please refer to response to Question 8.2b**

**8.5 Ref: Exhibit(s) Exhibit 9/Tab 1/Schedule 1**

In addition to the previous interrogatories, please describe any adjustments that you would make to the proposed rates in order to implement the policies in the Board Report on the Application of Cost allocation for Electricity Distributors, EB-2007-0667, November 28, 2007

**LUI's Response:**

**LUI has no further proposed adjustments at this time.**

## **9 LOSS FACTORS**

### **9.1 Ref: Exhibit(s) Exhibit 4, Tab 2, Schedule 9**

#### **Exhibit 9, Tab 1, Schedule 6, Pages 1 and 2**

a) Included in the Loss Adjustment Factor Calculation is a row titled "Unbilled kWh". Please provide an explanation for this as it is not a standard item in Schedule 10-5 of the 2006 EDR Handbook.

#### **LUI's Response:**

**The kWh are reported by month billed rather than month consumed. By doing this, LUI account for consumption on the bills invoiced in January and February that apply to November and December. In light of this confusion, LUI should have reconciled the data to present energy consumed in the related month. We will make the change for reporting purposes in the future.**

b) The actual Distribution Loss Adjustment Factor shown in row H is 4.43%, 4.99% and 5.40% respectively for 2004, 2005 and 2006. Please provide an explanation for this increase.

#### **LUI's Response:**

**LUI has included additional calculations values for 2002 and 2003 to support the response to Question 9.1b. The loss factor is a calculated number that is used to estimate the system losses between the utilities point of supply and our customer's electric meters. The actual losses are function of the system voltage and the load characteristics of our customers. As can be seen by comparing the 2002/2003 loss factors with 2004 to 2006 loss factors, the values vary but they do not increase over the larger timeframe. With an increased residential load (at a low utilization voltage) there may in fact be an increase in loss factor. Over time our loss factor will drop. The power variance account indicates that we are not collecting enough at the present time to cover the actual losses, therefore the loss factor should increase to compensate.**

	<u>2002</u>	<u>2003</u>
A "Wholesale" kWh (IESO)	281,232,415	289,976,577
B Wholesale kWh for Large Use customer(s) (IESO)	-	-
C Net "Wholesale" kWh (A)-(B)	<u>281,232,415</u>	<u>289,976,577</u>
D Retail kWh (Distributor) Unbilled kWh	268,295,724	274,880,362
E Retail kWh for Large Use Customer(s) (1% loss)		
F Net "Retail" kWh (D)-(E)	<u>268,295,724</u>	<u>274,880,362</u>
G Loss Factor [(C)/(F)]	0.0482	0.0549
H Distribution Loss Adjustment Factor	<b>0.0482</b>	<b>0.0549</b>
<u>Total Utility Loss Adjustment Factor</u>		
Supply Facility Loss Factor	<u>LAF</u> 1.0045	
Total Loss Factor		
Secondary Metered Customer		
Total Loss Factor - Secondary Metered Customer < 5,000kW	1.0529	1.0597
Total Loss Factor - Secondary Metered Customer > 5,000kW	n/a	
Primary Metered Customer		
Total Loss Factor - Primary Metered Customer < 5,000kW	1.0424	1.0491
Total Loss Factor - Primary Metered Customer > 5,000kW	n/a	

c) The proposed Distribution Loss Adjustment Factor for 2008 is 4.94% (based on the average of 2004 to 2006), a Supply Facilities Loss Factor is 1.0045 and a Total Loss Factors are 1.0541 for secondary metered customers and 1.0436 for primary metered customers.

i Please provide a rationale for proposing that the 2008 Distribution Loss Adjustment Factor be an average of the factors for 2004-2006 rather than the lower 2004 factor of 4.43%.

**LUI's Response:**

**LUI used the last three years historical average based on precedent in establishing Loss Factors in previous EDRs and is a good representation of customer usage patterns which has an important impact on the loss factor value. As LUI expands its voltage conversion project, greater savings will be realized by our customers and they will be reflected in the calculated loss factor at the next rate setting. The power variance account indicates that we are not collecting enough time to cover the actual losses, therefore the loss factor should increase to compensate.**

ii On Exhibit 9, Tab 1, Schedule 6, Pages 1 and 2 the proposed Distribution Loss Adjustment Factor is 1.0541, which is in contradiction to Exhibit 4/Tab 2/Schedule 9 which provides a Distribution Loss Adjustment Factor of 1.0541 for secondary metered customers. Please explain the apparent discrepancy.

**LUI's Response:**

**The description in Exhibit 9, Tab 1, Schedule 6, Pages 1 and 2 should in fact be called a Total Loss Factor rather than Distribution Loss Factor.**

d) Given that Lakefront Utilities is embedded in the Hydro One Networks Inc. (HONI) distribution system, please confirm that the Distribution Loss Adjustment Factor values provided include losses that occur in the HONI distribution system.

**LUI's Response:**

**LUI's loss factor does not include HONI loss factor.**

i If this is correct, please provide a breakdown of losses that occur in the Lakefront Utilities and HONI distribution systems.

**LUI's Response:**

**Not Applicable**

ii If this is not correct, please confirm if losses that occur in the HONI distribution system are included in the Supply Facility Loss Factor and provide a breakdown by separating out the HONI losses.

**LUI's Response:**

**The Supply Facility Loss Factor does not include HONI distribution system losses.**

e) Lakefront Utilities is applying for rebased rates with associated loss factors for ongoing purposes in a forecast test year application. Please explain how the CDM initiative to reduce loss factors has been applied in establishing losses for 2008 and going forward. If this initiative has not been reflected in the loss factors, please indicate what the impact of the initiative would be and why it was not applied to the forecasted loss factor.

**LUI's Response:**

**LUI used the last three years historical average based on precedent in establishing Loss Factors in previous EDRs and is a good representation of customer usage patterns which has an important impact on the loss factor value. As LUI expands its voltage conversion project, greater savings will be realized by our customers and they will be reflected in the calculated loss factor at the next rate setting.**

# 10 DEFERRAL & VARIANCE ACCOUNTS.

10.1 Ref: Exhibit(s) Exhibit 1/Tab2/Schedule1/Page5

Exhibit 1/Tab/1/Sch7/Page1,  
Exhibit 1/Tab3/Sch3/Page1, and  
Ex5/Tab1/Sch3/Page 1

Lakefront Utilities stated that there was a significant error in smart metering in 2007 which impacted three areas: system loss factor, the overbilling of customers and the variance accounts.

a) Please quantify this impact for 2004, 2005, 2006, and 2007 on the three areas above.

## LUI's Response:

Below is the Interval metering error dollar amount impacts by RSVA accounts affected by this overbilling to the one customer (Horizons Plastics). Table 1 has the amounts per year up to December 31, 2006. Please note, any adjustments for RSVA amounts for 2007 will be dealt with in future Applications as RSVA variance disbursement in the 2008 Application only covers up to December 31, 2006.

Table 1

RSVA		TOTAL	Summary of Years		
			2004	2005	2006
1588	Cost of Power	\$ 732,006	\$ 124,478	\$ 268,871	\$ 338,657
1580	Wholesale Market Service	\$ 84,863	\$ 16,031	\$ 24,200	\$ 44,632
1550	Low Voltage Charges	\$ 2,999	\$ 1,218	\$ 1,079	\$ 702
1584	Transmission Network	\$ 56,425	\$ 7,780	\$ 16,880	\$ 31,764
1586	Transmission Connection	\$ 51,059	\$ 6,399	\$ 16,912	\$ 27,748

2007 Values are as follows:

1588 - \$204,314

1580 - \$ 25,936

1550 - \$ 1,230

1584 - \$ 20,820

1586 - \$ 16,598

The overbilling resulted in the appearance of a lower losses than was actually the case. The calculation of losses in this Rate Application has taken this into account and corrected the loss factor on a go forward basis; i.e. Exhibit 4, Tab 2, Schedule 9, page 1, line D (Retail kWh (Distributor) has been adjusted by accounting for the overbilled kWh for this customer.

b) Please state regulatory precedent that would allow Lakefront Utilities to include the interest shortfall of \$16,970 in account 1588 calculation.

**LUI's Response: (Ogilvy)**

**Interest of \$16,970 is included in the \$48,170 per Exhibit 5, Tab 1, Schedule 3, to bring the Dec/31/06 balance for RSVA account 1588 to \$1,103,634. The \$16,970 is the difference in interest that LUI paid to Horizon (\$90,980 {based on bank monthly prime per Retail Settlement Code Section 7.7 Billing Errors} and \$74,010 {the calculated interest improvement rate of 4.59 set by the OEB}).**

**As indicated at Exhibit 1, Tab 1, Schedule 7, Page 1, the impact of the loss factor issue caused a decrease in LUI's unaccounted for energy, which in turn resulted in decreased loss factors to LUI's other customers. Therefore, LUI's other customers were under-billed and enjoyed the benefit of earning interest on their retained under-billed amounts. If these customers are permitted to retain the interest on under-billed amounts (i.e. if the \$16,970 were not included in account 1588), they will be unjustly enriched at LUI's expense. Unjust enrichment is a common law principle that applies in the regulatory context.**

**This issue is a legal matter that is more appropriately dealt with in final submissions. LUI reserves its rights to elaborate and expand on this issue in final submissions.**

c) What is Lakefront Utilities' plan to correct this error?

**LUI's Response:**

**The error was a wrong meter multiplier which was corrected in July, 2007 and the recalculation of the bills, as approved by Measurement Canada, resulted in a repayment of the overbilled amounts including interest to the customer. The RVSA accounts associated with this issue was adjusted including Cost of Power, Wholesale Market Service, Low Voltage Charges, Transmission Connection and Transmission Network Charges.**

d) Is Lakefront Utilities still billing Horizon Plastics with the error?

**LUI's Response:**

**See response to question 10.1 c**

e) Has Lakefront Utilities refunded the money to Horizon Plastics? What is the amount to be refunded? What will be the journal entries to account for the refund?

**LUI's Response:**

**Please see table below**

Lakefront Utilities has refunded the money to Horizon Plastics on July 27, 2007 in the amount of \$1,428,792.20

<b>JOURNAL ENTRY - JULY 2007</b>			
<b>USoA</b>	<b>USoA</b>		
<b>Account</b>	<b>Description</b>	<b>DR</b>	<b>CR</b>
<b>1588</b>	RSVA - Power**	942,099.45	
<b>1580</b>	RSVA - WMS	110,798.56	
<b>2250</b>	DRC	119,248.91	
<b>4080</b>	Distribution - Volumetric	12,158.03	
<b>1584</b>	RSVA - Network	76,244.51	
<b>1586</b>	RSVA - Connection	67,656.61	
<b>4080</b>	Transformer Ownership Credit		22,001.97
<b>2223</b>	OPG Rebates*		50,866.04
<b>2290</b>	G.S.T.	82,474.03	
<b>6035</b>	Interest Expense	90,980.12	
<b>5665</b>	Suspense off-set		1,428,792.20
		<u><b>1,501,660.22</b></u>	<u><b>1,501,660.21</b></u>

\*\* Includes COP and Provincial Benefit

\* OPG Rebate was returned to the IESO Form 1556 - Sep 2007

f) On Ex1/Tab3/Sch3/Pg1 for 2006 there are numbers impacting the “adjustment for incorrect Horizon Plastics billing, error adjusted”.

1. Please provide a breakdown of the “adjustment for incorrect Horizon Plastics billing, error adjusted” for 2004, 2005, 2006, 2007 and beyond for each applicable account – income statement accounts and RSVAs.

**LUI’s Response:**

The reconciliation in Exhibit 1/ Tab 3/ Schedule 3/ Page 1 was produced in error. This Schedule should have indicated a NIL reconciliation. There was no difference between the 2006 Audited Financial Statements and the 2006 Historical data used for the 2008 Rate Application. Please disregard Exhibit 1/ Tab 3/ Schedule 3/ Page 1.

The following table provides the summarized journal entry and the adjustments for the years 2004 – 2007 for the income statement accounts and the RSVAs relating to the billing error for Horizon Plastics:

		<b>Horizon Plastics</b>				
		838 Darcy Street				
		205427				
		GS 3000-4999 kW				
		763510				
			<b>Summary of Years</b>			
<b>Totals</b>	<b>G/L #</b>	<b>Kwh</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>
98,283,737		Billed uplifted kWh:	23,138,249.60	25,511,563.70	32,234,652.55	17,399,271.44
80,413,001		Correct uplifted kWh:	20,552,584.21	21,608,374.01	25,035,946.75	13,216,096.50
17,870,736		<b>Difference</b>	<b>2,585,665.39</b>	<b>3,903,189.68</b>	<b>7,198,705.80</b>	<b>4,183,174.94</b>
\$5,203,224.17		Billed Cost of Power:	1,116,759.66	1,717,080.12	1,522,082.65	\$ 847,301.74
\$4,266,903.81		Correct Cost of Power:	992,281.32	1,448,209.30	1,183,425.83	\$ 642,987.36
\$936,320.36	1588	<b>Difference</b>	<b>124,478.34</b>	<b>268,870.82</b>	<b>338,656.82</b>	<b>\$ 204,314.38</b>
\$609,359.17		Billed Wholesale Charge:	143,457.15	158,171.69	199,854.85	\$ 107,875.48
\$498,560.61		Correct Wholesale Charge:	127,426.02	133,971.92	155,222.87	\$ 81,939.80
\$110,798.56	1580	<b>Difference</b>	<b>16,031.13</b>	<b>24,199.78</b>	<b>44,631.98</b>	<b>\$ 25,935.68</b>
\$655,566.08		Billed Debt Retirement	154,122.89	169,931.44	215,195.35	\$ 116,316.40
\$536,317.17		Correct Debt Retirement	136,899.89	143,932.46	167,133.51	\$ 88,351.33
\$119,248.91	2250	<b>Difference</b>	<b>17,223.01</b>	<b>25,998.98</b>	<b>48,061.85</b>	<b>\$ 27,965.07</b>
(\$2,300.24)		Billed Provincial Benefit	0.00	-119,144.85	59,834.02	\$ 57,010.60
(\$8,079.33)		Correct Provincial Benefit	0.00	-93,487.31	50,546.49	\$ 34,861.50
\$5,779.09	1588	<b>Difference</b>	<b>0.00</b>	<b>-25,657.54</b>	<b>9,287.53</b>	<b>\$ 22,149.10</b>
\$119,261.39		Billed Distribution Volumetric Rate	70,588.38	32,992.19	11,179.57	\$ 4,501.25
\$107,103.36		Correct Distribution Volumetric Rate	66,151.19	29,060.44	8,620.30	\$ 3,271.43
\$12,158.03	4080	<b>Difference</b>	<b>4,437.19</b>	<b>3,931.75</b>	<b>2,559.27</b>	<b>\$ 1,229.82</b>
\$435,118.52		Billed Network Service	102,700.50	122,745.13	137,138.31	\$ 72,534.59
\$358,874.01		Correct Network Service	94,920.81	105,864.66	105,373.85	\$ 52,714.69
\$76,244.51	1584	<b>Difference</b>	<b>7,779.69</b>	<b>16,880.47</b>	<b>31,764.46</b>	<b>\$ 19,819.89</b>
\$379,190.85		Billed Line & Transformation Costs	90,609.10	110,128.01	117,711.01	\$ 60,742.72
\$311,534.24		Correct Line & Transformation Costs	84,209.93	93,216.37	89,963.01	\$ 44,144.93
\$67,656.61	1586	<b>Difference</b>	<b>6,399.18</b>	<b>16,911.64</b>	<b>27,748.00</b>	<b>\$ 16,597.80</b>
(\$121,305.56)		Billed Transformer Ownership Credits	-27,280.16	-33,434.60	-39,189.95	-\$ 21,400.84
(\$99,303.59)		Correct Transformer Ownership Credits	-25,565.93	-28,300.27	-29,884.27	-\$ 15,553.12
(\$22,001.97)	4080	<b>Difference</b>	<b>-1,714.22</b>	<b>-5,134.33</b>	<b>-9,305.69</b>	<b>-\$ 5,847.73</b>
(\$361,557.43)		OPG Rebates Originally Calculated	-53,059.07	-153,782.04	-145,546.10	-\$ 9,170.22
(\$310,691.39)		OPG Correct Rebates	-46,828.71	-137,537.85	-119,352.12	-\$ 6,972.71
(\$50,866.04)	2223	<b>Difference</b>	<b>-6,230.36</b>	<b>-16,244.19</b>	<b>-26,193.98</b>	<b>-\$ 2,197.51</b>
\$466,421.30		Billed G.S.T	112,862.97	141,435.55	137,261.46	\$ 74,861.31
\$383,947.27		Correct G.S.T.	101,074.86	119,752.64	106,856.46	\$ 56,263.32
\$82,474.03	2290	<b>Difference</b>	<b>11,788.12</b>	<b>21,682.91</b>	<b>30,405.00</b>	<b>\$ 18,597.99</b>
\$1,337,812.08		<b>:Total:</b>	<b>\$ 180,192.06</b>	<b>\$ 331,440.29</b>	<b>\$ 497,615.24</b>	<b>\$ 328,564.50</b>
				<b>Total of Years:</b>	<b>\$ 1,337,812.08</b>	
			<b>Financial Summary:</b>			
		Total of Years (Inc. Rebate)	\$	1,337,812.08		
		Total Interest Earned:	\$	90,980.12		
		Total:	\$	1,428,792.20		

**The summarized journal entry is provided in the response to Question 10.1e**

2. Does this adjustment impact the December 31, 2006 balances in RSVAs being requested for disposition on Ex5/Tab1/Sch3/Pg1?

**LUI's Response:**

**Yes, these adjustments are incorporated in the balances in Exhibit 5 /Tab1 / Schedule 3/ Page 1**

i If so, please provide the dollar impact on each RSVA for each calendar year.

**LUI's Response:**

**Please refer to LUI response to Question 10.1 a**

ii If so, please state the regulatory precedent for allowance of retroactive ratemaking with adjustments relating to prior periods?

**LUI's Response:**

**LUI's proposal does not amount to retroactive ratemaking. Rather, LUI is correcting a billing error whereby customers were under-billed. LUI's proposal is consistent with section 7.7 of the Retail Settlement Code.**

3. Why are the power expense accounts being credited if this is an adjustment of a billing error?

**LUI's Response:**

**Please refer to LUI's response to Question 10.1 f. The power expense account has not been credited for this billing error adjustment.**

## **10.2 Ref: Exhibit(s) Exhibit 5/Tab1/Schedule1/Page7**

Lakefront Utilities is requesting a new deferral and variance account for the Late Payment Class Action Suit.

a) What is the regulatory precedent for the collection of these costs in this proposed deferral account?

### **LUI's Response:**

There is a proceeding currently before the Ontario Energy Board File No. (EB-2007-0731) dealing with Enbridge Gas Distribution Inc. application for the recovery of class action suit deferral accounts.

In any event, LUI is not aware of a precedent that would preclude the Board from establishing a variance account in this circumstance. A variance account is simply an accounting tool that has no impact on a Board's discretion to allow or disallow any variances recorded.

b) What is the justification for this account?

### **LUI's Response:**

A class action claiming \$500 million in restitution payment plus interest was served on Toronto Hydro on November 18, 1998. The action was initiated against Toronto Hydro Electric Commission as the representative of the defendant class consisting of all electricity distributors in Ontario which have charged late payment charges on overdue bills at any time after April 1, 1981.

The claim is that late payment penalties result in electricity distributors receiving interest at effect rates in excess of 60% per year, which is illegal under section 347(1)(b) of the Criminal Code.

LUI understands that the Electrical Distribution Association will then undertake the defence of this action. Assuming a claim on Toronto is allowed, LUI would be liable for any claim that relates to late payment charges paid by LUI customers.

It is LUI's understanding this class action suit was put on hold pending the outcome of a similar claim made on Enbridge Gas Distribution. Since the matter with Enbridge has been completed and a claim has been made it is expected the Toronto Hydro matter will reconvene and most likely a claim will be accessed.

It is expected the Toronto Hydro matter will be addressed before the next rebasing year. As a result, LUI is requesting a deferral account to record any claim and costs that LUI would incur assuming the claim on Toronto Hydro is allowed.

**LUI may be exposed to expenses related to this class action suit as our customers receive benefit of this in reduced utility costs because we offset our revenue requirements by the late payment charges. If costs are awarded, they should be passed on to customers who benefited. In order to capture these expenses for recovery, an RSVA account is required.**

c) What are the journal entries to be recorded?

**LUI's Response:**

**LUI would debit a deferral account and credit a corresponding liability account the costs that are awarded in the class action suit by the Courts**

d) When does Lakefront Utilities plan to ask for its disposition?

**LUI's Response:**

**The disposition of these amounts will be included in the next rebasing.**

e) How does Lakefront Utilities plan to allocate this amount by rate class?

**LUI's Response:**

**Depending on the judgement LUI plans to allocate this amount to each rate class based on the level of benefit each rate class will receive as a result of a lower late payment charges to them. However, this may change at the time the proposal to dispose of the deferral account is developed as experience may indicate a better allocator would be more appropriate.**

f) Since the costs or fees are not known, what would be the basis of the approval to record these amounts in a deferral account?

**LUI's Response:**

**Depending on the costs awarded in the class action suit by the Courts the basis of the approval to record costs associated with the claim discussed in b) in a deferral account is that these costs have been reasonably incurred in the normal course of business. The fairness and reasonableness of the costs can be tested when they are proposed to be recovered in rates.**

g) What new or additional information is available that would improve the Board's ability to make a decision to approve the recording of these costs or fees in a deferral account?

**LUI's Response:**

**There is no new information that LUI is aware of at this time.**

**10.3 Ref: Exhibit(s) Exhibit 5/Tab1/Schedule1/Page7**

Lakefront Utilities is also requesting a new deferral and variance account for Meter Data Management Repository Account (MDMR).

a) What is the regulatory precedent for the collection of these MDMR costs in this proposed deferral account?

**LUI's Response:**

**LUI is not aware of a precedent that would preclude the Board from establishing a deferral or variance account in this circumstance. As stated above, deferral and variance accounts are simply accounting tools that have no impact on a Board's discretion to allow or disallow any variances or deferred amounts recorded.**

b) What is the justification for this account?

**LUI's Response:**

**LUI has not included MDMR projected costs in our projected operating expenses. Since rates will be in effect for 3 years, as a result of the multi-year rebasing process, a mechanism is required to record and subsequently recover these indeterminate costs**

c) What are the journal entries to be recorded?

**LUI's Response:**

**LUI expects to follow the same process with this deferral account as with other Deferral accounts currently in use.**

d) When does Lakefront Utilities plan to ask for its disposition?

**LUI's Response:**

**LUI plans to ask for disposition at the time of the next rebasing or when there is a mechanism available to dispose of deferral account balances through the IRM process**

e) How does Lakefront Utilities plan to allocate this amount by rate class?

**LUI's Response:**

**Allocation is an issue that can be addressed at future proceeding if and when LUI applies to disburse any balances recorded**

f) Since the costs or fees are not known, what would be the basis of the approval to record these amounts in a deferral account?

**LUI's Response:**

**The OEB has provided deferral and variance accounts in the past to record costs such as; undefined transition cost amounts. LUI perceives this to be very similar to the process used to record market-opening transition costs.**

g) What new or additional information is available that would improve the Board's ability to make a decision to approve the recording of these costs or fees in a deferral account?

**LUI's Response:**

**None available**

**10.4 Ref: Exhibit(s) Exhibit 5/Tab1/Schedule1/Page7**

Lakefront Utilities is requesting a deferral account to track future capital projects.

a) What is the regulatory precedent for the collection of these costs in this proposed deferral account?

**LUI's Response:**

**Please refer to LUI's response to Question 10.4 (b) below**

b) What is the justification for this account?

**LUI's Response:**

**In the OEB's Filing Requirements for Transmission and Distribution Applications dated November 14, 2006, Page 7, Section 2.0 Preamble Framework, last paragraph it states**

***"For the distributors, recognizing that rebasing may occur every three years, a distributor may consider applying for deferral accounts for capital works during the non-rebasing years to collect the cost of construction."***

**Based on the above reference it is LUI's view the requested deferral is justified since it has been suggested in the filing requirements and it is a reasonable approach to address the cost associated with capital that occurs in a non-rebasing year. In the absence of such deferral accounts, LDCs such as LUI are more likely to apply for rebasing sooner than 3 years.**

c) What are the types of capital expenditures to be recorded in this account?

**LUI's Response:**

**LUI continually monitors the condition of its assets. Based on experience, LUI expects to replace aging assets while at the same time is expected to meet the demands of the customer. In doing so, there will certainly be capital investments required that have to be recovered in future years.**

d) What are the journal entries to be recorded?

**LUI's Response:**

**LUI expects to follow the same process with this deferral account as with other deferral accounts currently in use.**

e) How will these capital expenditures be financed?

**LUI's Response:**

**Depending on the magnitude of these capital expenditures, they may require third party financing.**

f) When does Lakefront Utilities plan to ask for its disposition?

**LUI's Response:**

**LUI plans to ask for disposition at the time of the next rebasing or when there is a mechanism available to dispose of deferral account balances through the IRM process.**

g) How does Lakefront Utilities plan to allocate this amount by rate class?

**LUI's Response:**

**At this time, LUI plans to allocate this amount to each rate class based on the proportion of rate class distribution revenue. However, this may change at the time the proposal to dispose of the deferral account is developed as experience may indicate a better allocator would be more appropriate.**

h) Lakefront Utilities has identified new capital spending for the 2008 test year. If Lakefront Utilities under-forecast or over-forecast the 2008 capital costs, is Lakefront Utilities proposing to record the difference in this deferral account? If not, please explain the rationale for not doing this?

**LUI's Response:**

**LUI expects to record any under-forecast or over-forecast of 2008 capital costs in this deferral account.**

i) Please confirm whether Lakefront Utilities will record the total capital costs in this account or just the amounts related to the annual cost of service associated with the new assets (i.e. depreciation, return, PILs, etc.). If the latter, please provide an example showing all the relevant calculations and amounts. If the former, is Lakefront Utilities proposing to recover the total capital costs outside of rate base in the future (i.e. via a future rate rider), and therefore these amounts will not be included in rate base in the future?

**LUI's Response:**

**LUI will record the annual cost of service associated with the new assets in this account. The cost items to be included will be depreciation and return but not PILs as the process to calculate incremental PILs on incremental capital assets is difficult and could be very controversial at the time of disposition. Depreciation will be calculated as the approved depreciation rate times the new assets. The return will be the value of assets minus accumulated depreciation on the new assets times the approved rate of return.**

**10.5 Ref: Exhibit(s) Exhibit 5/Tab1/Schedule1/Pg7  
Exhibit 1/Tab1/Schedule7/Pg1**

Lakefront Utilities stated that the inclusion of \$296,000 interest of transition costs (1570) as a revenue offset requirement in the 2006 EDR should not have been included in the revenue offset for rate setting purposes. This has resulted in an under-recovery of transition costs and Lakefront Utilities is requesting the Board to allow transition cost recovery to continue until the approved recovery amount is achieved.

a) Was the \$296,000 interest for transition costs included in Account 1590 when the transfer was made to debit 1590 and credit 1570, upon approval of 2006 EDR regulatory assets?

**LUI's Response:**

**Yes**

b) Is Lakefront Utilities seeking special disposition for the \$296,000 amount?

**LUI's Response:**

**The Board approved LUI's transition cost carrying charges (i.e. \$296,000) in its Decision With Reasons dated April 26, 2006 (RP-2005-0020/EB-2005-0011). As part of the 2006 EDR process (a separate proceeding), the Board approved a transition rate adder for LUI.**

**However, a consequence of the 2006 EDR process was that all interest earned was treated as offsetting revenue. The effect of this circumstance is that LUI has not been able to recover the carrying charges that were approved by the Board in RP-2005-0020/EB-2005-0011.**

**Because LUI's current Board approved transition cost rate adder was designed to recover the \$296,000 carrying charge, LUI has requested that the Board leave the rate adder in place long enough to accomplish its Board approved purpose.**

i If so, what is the regulatory precedent for this request?

**LUI's Response:**

**LUI is unaware of any regulatory precedent that would prevent the recovery of a Board approved amount with a rate adder.**

ii If so, is the request for disposition through the revenue requirement or through a rate rider?

**LUI's Response:**

**Please refer to response to question 10.5 b above**

**10.6 Ref: Exhibit(s) Exhibit 5/Tab1/Schedule 3/Page1**

Lakefront Utilities is requesting for disposition of regulatory variance accounts in Exhibit 5/Tab1/Schedule 3/Page1. Most of the totals do not agree to totals reported to the Board under S.2.1.1 of the Reporting and Record Keeping Requirements for the period ending December 31, 2006. Please provide the information as shown in the attached continuity schedule for regulatory assets and provide a further schedule reconciling the continuity schedule with the amounts requested for disposition on Ex5/Tab1/Sch3/Pg1. Please note that forecasting principal transactions beyond December 31, 2006 and the accrued interest on these forecasted balances and including them in the attached continuity schedule is optional.

**LUI's Response:**

**Below is a copy of the continuity schedule including Ac#1555 which Exhibit 5, Tab 1, Schedule 3 Page 1 does not include as LUI is not requesting disposition of this account at this time.**

**The information we provided for regulatory assets ties into the amounts requested for disposition on Exhibit 5 / Tab1 / Schedule 3 / Pg1.**

**SHEET 1 - Regulatory Assets - Continuity Schedule**

NAME OF UTILITY	Lakefront Utilities Inc.	LICENCE NUMBER	ED-2002-0545
NAME OF CONTACT	Dereck Paul	DOCID NUMBER	EB-2007-0761
E-mail Address	dpaul@lusi.on.ca		
VERSION NUMBER		PHONE NUMBER	905-372-2193
Date	16-Jan-08	(extension)	

Account Description	Account Number	2005					2006					Transfer of Board-approved amounts to 1590 as per 2006 EDR		
		Opening Principal Amounts as of Jan-1-05	Transactions (additions) during 2005, excluding interest and adjustments	Transactions (reductions) during 2005, excluding interest and adjustments	Adjustments during 2005 - instructed by Board	Adjustments during 2005 - other	Closing Principal Balance as of Dec-31-05	Opening Interest Amounts as of Jan-1-05	Interest Jan-1 to Dec-31-05	Closing Interest Amounts as of Dec-31-05	Opening Principal Amounts as of Jan-1-06		Transactions (additions) during 2006, excluding interest and adjustments	Transactions (reductions) during 2006, excluding interest and adjustments
Other Regulatory Assets OEB cost assessment	1508		\$ 66,443					\$ 1,783	\$ 1,783	\$ 66,443	\$ 33,614	\$ (54,814)		
OMERS pension	1508		\$ 50,522					\$ 859	\$ 859	\$ 50,522	\$ 19,147			
other	1508													
Retail Cost Variance Account - Retail	1518	\$ 39,165	\$ 20,040	\$ (12,096)		\$ 47,109	\$ 2,839	\$ 2,839	\$ 47,109	\$ 20,040	\$ (9,183)			\$ (39,165)
Retail Cost Variance Account - STR	1548	\$ 4,357	\$ 12,067	\$ (1,741)	\$ (2,732)	\$ 11,952		\$ -	\$ 11,952	\$ 10,710	\$ (347)			
LV Variance	1550										\$ 83,188			\$ 2,998
Smart Meter Capital Variance - Recoveries	1555										\$ (16,040)			
Deferred Payments in Lieu of Taxes	1562	\$ 32,840	\$ (118,084)			\$ (85,244)	\$ (2,696)	\$ (2,696)	\$ (85,244)	\$ (17,268)				
PLS Contra Account	1563	\$ (32,840)	\$ 118,084			\$ 85,244	\$ 2,696	\$ 2,696	\$ 85,244	\$ 17,268				
CDM Expenditures and Recoveries	1565	\$ 6,654	\$ 67,351	\$ (138,073)		\$ (64,068)		\$ -	\$ (64,068)	\$ 69,346	\$ (27,614)			
CDM Contra	1566	\$ -	\$ 138,073	\$ (74,005)		\$ 64,068		\$ -	\$ 64,068	\$ 27,614	\$ (69,346)			
Qualifying Transition Costs	1570	\$ 1,140,290			\$ (321,141)	\$ 819,149	\$ 207,107	\$ 71,286	\$ 278,393	\$ 819,149				\$ (819,419)
Pre-Market Opening Energy Variances	1571	\$ 882,945			\$ 313,403	\$ 1,196,348	\$ 170,703	\$ 82,117	\$ 252,820	\$ 1,196,348				\$ (1,196,348)
RSVA - Wholesale Market Service Charge	1580	\$ 364,734	\$ 167,894			\$ 532,628	\$ 64,403	\$ 26,443	\$ 90,846	\$ 532,628	\$ (418,144)			\$ (88,543)
RSVA - One-time Wholesale Market Service	1582	\$ 78,613	\$ 15,555			\$ 94,168	\$ 7,538	\$ 5,699	\$ 13,237	\$ 94,168	\$ (333)			\$ (78,613)
RSVA - Retail Transmission Network Charge	1584	\$ (35,558)	\$ (264,167)			\$ (299,725)	\$ 5,745	\$ (2,578)	\$ 3,167	\$ (299,725)	\$ (47,937)			\$ 56,424
RSVA - Retail Transmission Connection Charge	1586	\$ (115,520)	\$ 275,326			\$ 159,806	\$ (1,902)	\$ (8,375)	\$ (10,277)	\$ 159,806	\$ 27,595			\$ 51,059
RSVA - Power including global adjustment	1588	\$ (404,603)	\$ 385,512			\$ (19,091)	\$ 29,921	\$ (29,334)	\$ 587	\$ (19,091)	\$ (45,682)			\$ 715,636
RSVA - Power sub-account global adjustment	1588	\$ -	\$ (2,837,213)			\$ (2,837,213)			\$ -	\$ (2,837,213)				
Recovery of Regulatory Asset Balances	1590	\$ (2,328,344)	\$ (827,727)		\$ 1,863,925	\$ (1,292,146)	\$ -	\$ 226,928	\$ 226,928	\$ (1,292,146)		\$ (651,913)		\$ (266,035)

U:\2008 RATE APPLICATION\Interrogatories\OEB 10.6 E5 2008-regulatoryasset\_recoveryworksheet\_v8\_20071024.xls\Continuity Schedule

1 Global adjustment is included in power total above

2 The figure of \$1,325,173 for Ac#1590, does not include recoveries of approximately \$726,174 LUI anticipate collecting between Dec/31/06 to Apr/30/08 due to existing Reg Asset Rate Rider

**SHEET 1 - Regulatory Assets - Continuity Schedule**

NAME OF UTILITY **Lakefront Utilities Inc.**  
 NAME OF CONTACT **Dereck Paul**  
 E-mail Address **dpaul@lusi.on.ca**  
 VERSION NUMBER  
 Date **16-Jan-08**

					2007	2008			
Account Description	Account Number	Closing Principal Balance as of Dec-31-06	Opening Interest Amounts as of Jan-1-06	Interest Jan-1 to Dec31-06	Transfer of Board-approved amounts to 1590 as per 2006 EDR	Closing Interest Amounts as of Dec-31-06	Projected Interest from Jan 1 to Dec 31, 2007	Projected Interest from Jan 1 to April 30, 2008	Total Claim
Other Regulatory Assets OEB cost assessment	1508	\$ 45,243	\$ 1,783	\$ 2,926		\$ 4,709	\$ 2,057	\$ 686	\$ 52,695
OMERS pension	1508	\$ 69,669	\$ 859	\$ 1,783		\$ 2,642	\$ 3,218	\$ 1,072	\$ 76,601
other	1508								
Retail Cost Variance Account - Retail	1518	\$ 18,801	\$ 2,839	\$ 1,725	\$ (3,785)	\$ 779	\$ 863	\$ 288	\$ 20,731
Retail Cost Variance Account - STR	1548	\$ 22,315	\$ -	\$ 875		\$ 875	\$ 1,024	\$ 341	\$ 24,556
LV Variance	1550	\$ 86,186		\$ 256		\$ 256	\$ 3,956	\$ 1,319	\$ 91,717
Smart Meter Capital Variance - Recoveries	1555	\$ (16,040)		\$ (190)		\$ (190)	\$ (736)	\$ (245)	\$ (17,211)
Deferred Payments in Lieu of Taxes	1562	\$ (102,512)	\$ (2,696)	\$ (8,461)		\$ (11,157)	\$ (3,409)	\$ (1,136)	\$ (118,214)
PILS Contra Account	1563	\$ 102,512	\$ 2,696	\$ 8,461		\$ 11,157	\$ 3,409	\$ 1,136	\$ 118,214
CDM Expenditures and Recoveries	1565	\$ (22,336)	\$ -			\$ -	\$ (1,026)	\$ (342)	\$ (23,704)
CDM Contra	1566	\$ 22,336	\$ -			\$ -	\$ 1,026	\$ 342	\$ 23,704
Qualifying Transition Costs	1570	\$ -	\$ 278,393	\$ 19,796	\$ (298,189)	\$ -			\$ -
Pre-Market Opening Energy Variances	1571	\$ -	\$ 252,820	\$ 27,373	\$ (280,193)	\$ -			\$ -
RSVA - Wholesale Market Service Charge	1580	\$ (338,793)	\$ 90,846	\$ 8,865	\$ (99,660)	\$ 51	\$ (15,551)	\$ (5,184)	\$ (359,477)
RSVA - One-time Wholesale Market Service	1582	\$ 15,222	\$ 13,237	\$ 3,049	\$ (15,137)	\$ 1,149	\$ 699	\$ 233	\$ 17,303
RSVA - Retail Transmission Network Charge	1584	\$ (118,209)	\$ 3,167	\$ (16,616)	\$ 1,993	\$ (11,456)	\$ (5,426)	\$ (1,809)	\$ (136,900)
RSVA - Retail Transmission Connection Charge	1586	\$ (123,693)	\$ (10,277)	\$ (17,350)	\$ (5,698)	\$ (33,325)	\$ (5,678)	\$ (1,893)	\$ (164,589)
RSVA - Power including global adjustment	1588	\$ 1,055,466	\$ 587	\$ 38,390	\$ 9,191	\$ 48,168	\$ 48,446	\$ 16,149	\$ 1,168,229
RSVA - Power sub-account global adjustment	1588	\$ (2,837,213)							
Recovery of Regulatory Asset Balances	1590	\$ 707,247	\$ 226,928	\$ 265,047	\$ 69,238	\$ 561,213	\$ 46,307	\$ 10,405	\$ 1,325,172
							\$ 79,179	\$ 21,362	\$ 2,098,827

U:\2008 RATE APPLICATION\Interrogatories\OEB 10.6 E5 2008-regulatoryasset\_recoveryworksheet\_v8\_20071024.xls\Continuity Schedule

**10.7 Ref: Exhibit(s) Exhibit 5/Tab1/Sch3/Pg1**

Is there a balance in account 1508 sub-account OMERS that represents costs paid to OMERS by an affiliate of the LDC?

a) If yes, what is the balance?

**LUI's Response:**

**No there is not.**

b) If yes, have the billings by the affiliate to the LDC reflected an increase in OMERS pension costs beginning in the period that costs were collected in 1508?

**LUI's Response:**

**Not applicable**

i If so, what has been the increase in burden beginning in this period?

**LUI's Response:**

**Not applicable**

ii What is the period?

**LUI's Response:**

**Not applicable**

c) If no, what does the balance in account 1508 sub-account OMERS represent?

**LUI's Response:**

**The balance in 1508 sub-account OMERS ending Dec. 31/07 is \$ 76,549.17, which represents the deferral amount of \$ 69,669.19 plus \$ 6,879.98 interest improvement cost to LUI for OMERS payments prior to its inclusion in the rates.**

# 11 PILS

## 11.1 Ref: Exhibit(s) Exhibit 4/Tab 3/Schedule 1/Page 21

a) For the 2007 PILs tax calculations, please explain how the distributor calculated the income tax rate of 38.708%. The actual income tax rate in 2006 was 27.62% and taxable income in 2006 and 2007 are similar.

### LUI's Response:

In reference to Exhibit 4/Tab 3/Schedule 1/Page 1, the 38.708% which produced a result of \$347,540 is a percentage of \$897,861 as per the following calculation:

\$897,861 x 22.12%	= \$198,606
\$897,861 x 14%	= \$125,700
(\$897,861 - \$400,000) x 4.667%	= \$ 23,234
<b>TOTAL</b>	<b>= \$347,540</b>

The combined income tax rate is  $\$347,540 / \$897,861 = 38.708\%$

b) For the 2008 PILs tax calculations, please explain how the distributor calculated the income tax rate of 36.519%. The actual income tax rate in 2006 was 27.62% and taxable income in 2006, 2007 and 2008 are similar. The maximum tax rate for 2008 will be 34.5% and the small business combined tax rate will be 17%.

### LUI's Response:

The 36.519% tax calculation for 2008 PILs was derived from the same methodology as response to Question 11.1a above.

c) In the pro-forma 2008 income statement, Appendix C, net income after PILs tax is shown as \$710,218. If the income tax amount of \$405,519 is added back to net income, the pre-tax income in this pro-forma income statement is \$1,115,737. However, the amount used in the PILs income tax calculation is \$631,175. Please explain how the numbers can be different.

### LUI's Response:

LUI agrees with Board staff position as stated above, however, the \$631,175 entry was generated by our Rate Application model and must be resolved by Elenchus Research Associates (ERA), our model provider.

The tax rate for the small business class is 5.5% for the first \$400K in 2006 to \$500K effective January 1, 2007 as per the Ontario Ministry of Revenue. LUI will be revising the tax rates in Exhibit 4, Tab 3, Schedule 1, Page 1 table to reflect these changes to tax calculations i.e LUI is not in the small business class, we are between the General and Small classes.

## 11.2 Ref: Exhibit(s) Exhibit 4/Tab 3/Schedule 3/P2-4

a) Please explain why Capital Cost Allowance (CCA) class 47, 8% rate, was not used in the 2006 tax returns. Class 47 has been available for use since February 23, 2005.

### LUI's Response:

LUI has identified this item (Class 47 for 2006) is not reflected in our 2006 tax returns and has brought this to the attention of our auditors (BDO Dunwoody) and a decision will be made whether a prior year adjustment will made to the 2007 financials.

b) Actual 2006 additions to UCC are shown as \$1,086,253. Please explain why the 2006 capital expenditure budget for 2006 shown as \$1,637,086 on E2/T3/S1/P2 was not used for additions to UCC. Please provide a table that reconciles the differences.

### LUI's Response:

The Exhibit 2, Tab 3, Schedule 1, Page 2 was a list of capital projects LUI at gross value and did not take into consideration at any capital contributions in 2006. Some work in progress was included in the budget list that inflated the figures. However, at the end of 2006 was not in service and remained in Ac# 2055 CWIP. Once the items in bold yellow highlight are added, the balance would be reduced from \$1,637,086 to \$1,086,253 per below table.

CAPITAL SPENDING BY PROJECT - 2006				
Project Description	Year	USoA Account	Expansion or Enhancement	Amount
<b>Intangible Plant</b>	<b>2006</b>	<b>1610</b>	<b>Expansion</b>	<b>129,600</b>
<b>Electric plant held for future</b>	<b>2006</b>	<b>2040</b>	<b>Expansion</b>	<b>(164,819)</b>
Land - Transferred from Land held for future use for new				
Garage	2006	1805	Expansion	164,819
<b>Buildings &amp; Fixtures - New Garage</b>	2006	1808	Expansion	719,578
<b>Substation Equipment - MSP Wholesale</b>	2006	1820	Enhancement	191,088
<b>Poles - Upgrade Pole Line</b>	2006	1830	Enhancement	95,546
<b>Overhead Cond &amp; Dev - Elgin St Reconstruction</b>	2006	1835	Enhancement	55,962
<b>Underground Conduit - Elgin St Reconstruction</b>	2006	1840	Enhancement	12,820
<b>Underground Conductors - Elgin St Reconstruction</b>	2006	1845	Enhancement	34,580
<b>Transformer - New Services</b>	2006	1850	Enhancement	76,435
<b>Services - Overhead</b>	2006	1855	Enhancement	8,643
<b>Services - Underground</b>	2006	1855	Enhancement	28,539
<b>Meters</b>	<b>2006</b>	<b>1860</b>	<b>Enhancement</b>	<b>(3,834)</b>
<b>Office Equipment - Ricoh Scanner/Photocopier</b>	<b>2006</b>	<b>1915</b>	<b>Enhancement</b>	<b>45,742</b>
<b>Mailing machine, billing stuffer, garage furniture</b>				
Computer Equipment	2006	1920	Expansion	9,990
<b>Computer Software</b>	<b>2006</b>	<b>1925</b>	<b>Expansion</b>	<b>1,987</b>
<b>Transportation Equipment - Altec Digger Truck</b>	2006	1930	Enhancement	190,134
<b>Tools &amp; Equipment</b>	2006	1940	Expansion	4,300
<b>Contributed Capital</b>	<b>2006</b>	<b>1995</b>	<b>Enhancement</b>	<b>(216,407)</b>
<b>Work in progress</b>	<b>2006</b>	<b>2055</b>	<b>Enhancement</b>	<b>(298,450)</b>

TOTAL CAPITAL SPENDING BY PROJECT 2006 \$ 1,086,253

c) Please provide a continuity table that shows the movement in construction work in progress for 2006, 2007 and 2008.

**LUI's Response:**

Please refer to the table below

CWIP #2055	AFUDC Interest 4.8%		
	2006	2007	2008
<b>Opening Balance</b>	<b>298,450</b>	<b>0</b>	<b>191,092</b>
<i>Additions</i>	0	1,730,573	2,755,028
<i>Transfers to Assets in Service</i>	-298,450	-1,543,932	-2,950,572
<i>AFUDC Interest</i>		4,451	2,226
<b>Closing Balance</b>	<b>0</b>	<b>191,092</b>	<b>-2,226</b>
<i>Net impact to Capital Expenditures *</i>		191,092	-193,318
<i>Change in Year</i>		191,092	-193,318

d) Has Lakefront maximized the CCA deductions in its tax returns and in this application?

**LUI's Response:**

**LUI does not believe our tax return for 2006 took full advantage of this deduction of CCA, but believes LUI has maximized the CCA deductions for 2007 and 2008 in this Rate Application.**

e) Please explain why CCA is much lower than amortization in 2006, 2007 and 2008.

**LUI's Response:**

**Amortization for the audited financial statements is straight line depreciation and is based on a more aggressive write off policy following the rates used in the past. The depreciation for the books also does not take into account the half year rule which is used for the first year additions for CCA. The CCA for tax purposes extends the life of the assets over a longer period of time so the write off per year is less.**

### **11.3 Ref: Exhibit(s) Audited financial statements**

In Note 5 on page 13 of the audited financial statements it indicates that there is a provision against regulatory assets of \$385,462. Please explain why Lakefront requires this provision since the Board has allowed recovery of regulatory assets to take place. Please show how Lakefront dealt with the change in the provision from \$623,586 in 2005 to \$385,462 in 2006 in its 2006 tax returns.

#### **LUI's Response:**

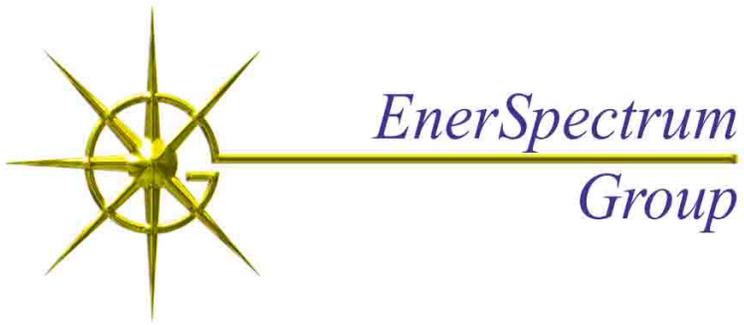
**The regulatory asset provision, note 5 on the 2006 audited financial statements, is to bring back onto the books, as revenue, the regulatory assets that had been previously written off the books as an expense.**

**In order to reflect the transition costs that were written off, our auditors recommended that we "brought back" the amounts onto our books spread out over a number of years equivalent to the rate of recoveries.**

**The change in the provision of \$238,124 from \$623,586 in 2005 to \$385,462 in 2006, was brought back into revenue on the 2006 financial statement of operations and retained earnings; (service revenue adjustments \$238,000.)**

**This revenue is then reflected on the 2006 tax returns.**

# APPENDIX V



Lakefront Utilities Inc.

Conversion from 4160 V to 27,600 V

## Distribution System Loss Assessment

Report 2

E1021

April 25, 2005

Prepared by:

Approved by:

*Original signed by  
R.D. Ryan*

*Original signed by  
Bart Burman*

R.D. Ryan, MBA, P.Eng.  
Partner

Bart Burman, MBA, BA.Sc. P.Eng.  
Managing Partner

## Introduction

On January 21, 2005, EnerSpectrum Group delivered the report *Lakefront Utilities Inc., Conversion of F9 from 4,160 V to 27,600 V, Distribution System Loss Assessment*. The report provided an assessment of the effect on distribution losses of a feeder voltage conversion. The feeder, F9 from MS 2 in Cobourg, feeds a predominately residential neighbourhood in the central downtown area. The feeder is currently operated at 4,160V, supplied from a 5,000 kVA 44kV/4kV transformer at MS 2. Post-conversion, the feeder would operate at 27,600 V supplied from existing 27,600 facilities in the area.

This analysis was made in support of Lakefront Utilities Inc. line loss mitigation program which is part of their Conservation and Demand Management Plan.

Based on the positive results of the F9 voltage conversion assessment, EnerSpectrum Group was engaged to extend the study to the remaining 4,160 V feeders in Cobourg. The basis of the extended assessment was Lakefront Utilities' judgement that the F9 feeder was typical of the remaining feeders, and therefore, the F9 model results would be applicable to the remaining feeders.

This report documents the methodology used and result obtained from the extended assessment of the application of the F9 model to the remaining Cobourg 4,160 V feeders.

## F9 Voltage Conversion Assessment

The assessment documented in the January 21 report determined that significant reduction in losses would occur through the conversion of Cobourg F9 from 4,160 V to 27,600 V. The report concluded:

As the charts and analysis illustrate, there are significant line loss savings which would result from voltage conversion to 27,600 V for feeder F9. The range of line loss reduction (3% - 5%) translates into 35 to 105 kW savings. This would impact the demand charges to Lakefront Utilities. Associated with this is the energy savings which amount to 700 – 2000 kWh per day. At an average value of 1,500 kWh per day this translates into 547,000 kWh per year. At the current artificially low price of 4.7 cents/kWh this represents a savings of \$25,700 each year.

The model provided results over the feeder load range of 1,500 to 3,000 kVA which is approximately 30 to 60% of the supply transformer loading. The losses associated with the range of peak loading are shown below in Figure 1, while the associated 24 hour energy loss is shown in Figure 2.

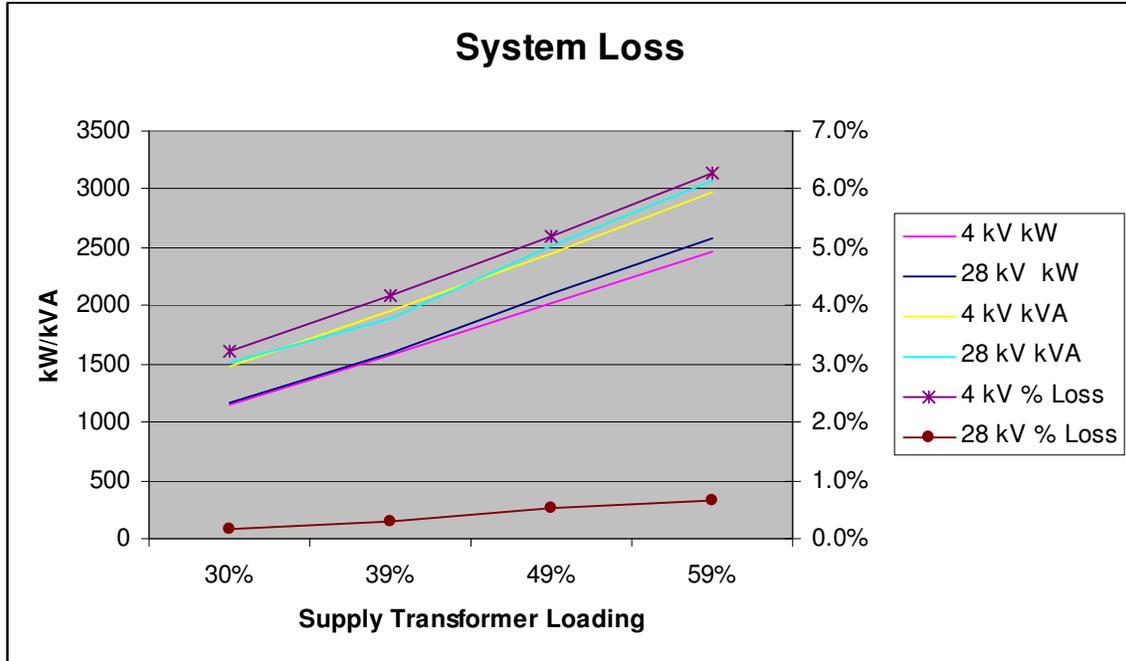


Figure 1  
 Feeder F9 Peak Loss vs. Supply Transformer Loading

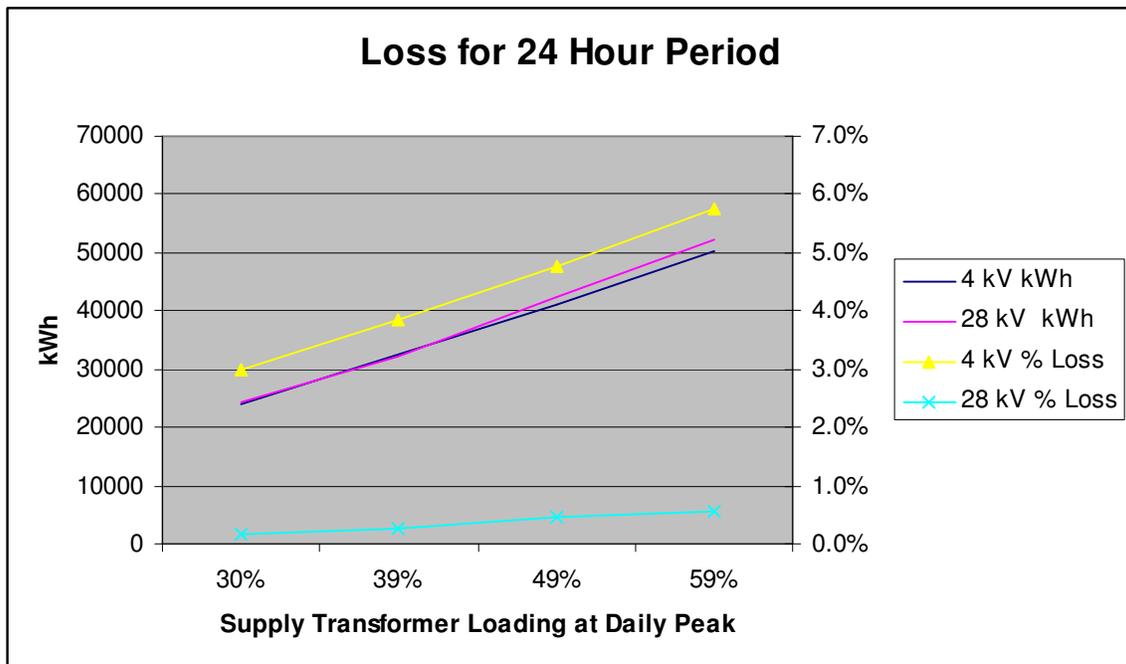


Figure 2  
 Feeder F9 Energy Loss vs. Peak Transformer Loading

## Cobourg 4,160 V Feeders

Information provided by Lakefront Utilities on the 4,160 V feeders is shown in Appendix 1. The seven feeders range in customer count from 83 to 645 with F9 having 360 customers. F9 customers are mainly residential with some commercial in the downtown business district. Three of the feeders were judged to be similar to F9 while two were judged to have a larger residential component and one to be largely three phase condominium loads.

Load current readings were provided for the three phases of each feeder. The readings, depending on the instrumentation used, were in one minute, five minute or 15 minute intervals. In all cases the readings were reduced to one reading per hour. The hourly load readings for each feeder are listed in Appendix 2.

The maximum average three phase current over the recorded time period for each feeder is shown in Table 1. Also shown is the calculated equivalent apparent power at a nominal 4,160 V.

Feeder	Date	Max Avg 3- Ph Current (Amps)	Apparent Power (kVA)
F4	07/04/2005	28	199
F5	06/04/2005	118	850
F9	21/12/2004	378	2724
F13	26/01/2005	279	2013
F14	27/01/2005	41	295
F15	03/03/2004	113	817
F19	24/03/2005	208	1501
F20	16/03/2005	230	1655

Table 1  
Feeder Peak Loading

## F9 Model Applied to Other Feeders

The F9 model results in Figure 1 and 2 can be used as the basis for regression analysis to estimate the real power and real power losses associated with the feeder apparent power. The regression analysis output is shown in Appendix 3. Since the range of the F9 model is from 1500 kVA to 3000 kVA, only the feeders F13, F19 and F20 are within the F9 model range. F4, F5, F14 and F15 would produce invalid results if the F9 model were applied to their load levels.

The result of applying the regression analysis output to predict the real power and real power losses to the Cobourg feeders in the existing 4,160 V system are shown in Table 2.

Feeder	Date	Max Avg 3-Ph Current (Amps)	Apparent Power (kVA)	Load (kW)	Losses (kW)	% Losses
F9	21/12/2004	378	2724	2258	131	5.8%
F13	26/01/2005	279	2013	1626	75	4.6%
F19	24/03/2005	208	1501	1171	34	2.9%
F20	16/03/2005	230	1655	1308	46	3.5%

Table 2  
Losses at Feeder Peak Loading - 4,160 V

The predicted losses for the feeders when converted to 27,600 V are shown in Table 3.

Feeder	Date	Max Avg 3-Ph Current (Amps)	Apparent Power (kVA)	Load (kW)	Losses (kW)	% Losses
F9	21/12/2004	378	2724	2353	14	0.6%
F13	26/01/2005	279	2013	1672	7	0.4%
F19	24/03/2005	208	1501	1182	1	0.1%
F20	16/03/2005	230	1655	1329	3	0.2%

Table 3  
Losses at Feeder Peak Loading – 27,600 V

Tables 4 and 5 show the equivalent energy and associated losses for a 24 hour period related to the peak power in tables 2 and 3.

Feeder	Date	Max Avg 3-Ph Current (Amps)	Apparent Power (kVA)	Load (kWh)	Losses (kWh)	% Losses
F9	21/12/2004	378	2724	45990	2451	5.3%
F13	26/01/2005	279	2013	33414	1412	4.2%
F19	24/03/2005	208	1501	24364	665	2.7%
F20	16/03/2005	230	1655	27083	889	3.3%

Table 4  
Losses for 24 Hour Period - Feeder Peak Loading – 4,160 V

Feeder	Date	Max Avg 3-Ph Current (Amps)	Apparent Power (kVA)	Load (kWh)	Losses (kWh)	% Losses
F9	21/12/2004	378	2724	47589	247	0.5%
F13	26/01/2005	279	2013	34110	118	0.3%
F19	24/03/2005	208	1501	24410	25	0.1%
F20	16/03/2005	230	1655	27325	53	0.2%

Table 5  
Losses for 24 Hour Period - Feeder Peak Loading – 27,600 V

The savings to be gained from converting from 4,160 V to 27,600V can be arrived at by finding the difference in losses in the above table pairs. These savings are shown in Tables 6 and 7.

Feeder	Date	Max Avg 3-Ph Current (Amps)	Apparent Power (kVA)	4 kV Load (kW)	Losses Saved (kW)	% Losses
F9	21/12/2004	378	2724	2258	117	5.2%
F13	26/01/2005	279	2013	1626	68	4.2%
F19	24/03/2005	208	1501	1171	33	2.8%
F20	16/03/2005	230	1655	1308	43	3.3%

Table 6  
Losses Saved at Feeder Peak Loading

Feeder	Date	Max Avg 3-Ph Current (Amps)	Apparent Power (kVA)	4 kV Load (kWh)	Losses Saved (kWh)	% Losses
F9	21/12/2004	378	2724	45990	2205	4.8%
F13	26/01/2005	279	2013	33414	1295	3.9%
F19	24/03/2005	208	1501	24364	640	2.6%
F20	16/03/2005	230	1655	27083	836	3.1%

Table 7  
Losses Saved for 24 Hour Period

## Annual Savings

Determining annual savings for each of the feeders based on the results of the above analysis is problematic given that only one point in time is analyzed. Although each feeder shows a significant loss reduction, an assessment of where each feeder's load fits in the annual load pattern would need to be performed to make an accurate determination of annual benefits. However, consistent with Report 1, using 75% of the above loss savings at the current residential rate of \$0.05/kWh provides the annual savings in Table 8.

Feeder	Losses Saved (kWh)	Savings @ \$0.05/kWh
F9	603,512	\$ 30,176
F13	354,377	\$ 17,719
F19	175,101	\$ 8,755
F20	228,968	\$ 11,448

Table 8  
 Annual Savings Based on 75% Average Loss Reduction and \$0.05/kWh

## Other Benefits of Voltage Conversion

The energy loss savings outlined in the above analysis will provide savings to the customers of Lakefront Utilities Inc. through a reduction in the losses added to their energy bills. In addition, there are other benefits, both monetary and in service quality to be gained from converting from 4,160 V to 27,600 supply.

The additional benefits are:

- **An improvement in the feeder voltage profile.** In the 4,160 V feeders, the high line currents cause a voltage drop as the current flows through the line from the substation to the end customers. This requires that the voltage at the station be raised above nominal to ensure the end of line customers receive adequate voltage. The lower current in the converted line results in minimal voltage drop thereby providing all customers with voltages closer to nominal. This reduces the number of voltage complaints that require response. In addition, future investments to overcome voltage related problems associated with increased load can be avoided.

- **A reduction in demand charges.** The reduced load at peak times will result in lower demand charges to Lakefront Utilities thereby contributing to the reduction of the rates to their customers.
- **A reduction in capital assets.** The conversion of feeders to 27,600 V eliminates the need for the 44 kV to 4,160 V substations. This reduces maintenance expenses, depreciation and taxes. Properties released by the elimination of the 4,160 V substations can be sold.

**Purchase of more efficient distribution transformers.** The analysis and modeling of the voltage conversion of Feeder F9 did not include changes to the efficiency of the distribution transformers. All distribution transformers were modeled with the same loss characteristics for both the 4,160 V and 27,600 V scenarios. When purchasing transformers to implement the voltage conversion, Lakefront Utilities has the opportunity to purchase more efficient transformers. The reduction in system losses as a result of this action will be in addition to those identified in the studies.

## Conclusion

Under Lakefront Utilities direction, the results of January 21, 2005 report *Conversion of F9 from 4,160 V to 27,600 V, Distribution System Loss Assessment* were used to successfully extrapolate losses and loss reductions for feeders F13, F19 and F20. Using the same assumptions as those used in the first report, estimates of dollar benefits associated with loss reductions were determined.

The load range for feeders F4, F5, F14 and F15 is below the range of loads in the F9 model. Therefore applying the F9 model to these feeders would produce invalid results. Feeders F13, F19 and F20 have measured loads that fall within the range of the F9 model. Based on the judgement of Lakefront Utilities that the feeders share similar characteristics with F9, the application of the F9 model to these feeders shows a significant loss reduction through voltage conversion.

Although each of the three feeders F13, F19 and F20, have loads at the low end of the F9 model range, the model produces energy loss savings from 600 kWh to 1300 kWh over the 24 hour periods studied. This is from 2.6% to 3.9% of the energy delivered.

Determining annual savings for each of the feeders based on the results of the above analysis is problematic given that only one point in time is analyzed. An assessment of where each feeder's load fits in the annual load pattern would need to be performed to make an accurate determination of annual benefits. However, using 50% of the above loss savings at the current residential rate of \$0.05/kWh provides the annual savings of \$25,000 for the three feeders.

## Recommendations

Based on the result of this study, it is recommended that:

- A review be performed of the annual system load shape to assess the 75% factor used to derive the annual loss savings in Table 8.
- Feeders F4, F5, F14 and F15 not be modeled for voltage conversion alone. These feeders have load currents of one-half to one-quarter those in the F9 model with proportionately insufficient annual savings to justifying the effort involved.
- For those feeders that are not converted to 27,600 V or where conversion is delayed, other loss reduction techniques should be modeled on a selective basis, to pursue, for example, power factor correction for large customers, load balancing between phases, re-conductoring and a review of open points.
- The effects of customer demand management and demand response programs on distribution system losses should be identified modeled and documented.

## Appendix 1 – 4,160 V System Information

**From:** Dale Dingwall [mailto:DDingwall@lusi.on.ca]  
**Sent:** March 15, 2005 4:41 PM  
**To:** Roger Ryan (E-mail)  
**Subject:** Cobourg 4.16kV feeders

Have been having trouble with load study but here is some stats.

Feeder	phase	customer count	NOTES
F5		217	abut like feeder 9
F9		360	feeder we studied
F13		173	abut like feeder 9
F14		284	abut like feeder 9
F15		83	heavy on 3 phase for condos, small and light business
F19		627	heavy on residential and smaller commercial with few light medium like restaurants
F20		845	heavy on residential and smaller commercial like variety stores
total		2589	same as feeder 9

I am working on 1 day loads per feeder and phase

<<F13rwb0105.xls>> <<feeder a9RWB amps.xls>>

Dale Dingwall, C.E.T.,  
Technical Services Supervisor,  
Lakefront Utility Services Inc.,  
207 Division St.,  
Cobourg, ON  
K9A 4L3  
905-372-2193 p  
905-372-2581 f

## Appendix 2 – 4,160 V Feeder Loading

### Feeder F4

Time	R	W	B	Hour	Max	kVA
					28	199
					Avg	
07/04/2005 8:05	21	22	33	8	25	
07/04/2005 9:05	28	27	27	9	27	
07/04/2005 10:05	20	21	28	10	23	
07/04/2005 11:05	22	24	26	11	24	
07/04/2005 12:05	25	27	29	12	27	
07/04/2005 13:05	23	24	28	13	25	
07/04/2005 14:05	25	29	29	14	28	
07/04/2005 15:05	24	25	28	15	26	
07/04/2005 16:05	23	22	26	16	24	
07/04/2005 17:05	21	23	25	17	23	
07/04/2005 18:05	19	20	24	18	21	
07/04/2005 19:05	20	22	28	19	23	
07/04/2005 20:05	19	22	25	20	22	
07/04/2005 21:05	20	21	23	21	21	
07/04/2005 22:05	18	20	22	22	20	
07/04/2005 23:05	15	19	16	23	17	
08/04/2005 0:05	16	17	18	0	17	
08/04/2005 1:05	17	19	23	1	20	
08/04/2005 2:05	16	15	18	2	16	
08/04/2005 3:05	16	16	17	3	16	
08/04/2005 4:05	16	16	19	4	17	
08/04/2005 5:05	15	16	20	5	17	
08/04/2005 6:05	18	19	24	6	20	
08/04/2005 7:05	18	20	24	7	21	

**Feeder F5**

Time	R	W	B	Hour	Max kVA	
					118	850
					Avg	
06/04/2005 8:15	63	181	105	8	116	
06/04/2005 9:15	62	179	105	9	115	
06/04/2005 10:15	67	178	109	10	118	
06/04/2005 11:15	62	169	103	11	111	
06/04/2005 12:15	61	162	104	12	109	
06/04/2005 13:15	58	164	95	13	106	
06/04/2005 14:15	61	149	96	14	102	
06/04/2005 15:15	57	154	100	15	104	
06/04/2005 16:15	62	153	96	16	104	
06/04/2005 17:15	66	180	97	17	114	
06/04/2005 18:15	58	165	93	18	105	
06/04/2005 19:15	54	156	82	19	97	
06/04/2005 20:15	64	175	98	20	112	
06/04/2005 21:15	69	184	97	21	117	
06/04/2005 22:15	65	176	96	22	112	
06/04/2005 23:15	61	157	92	23	103	
07/04/2005 0:15	60	145	84	0	96	
07/04/2005 1:15	53	137	75	1	88	
07/04/2005 2:15	54	125	71	2	83	
07/04/2005 3:15	54	122	69	3	82	
07/04/2005 4:15	54	131	71	4	85	
07/04/2005 5:15	54	142	77	5	91	
07/04/2005 6:15	57	139	76	6	91	
07/04/2005 7:15	61	164	94	7	106	

## Feeder F9

Time	R	W	B	Hour	Avg	Max	kVA
						378	2724
21/12/2004 14:15	303	252	305	14	287		
21/12/2004 15:15	310	266	303	15	293		
21/12/2004 16:15	360	312	348	16	340		
21/12/2004 17:15	396	335	398	17	376		
21/12/2004 18:15	419	324	391	18	378		
21/12/2004 19:15	388	317	378	19	361		
21/12/2004 20:15	358	309	373	20	347		
21/12/2004 21:15	356	292	347	21	332		
21/12/2004 22:15	339	270	324	22	311		
21/12/2004 23:15	302	256	291	23	283		
22/12/2004 0:15	273	240	269	0	261		
22/12/2004 1:15	257	224	251	1	244		
22/12/2004 2:15	248	216	239	2	234		
22/12/2004 3:15	244	214	241	3	233		
22/12/2004 4:15	255	215	239	4	236		
22/12/2004 5:15	254	217	249	5	240		
22/12/2004 6:15	273	229	263	6	255		
22/12/2004 7:15	293	240	282	7	272		
22/12/2004 8:15	320	252	306	8	293		
22/12/2004 9:15	323	279	321	9	308		
22/12/2004 10:15	332	292	336	10	320		
22/12/2004 11:15	343	294	338	11	325		
22/12/2004 12:15	340	283	342	12	322		
22/12/2004 13:15	343	290	344	13	326		
22/12/2004 14:15	341	276	327	14	315		
22/12/2004 15:15	329	276	325	15	310		
22/12/2004 16:15	354	291	336	16	327		
22/12/2004 17:15	383	315	375	17	358		
22/12/2004 18:15	372	324	374	18	357		
22/12/2004 19:15	369	312	363	19	348		
22/12/2004 20:15	348	294	360	20	334		
22/12/2004 21:15	338	278	331	21	316		
22/12/2004 22:15	327	269	308	22	301		
22/12/2004 23:15	292	240	271	23	268		
23/12/2004 0:15	265	225	263	0	251		
23/12/2004 1:15	250	224	243	1	239		
23/12/2004 2:15	235	210	237	2	227		
23/12/2004 3:15	234	205	241	3	227		

Feeder Voltage Conversion Loss Assessment  
Report 2  
Lakefront Utilities Inc.

23/12/2004 4:15	240	211	236	4	229
23/12/2004 5:15	255	217	250	5	241
23/12/2004 6:15	280	228	254	6	254
23/12/2004 7:15	286	235	273	7	265
23/12/2004 8:15	306	262	313	8	294

**Feeder F13**

Time	R	W	B	Hour	Avg	Max	kVA
						279	2013
25/01/2005 11:12	245	339	228	11	271		
25/01/2005 12:12	259	325	218	12	267		
25/01/2005 13:12	259	332	225	13	272		
25/01/2005 14:12	251	298	227	14	259		
25/01/2005 15:12	247	314	218	15	260		
25/01/2005 16:12	253	321	208	16	261		
25/01/2005 17:12	259	326	215	17	267		
25/01/2005 18:12	250	311	219	18	260		
25/01/2005 19:12	238	302	219	19	253		
25/01/2005 20:12	238	282	228	20	249		
25/01/2005 21:12	224	265	213	21	234		
25/01/2005 22:12	209	254	205	22	223		
25/01/2005 23:12	195	246	181	23	207		
26/01/2005 0:12	190	236	160	0	195		
26/01/2005 1:12	173	237	161	1	190		
26/01/2005 2:12	173	228	166	2	189		
26/01/2005 3:12	176	223	166	3	188		
26/01/2005 4:12	183	223	159	4	188		
26/01/2005 5:12	174	232	165	5	190		
26/01/2005 6:12	181	246	174	6	200		
26/01/2005 7:12	218	282	206	7	235		
26/01/2005 8:12	228	302	217	8	249		
26/01/2005 9:12	263	335	240	9	279		
26/01/2005 10:12	257	330	243	10	277		

**Feeder 14**

Time	R	W	B	Hour	Max kVA	
					41	295
					Avg	
27/01/2005 7:43	21	39	39	7	33	
27/01/2005 8:43	25	41	49	8	38	
27/01/2005 9:43	26	47	50	9	41	
27/01/2005 10:43	22	46	48	10	39	
27/01/2005 11:43	20	50	44	11	38	
27/01/2005 12:43	21	47	45	12	38	
27/01/2005 13:43	22	45	44	13	37	
27/01/2005 14:43	24	43	39	14	35	
27/01/2005 15:43	24	45	42	15	37	
27/01/2005 16:43	24	49	44	16	39	
27/01/2005 17:43	21	42	47	17	37	
27/01/2005 18:43	24	44	44	18	37	
27/01/2005 19:43	22	39	36	19	32	
27/01/2005 20:43	21	39	40	20	33	
27/01/2005 21:43	23	38	39	21	33	
27/01/2005 22:43	21	36	34	22	30	
27/01/2005 23:43	21	32	38	23	30	
28/01/2005 0:43	16	28	34	0	26	
28/01/2005 1:43	19	35	34	1	29	
28/01/2005 2:43	19	32	34	2	28	
28/01/2005 3:43	19	30	39	3	29	
28/01/2005 4:43	18	27	30	4	25	
28/01/2005 5:43	19	31	33	5	28	
28/01/2005 6:43	18	34	37	6	30	
28/01/2005 7:43	20	34	40	7	31	

Feeder Voltage Conversion Loss Assessment  
Report 2  
Lakefront Utilities Inc.

**Feeder F15**

Date	R	W	B	Hour	Max kVA	
					113	817
					Avg	
3/3/04 10:15	71	90	146	10	102	
3/3/04 11:15	78	96	149	11	108	
3/3/04 12:15	83	99	158	12	113	
3/3/04 13:15	73	92	141	13	102	
3/3/04 14:15	73	91	143	14	102	
3/3/04 15:15	70	88	138	15	99	
3/3/04 16:15	74	88	144	16	102	
3/3/04 17:15	74	90	139	17	101	
3/3/04 18:15	80	83	138	18	100	
3/3/04 19:14	81	86	139	19	102	
3/3/04 20:14	76	83	131	20	97	
3/3/04 21:14	78	81	119	21	93	
03/03/2004 22:14	73	80	123	22	92	
03/03/2004 23:14	70	74	115	23	86	
04/03/2004 0:14	66	73	109	0	83	
04/03/2004 1:14	62	71	104	1	79	
04/03/2004 2:15	62	68	102	2	77	
04/03/2004 3:15	64	73	105	3	81	
04/03/2004 4:15	62	75	101	4	79	
04/03/2004 5:16	63	71	104	5	79	
04/03/2004 6:16	63	75	108	6	82	
04/03/2004 7:16	68	83	116	7	89	
04/03/2004 8:16	69	88	122	8	93	

**Feeder F19**

	Time	R	W	B	Hour	Avg	Max kVA	
							208	1501
24/03/2005 6:55	182	215	191	6	196			
24/03/2005 7:55	183	218	181	7	194			
24/03/2005 8:55	176	215	173	8	188			
24/03/2005 9:55	187	200	172	9	186			
24/03/2005 10:55	171	196	164	10	177			
24/03/2005 11:55	159	182	162	11	168			
24/03/2005 12:55	158	175	148	12	160			
24/03/2005 13:55	164	177	160	13	167			
24/03/2005 14:55	151	192	155	14	166			
24/03/2005 15:55	180	198	165	15	181			
24/03/2005 16:55	169	213	177	16	186			
24/03/2005 17:55	187	233	205	17	208			
24/03/2005 18:55	179	212	201	18	197			
24/03/2005 19:55	168	228	185	19	194			
24/03/2005 20:55	167	205	179	20	184			
24/03/2005 21:55	150	197	159	21	169			
24/03/2005 22:55	126	165	137	22	143			
24/03/2005 23:55	116	166	118	23	133			
25/03/2005 0:55	119	157	117	0	131			
25/03/2005 1:55	112	152	114	1	126			
25/03/2005 2:55	116	155	115	2	129			
25/03/2005 3:55	120	159	126	3	135			
25/03/2005 4:55	129	172	125	4	142			
25/03/2005 5:55	135	178	144	5	152			
25/03/2005 6:55	149	168	152	6	156			
25/03/2005 7:55	167	191	176	7	178			
25/03/2005 8:55	179	223	190	8	197			
25/03/2005 9:55	179	216	209	9	201			
25/03/2005 10:55	189	209	201	10	200			
25/03/2005 11:55	172	213	191	11	192			
25/03/2005 12:55	155	196	170	12	174			
25/03/2005 13:55	149	207	173	13	176			
25/03/2005 14:55	144	183	160	14	162			
25/03/2005 15:55	163	208	180	15	184			
25/03/2005 16:55	157	193	178	16	176			
25/03/2005 17:55	163	227	201	17	197			
25/03/2005 18:55	171	217	190	18	193			
25/03/2005 19:55	161	218	185	19	188			

Feeder Voltage Conversion Loss Assessment  
Report 2  
Lakefront Utilities Inc.

25/03/2005 20:55	148	208	166	20	174
25/03/2005 21:55	146	195	151	21	164
25/03/2005 22:55	129	176	131	22	145
25/03/2005 23:55	121	174	129	23	141
26/03/2005 0:55	112	154	114	0	127
26/03/2005 1:55	114	151	123	1	129
26/03/2005 2:55	116	169	117	2	134
26/03/2005 3:55	117	166	125	3	136
26/03/2005 4:55	126	176	131	4	144
26/03/2005 5:55	128	180	145	5	151
26/03/2005 6:55	142	183	171	6	165
26/03/2005 7:55	170	216	171	7	186
26/03/2005 8:55	160	210	178	8	183
26/03/2005 9:55	147	203	168	9	173
26/03/2005 10:55	137	209	184	10	177
26/03/2005 11:55	145	198	169	11	171
26/03/2005 12:55	142	188	156	12	162
26/03/2005 13:55	140	176	153	13	156
26/03/2005 14:55	135	192	146	14	158
26/03/2005 15:55	155	202	149	15	169
26/03/2005 16:55	159	202	176	16	179
26/03/2005 17:55	176	210	182	17	189
26/03/2005 18:55	179	230	176	18	195
26/03/2005 19:55	175	219	187	19	194
26/03/2005 20:55	162	205	176	20	181
26/03/2005 21:55	155	208	158	21	174
26/03/2005 22:55	137	175	147	22	153
26/03/2005 23:55	126	164	132	23	141
27/03/2005 0:55	130	165	116	0	137
27/03/2005 1:55	119	165	116	1	133
27/03/2005 2:55	125	156	116	2	132
27/03/2005 3:55	117	160	126	3	134
27/03/2005 4:55	126	171	132	4	143
27/03/2005 5:55	133	170	137	5	147
27/03/2005 6:55	138	175	154	6	156
27/03/2005 7:55	145	199	177	7	174
27/03/2005 8:55	158	207	171	8	179
27/03/2005 9:55	153	220	163	9	179
27/03/2005 10:55	149	205	186	10	180
27/03/2005 11:55	155	216	183	11	185
27/03/2005 12:55	146	196	171	12	171
27/03/2005 13:55	139	175	157	13	157

Feeder Voltage Conversion Loss Assessment  
Report 2  
Lakefront Utilities Inc.

27/03/2005 14:55	144	186	160	14	163
27/03/2005 15:55	149	210	171	15	177
27/03/2005 16:55	151	219	179	16	183
27/03/2005 17:55	154	212	183	17	183
27/03/2005 18:55	177	212	178	18	189
27/03/2005 19:55	152	199	173	19	175
27/03/2005 20:55	150	199	158	20	169
27/03/2005 21:55	130	173	135	21	146
27/03/2005 22:55	111	144	122	22	126
27/03/2005 23:55	106	134	116	23	119
28/03/2005 0:55	104	136	107	0	116
28/03/2005 1:55	101	145	108	1	118
28/03/2005 2:55	105	139	107	2	117
28/03/2005 3:55	105	141	111	3	119
28/03/2005 4:55	122	161	126	4	136
28/03/2005 5:55	139	169	137	5	148
28/03/2005 6:55	153	199	159	6	170
28/03/2005 7:55	160	207	179	7	182
28/03/2005 8:55	183	227	195	8	202
28/03/2005 9:55	174	233	202	9	203
28/03/2005 10:55	174	224	193	10	197
28/03/2005 11:55	167	222	198	11	196
28/03/2005 12:55	171	199	171	12	180
28/03/2005 13:55	176	210	182	13	189
28/03/2005 14:55	168	205	184	14	186
28/03/2005 15:55	179	227	204	15	203
28/03/2005 16:55	177	229	207	16	204
28/03/2005 17:55	179	225	193	17	199
28/03/2005 18:55	175	231	202	18	203
28/03/2005 19:55	173	213	183	19	190
28/03/2005 20:55	169	201	167	20	179
28/03/2005 21:55	131	178	142	21	150
28/03/2005 22:55	120	152	117	22	130
28/03/2005 23:55	112	137	114	23	121
29/03/2005 0:55	110	142	108	0	120
29/03/2005 1:55	107	130	105	1	114
29/03/2005 2:55	101	136	102	2	113
29/03/2005 3:55	106	144	112	3	121
29/03/2005 4:55	126	164	119	4	136
29/03/2005 5:55	142	177	137	5	152
29/03/2005 6:55	160	206	164	6	177

**Feeder F20**

Time	R	W	B	Hour	Max kVA	
					230	1655
					Avg	
16/03/2005 13:15	120	158	199	13	159	
16/03/2005 14:15	130	166	182	14	159	
16/03/2005 15:15	116	159	180	15	152	
16/03/2005 16:15	137	193	193	16	174	
16/03/2005 17:15	139	221	228	17	196	
16/03/2005 18:15	158	231	267	18	219	
16/03/2005 19:15	174	240	275	19	230	
16/03/2005 20:15	171	225	272	20	223	
16/03/2005 21:15	162	226	257	21	215	
16/03/2005 22:15	145	210	230	22	195	
16/03/2005 23:15	131	187	207	23	175	
17/03/2005 0:15	114	151	177	0	147	
17/03/2005 1:15	108	146	172	1	142	
17/03/2005 2:15	107	156	167	2	143	
17/03/2005 3:15	108	157	163	3	143	
17/03/2005 4:15	107	164	174	4	148	
17/03/2005 5:15	106	169	175	5	150	
17/03/2005 6:15	138	174	203	6	172	
17/03/2005 7:15	132	189	221	7	181	
17/03/2005 8:15	140	199	224	8	188	
17/03/2005 9:15	145	192	219	9	185	
17/03/2005 10:15	137	192	213	10	181	
17/03/2005 11:15	148	185	214	11	182	
17/03/2005 12:15	134	179	203	12	172	
17/03/2005 13:15	134	179	192	13	168	
17/03/2005 14:15	135	167	192	14	165	
17/03/2005 15:15	132	182	186	15	167	
17/03/2005 16:15	156	212	214	16	194	
17/03/2005 17:15	159	235	250	17	215	
17/03/2005 18:15	163	242	258	18	221	
17/03/2005 19:15	162	237	267	19	222	
17/03/2005 20:15	157	250	270	20	226	
17/03/2005 21:15	165	234	247	21	215	
17/03/2005 22:15	141	215	246	22	201	
17/03/2005 23:15	125	181	200	23	169	
18/03/2005 0:15	126	158	179	0	154	
18/03/2005 1:15	107	149	173	1	143	
18/03/2005 2:15	106	158	172	2	145	

Feeder Voltage Conversion Loss Assessment  
Report 2  
Lakefront Utilities Inc.

18/03/2005 3:15	120	151	166	3	146
18/03/2005 4:15	114	163	174	4	150
18/03/2005 5:15	125	161	181	5	156
18/03/2005 6:15	131	162	202	6	165
18/03/2005 7:15	134	169	209	7	171
18/03/2005 8:15	131	189	214	8	178
18/03/2005 9:15	145	189	200	9	178

## Appendix 3 – F9 Model Regression Analysis

### Regression Analysis

#### Format

m	b
SE	SEb
R^2	SEv
F	df
SSreg	SSresid

#### 4 kV kW Load

0.888567902	-162.41299
0.011811129	26.937731
0.999646753	13.08185
5659.764909	2
968582.7304	342.2696

#### 4 kV kW Losses

0.07952665	-85.198822
0.005499125	12.541896
0.990527635	6.0907582
209.1405022	2
7758.555329	74.194671

#### 28 kV kW Load

0.957687082	-255.83579
0.009026677	20.587211
0.999822352	9.9978279
11256.19031	2
1125130.087	199.91312

#### 28 kV kW Losses

0.010323875	-14.091068
0.000902915	2.0592844
0.984932389	1.0000564
130.7350397	2
130.7497746	2.0002254

**4 kV 24 Hour Load kWh**

17.69050569	-2191.8779
0.082122778	187.29804
0.999956902	90.958098
46403.76677	2
383915790.2	16546.751

**4 kV 24 Hour Losses  
kWh**

1.46118261	-1528.545
0.099438136	226.7893
0.990822533	110.13636
215.9250545	2
2619174.715	24260.035

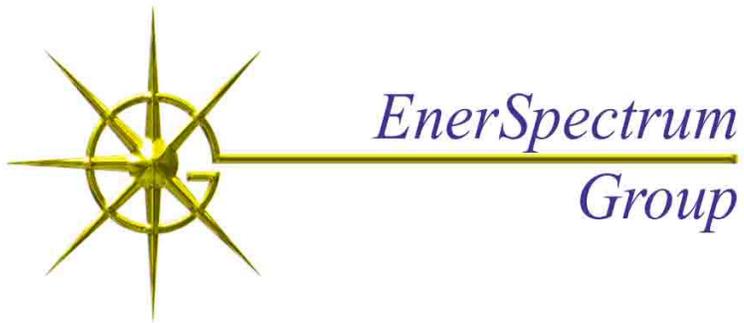
**28 kV 24 Hour Load kWh**

18.96049122	-4051.6588
0.451608397	1029.9867
0.998866654	500.19546
1762.686803	2
441016308	500391

**28 kV 24 Hour Losses  
kWh**

0.18104633	-246.55614
0.018546331	42.298757
0.979443649	20.54167
95.29353083	2
40210.07955	843.92045

# APPENDIX V



Lakefront Utilities Inc.

Conversion of F9 from 4160 V to 27,600 V

## Distribution System Loss Assessment

E4019

January 21, 2005

Prepared by:

*Original signed by*  
*R.D. Ryan*

R.D. Ryan, MBA, P.Eng.  
Partner

Approved by:

*Original signed by*  
*Bart Burman*

Bart Burman, MBA, BA.Sc. P.Eng.  
Managing Partner

## Introduction

On October 22, 2004, Lakefront Utilities Inc. contracted EnerSpectrum Group to provide an assessment of the effect on distribution losses of a feeder voltage conversion. The feeder, F9 from MS 2 in Cobourg, feeds a predominately residential neighbourhood in the central downtown area. The feeder is currently operated at 4,160V, supplied from a 5,000 kVA 44kV/4kV transformer at MS 2. Post-conversion, the feeder would operate at 27,600 V supplied from existing 27,600 facilities in the area.

This analysis is being made in support of Lakefront Utilities Inc. line loss mitigation program which is part of their Conservation and Demand Management Plan.

The following seven steps were undertaken to assemble data and model the impact of 27.6/16 kV conversion on the distribution system:

1. Identify existing feeder and load to be displaced through conversion  
Physical route, electrical characteristics, load connection points and customer characteristics, and other relevant data were assembled for F9.
2. Identify 27.6/16 kV feeder to accommodate converted load  
Routing and connection data pertaining to the existing 27.6/16 kV feeder F2 were reviewed.
3. Identify substation being off loaded  
Electrical characteristics of MS 2 transformer and loading were reviewed.
4. Identify 27.6/16 kV substation accommodating converted load  
Electrical characteristics of MS 28 – 1 transformer and loading were reviewed.
5. Assess 44kV system impacts  
Routing and connection data pertaining to the 44 kV to both MS 28-1 and MS 2 were reviewed.
6. Model feeders  
Created system models and entered data obtained from earlier steps to identify losses for F9 as a 4,160 V and as converted to a 27.6 KV feeder.

This report documents system impacts and the loss reduction in kW from conversions and estimates ranges of benefits from loss mitigation. This report can be used by Lakefront Utilities to support submissions to regulatory authorities.

## F9 4,160 V Model

The 4,160 V feeder F9 was modeled in its existing configuration. The line layout for the model was derived from the AutoCAD information supplied. All overhead conductors were modeled as #3/0 copper. The underground section of F9 on Division Street was modeled as #4/0 Al XLPE.

The 5,000 kVA 44kV/4,160V supply transformer was modeled at MS 2 based on nameplate data. All distribution transformers were modeled using typical characteristics

for each size of transformer. The transformers of appropriate size and configuration were attached to the line sections based on location information supplied. Two single phase transformers near 437 John Street were lacking phase information. These were modeled on the red phase since this phase is the most heavily loaded. One transformer near 15 Swayne Street was supplied with an unknown kVA rating. This transformer was modeled as 50 kVA. All transformers were modeled on 100% tap.

Loads were assigned to each transformer based on the nameplate rating of the transformer. All loads were modeled as residential unless specifically identified as commercial. No industrial loads were identified. One modification was made when information was provided that two 250 kVA single phase pad mount transformers, off College Street north of King Street East, feed Seniors residences that had been converted to gas for heat and hot water. The loads on these transformers were reduced to half of nameplate rating.

## **F9 27,600 V Model**

Once the 4,160 V model was developed, a copy was made and converted to 27,600 V, maintaining all load and line configurations. The 5,000 kVA supply transformer was replaced with a 27,600 V source at MS 2. All distribution transformers were replaced with 27,600 V transformers having typical characteristics.

## **Modeling Results**

At a site visit to MS 2 on October 22, 2004, load readings were recorded for F9 as follows:

Time 10:00 AM

- Red Phase 310 Amps,
- White Phase 260 Amps,
- Blue Phase 300 Amps.

The first model run was performed by scaling the loads to produce an average current at 10:00 AM of 290 Amps to match the October 22 readings. The model was run for a full 24 hours for October 22, with the same load scaling for each hour as at 10:00 AM. The 26,600 V model was run for the same 24 hour period using the same load scaling. The resulting currents are shown in Figure 1 and 2 below. Figures 3 and 4 show the feeder load and the associated losses relating to these currents.

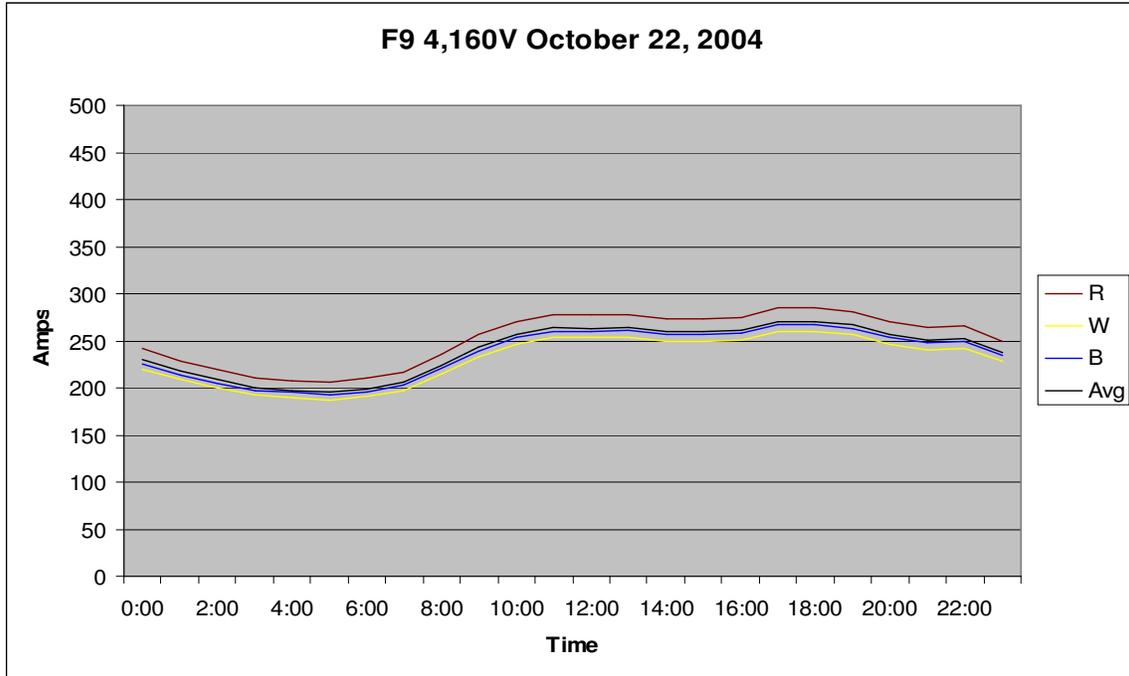


Figure 1  
F9 4,160 V Model Adjusted to Match 10:00 AM Currents

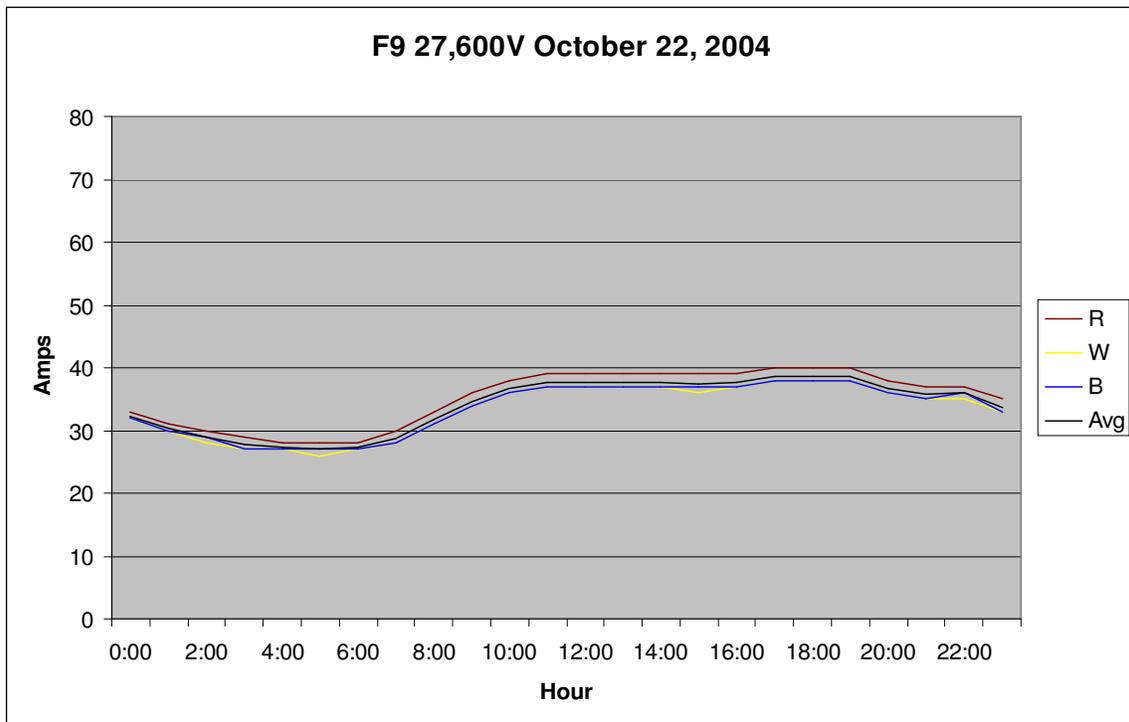


Figure 2  
F9 27,600 V Model Equivalent, Adjusted to Match 10:00 AM Currents

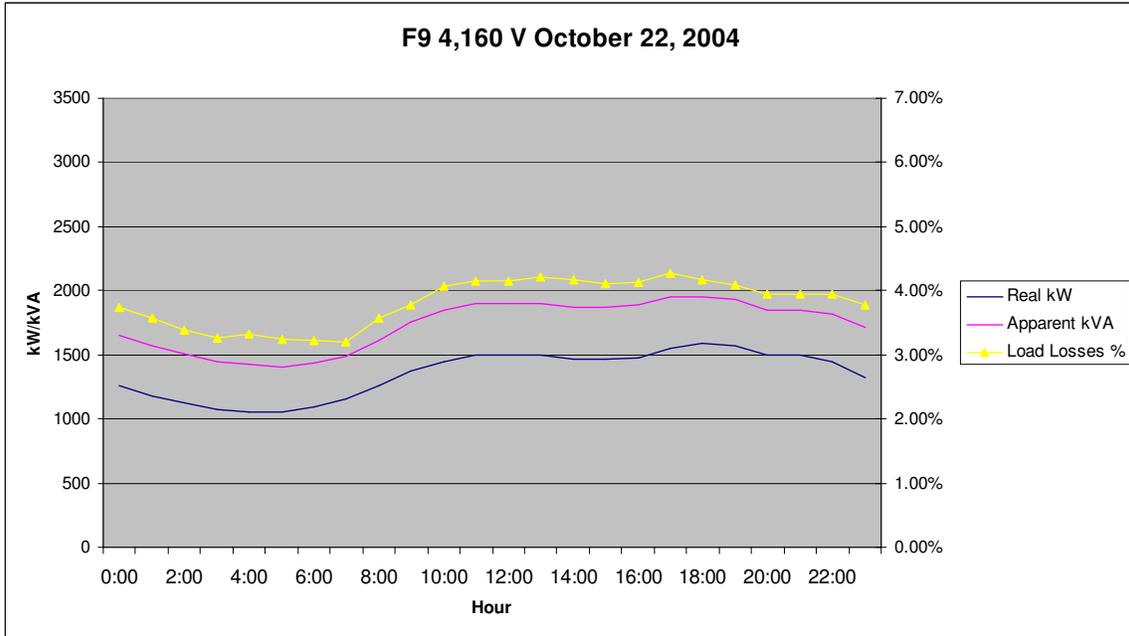


Figure 3  
F9 4,160 V Model Adjusted to Match 10:00 AM Currents

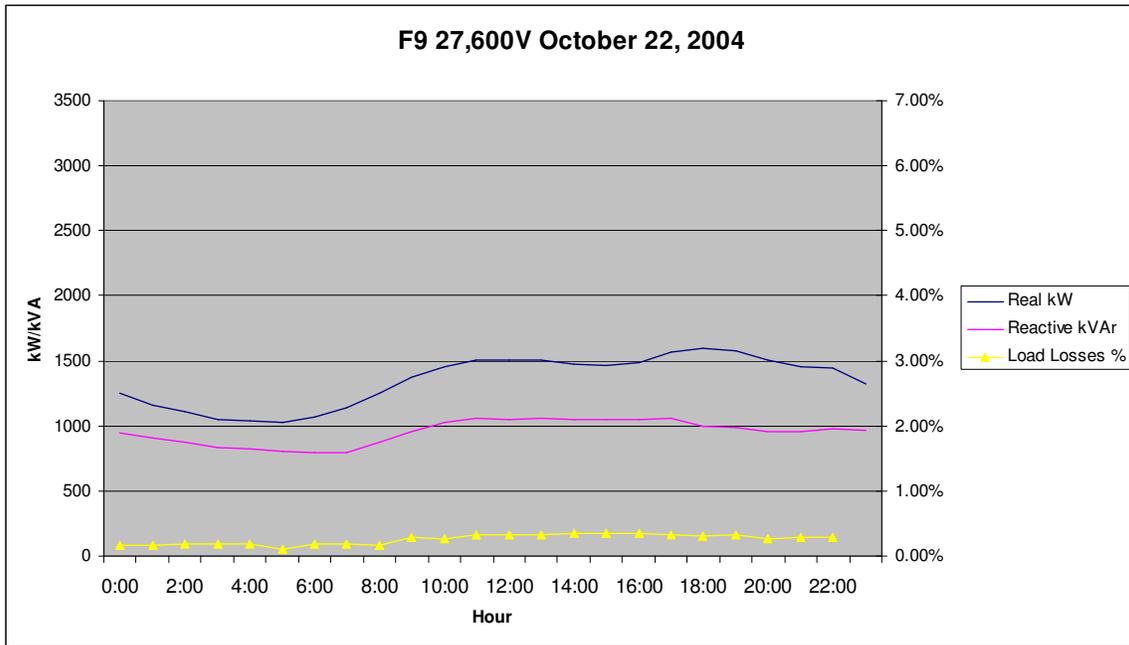


Figure 4  
F9 27,600 V Model Equivalent, Adjusted to Match 10:00 AM Currents

The analysis shows that, for the 24 hour period modeled, on the 4,160 V system, 32,410 kWh were delivered, of which 1,249 kWh were losses, while on the equivalent 27,600 V system, 32,366 kWh were delivered, but losses were only 85 kWh. This is a decrease from 3.85% losses to 0.26% losses over the 24 hours.

A recording ammeter was installed to collect load data for F9. The period of recorded data runs from 3: PM (1500) on December 21 through 9:00 AM (0900) on December 23. The 24 hour period for December 22 was modeled and compared to the recorded values. Figures 5, 6 and 7 show the currents measured and modeled. The modeled energy and losses are shown in figures 8 and 9.

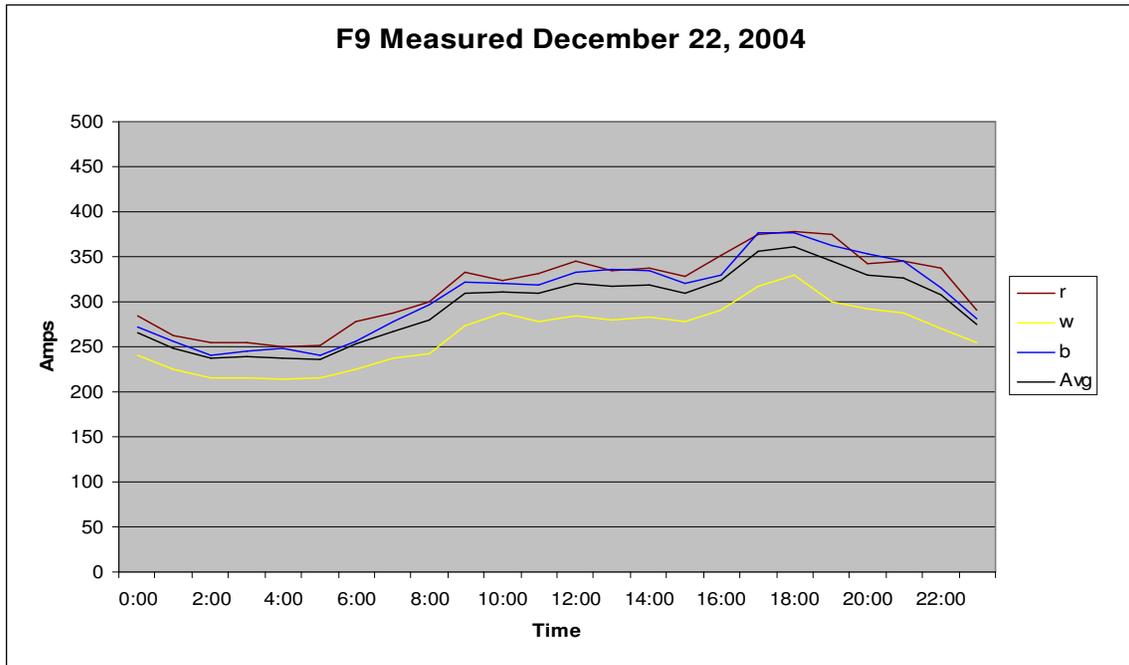


Figure 5  
F9 4,160 V Measured Current December 22, 2004

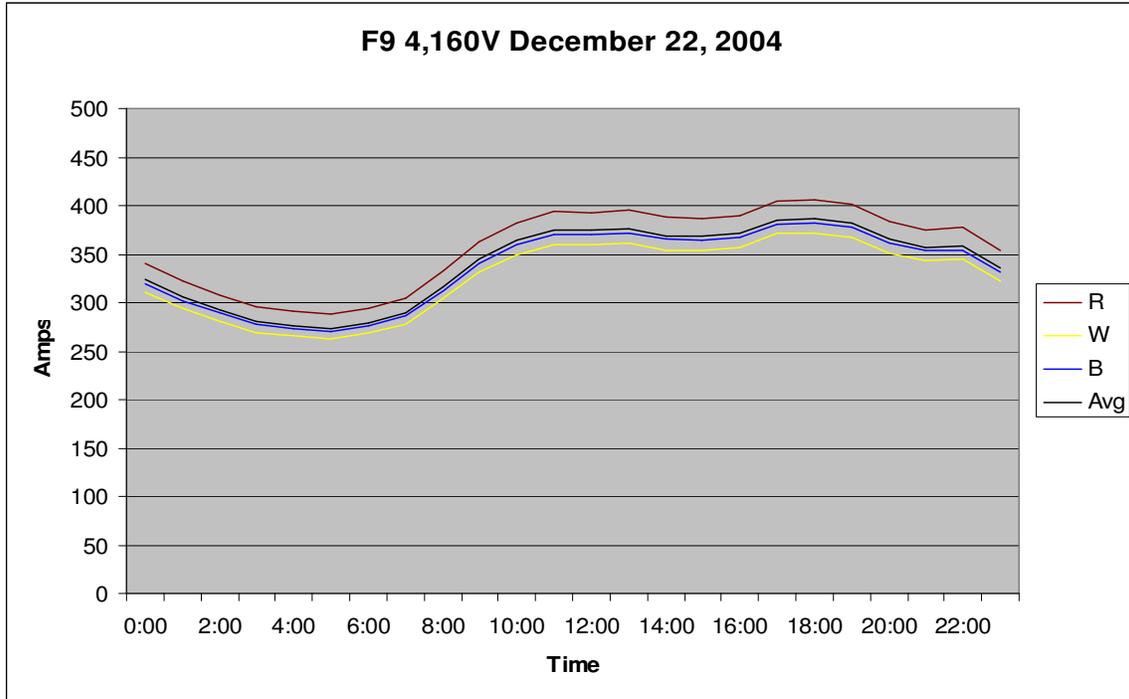


Figure 6  
F9 4,160 V Modeled Current December 22, 2004

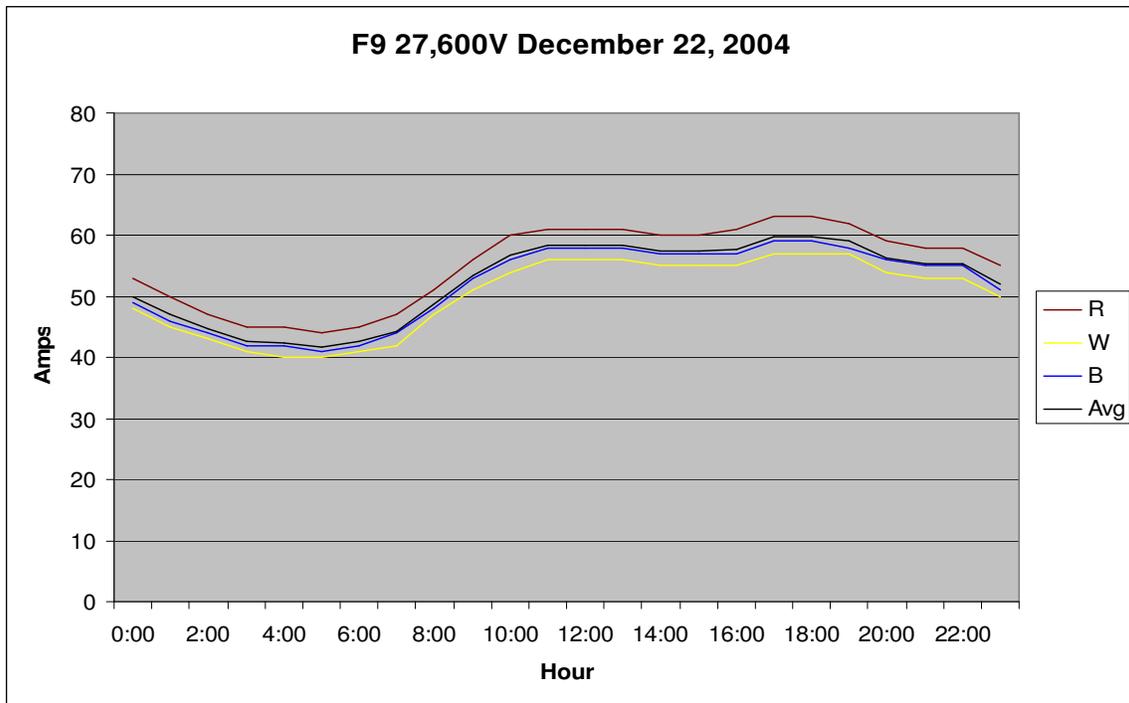


Figure 7  
F9 27,600 V Modeled Current December 22, 2004

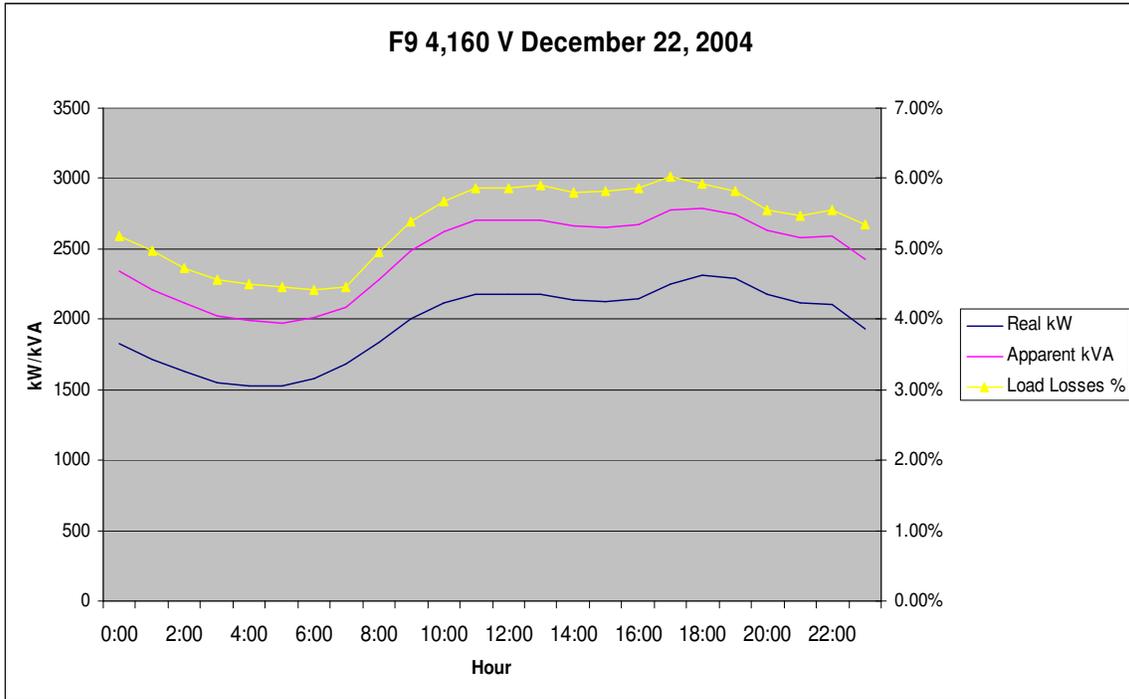


Figure 8  
 F9 4,160 V Modeled Energy and Loss December 22, 2004

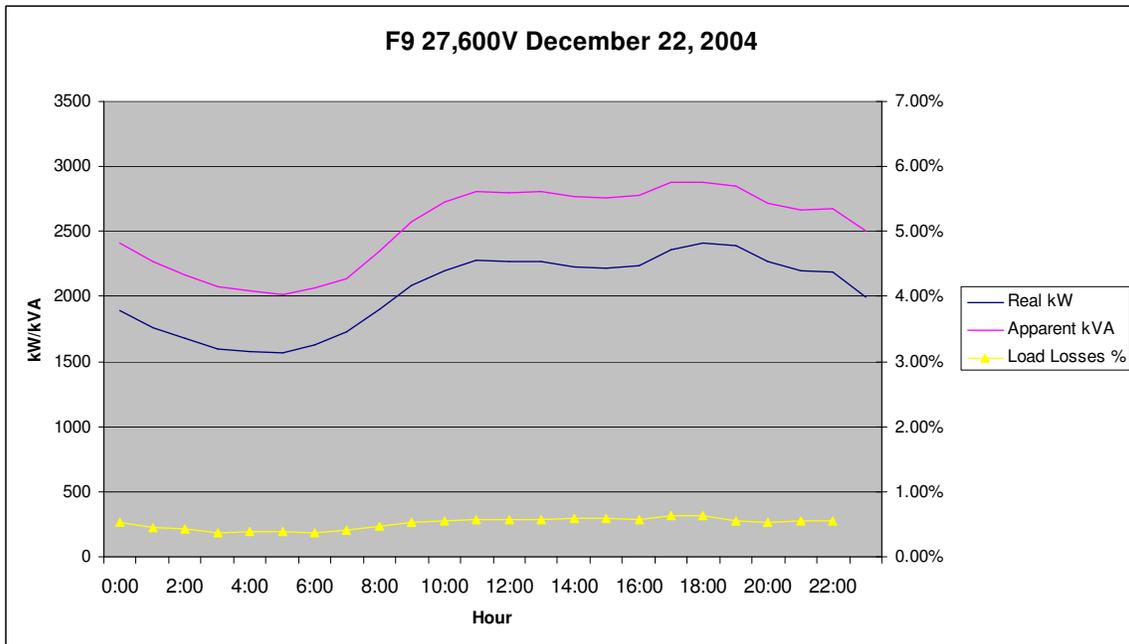


Figure 9  
 F9 27,600 V Modeled Energy and Loss December 22, 2004

The analysis shows that, for the 24 hour period of December 22, 2004, on the 4,160 V system model, 41,191 kWh were delivered, of which 1,969 kWh were losses, while on the equivalent 27,600 V system, 42,552 kWh were delivered, but losses were only 193 kWh. This is a decrease from 4.78% losses to 0.42% losses over the 24 hours.

The average current over the 24 hour period of December 22, 2004 for the measured and modeled cases is fairly well correlated. This is shown in Figure 10. The modeled average current has a slightly flatter curve over the 24 hour period than the measured values.

The individual phase currents are shown in Figures 5 and 6. The measured phase currents have a larger dispersion between phases than the model provides. To assess the affects of this, the model was run using a method which adjusts the resulting currents to closely match the measured phase currents. This was done for 08:00 where the average currents are very closely aligned. The results are as follows:

R	W	B	Avg	
300	242	297	280	Measured data
300	240	298	279	Data Adjusted Model
294	268	275	279	Model

The impact of this adjustment on the energy delivered and loss sustained is:

Hour	Delivered		Load Losses		
	kW		kW	%	
8:00	1608		71	4.42%	Data Adjusted Model
	1606		70	4.36%	Model

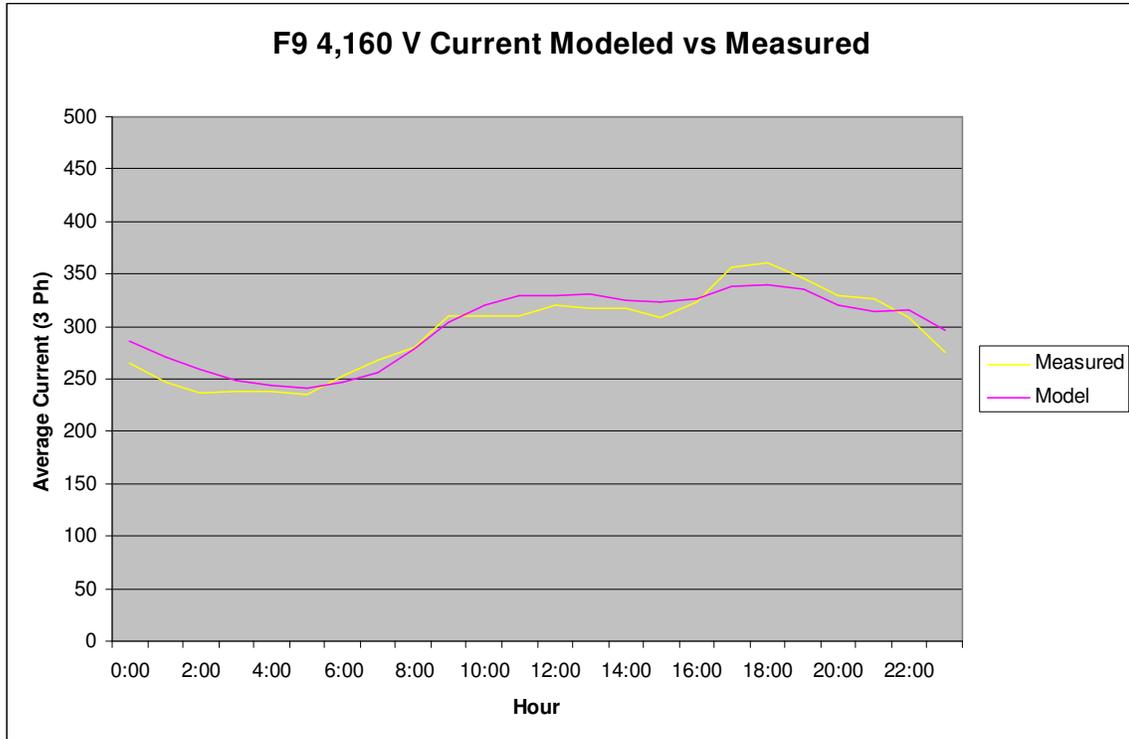


Figure 10  
F9 Average Current Modeled vs. Measured

The above analysis indicates that the model is a fair representation of the system.

The October 22 analysis results in a peak transformer loading of 1,952 kVA. This is 39% of the 5,000 kVA rating. The December 22 analysis produces a peak loading of 2,449 kVA which is 49% of transformer rating. Two further analyses were performed to provide a range of coverage of supply transformer loading. A low load scenario was run at 30% of supply transformer rating. This drops the 27,600 V line loss below 1 kW. The second scenario increased load until the 120 V secondary voltage dropped to 108 V along King Street East. This resulted in a 2,967 kVA load on the supply transformer, 59% of rating. These results are shown in Figures 11 through 18.

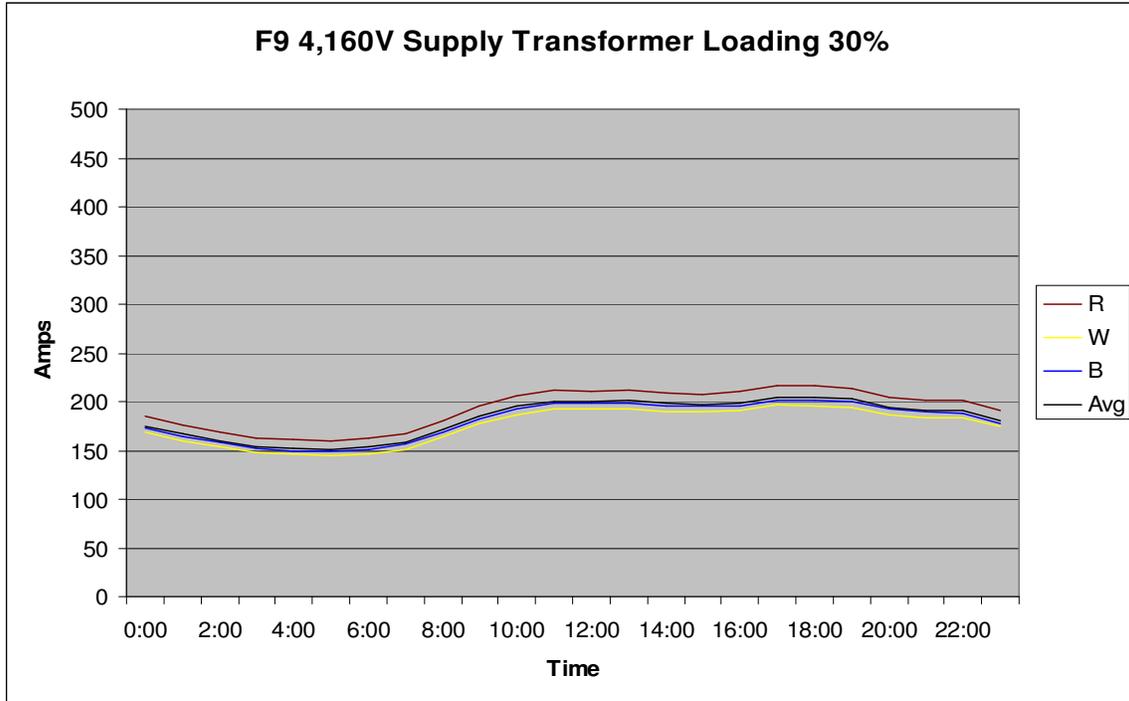


Figure 11  
F9 4,160 Current at 30% Transformer Loading

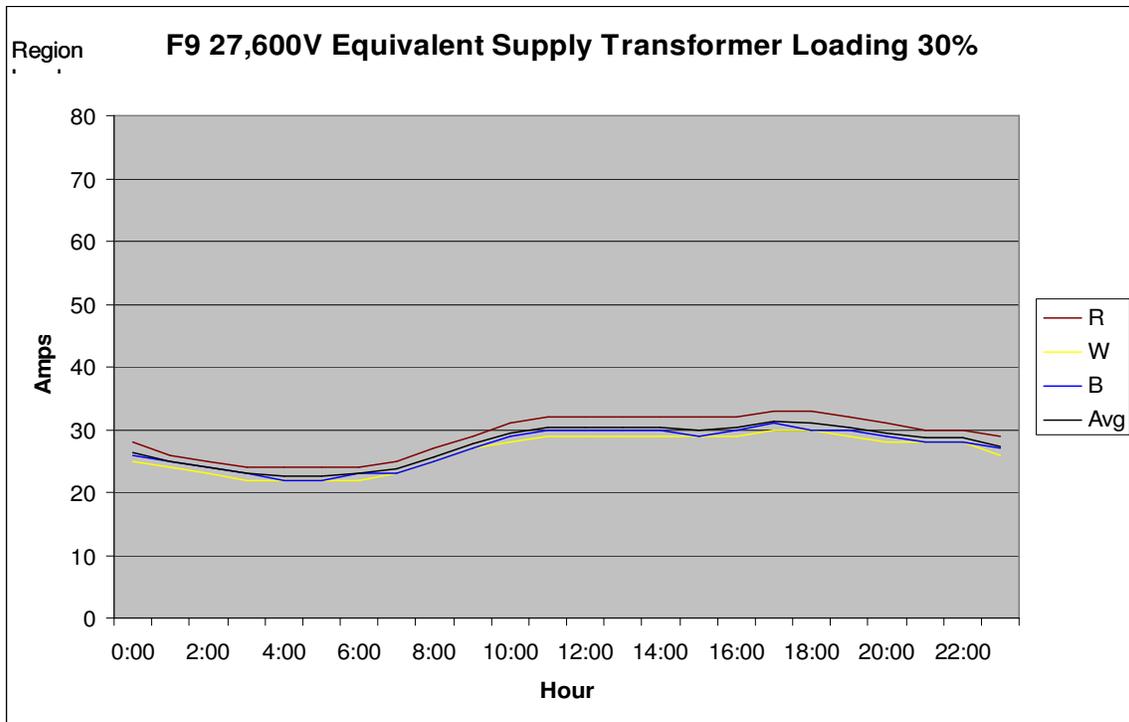


Figure 12  
F9 27,600 Current at Equivalent 30% Transformer Loading

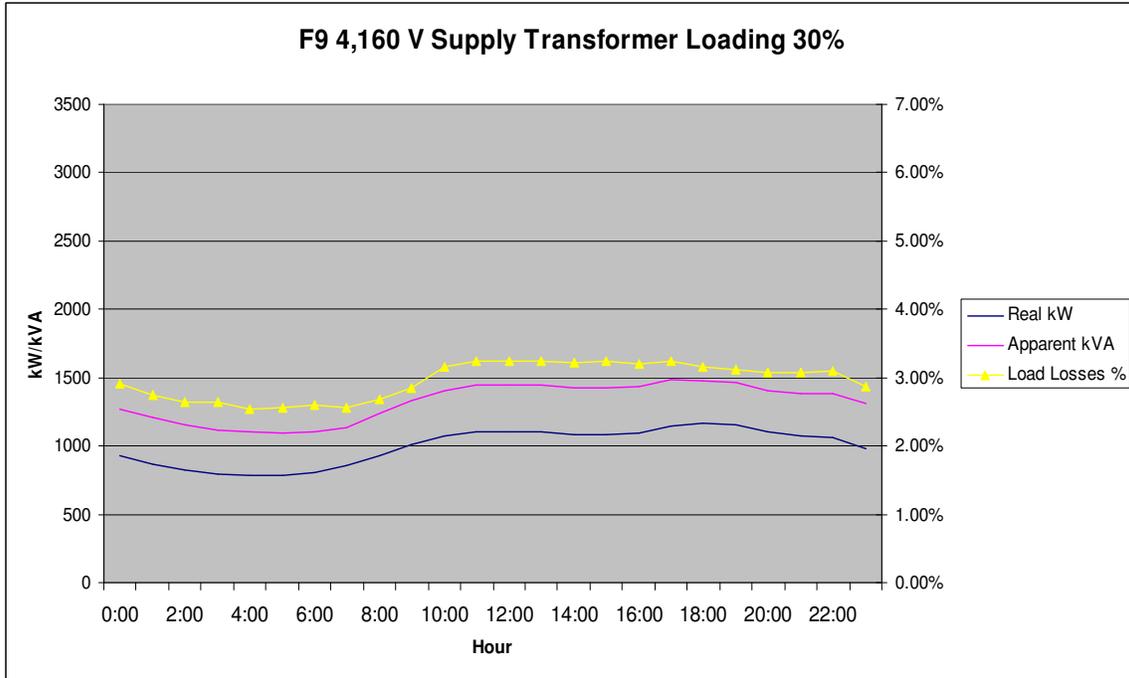


Figure 13  
 F9 4,160 Load and Loss at 30% Transformer Loading

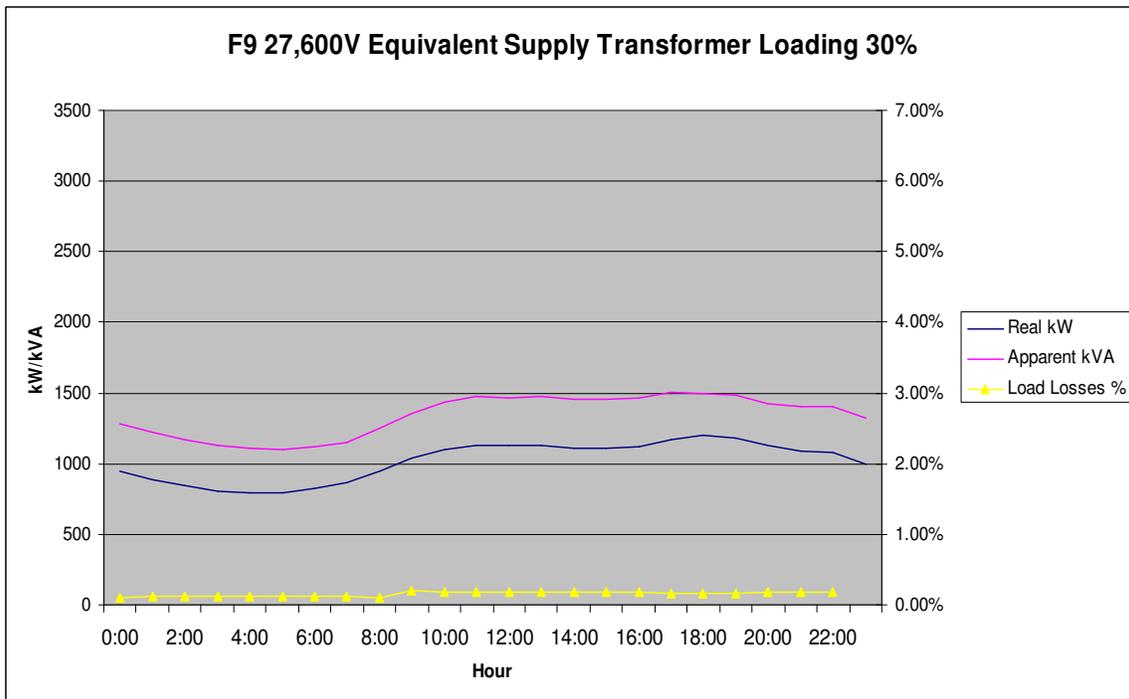


Figure 14  
 F9 27,600 Load and Loss at Equivalent 30% Transformer Loading

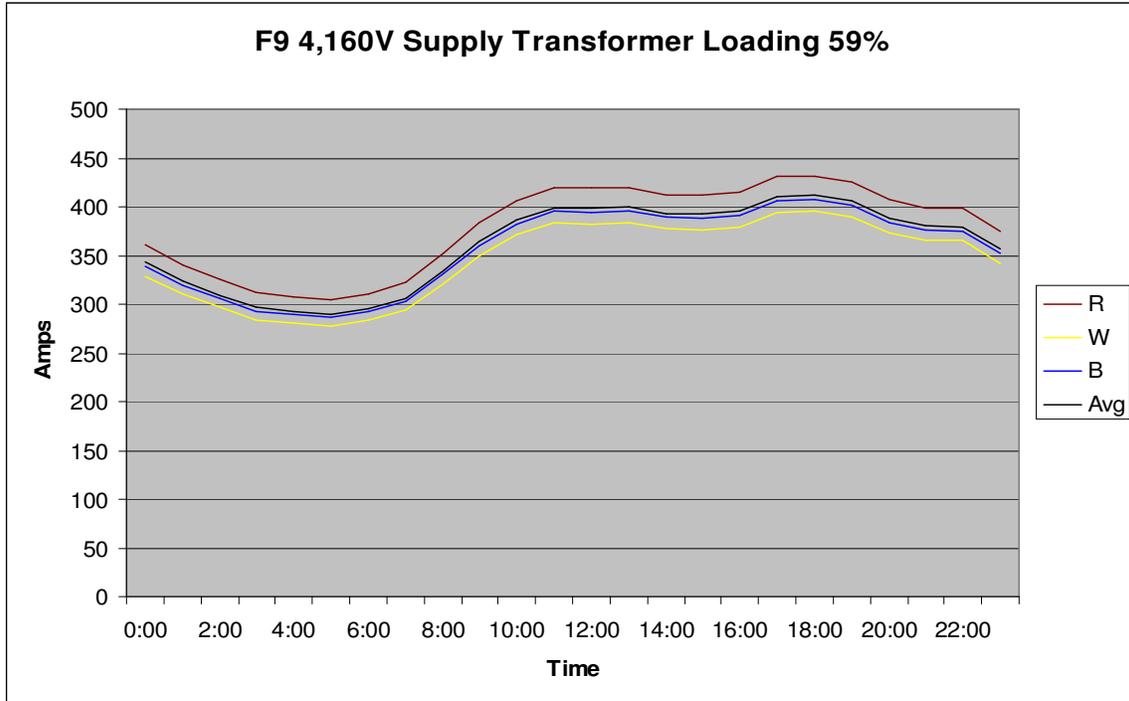


Figure 15  
F9 4,160 Current at 59% Transformer Loading

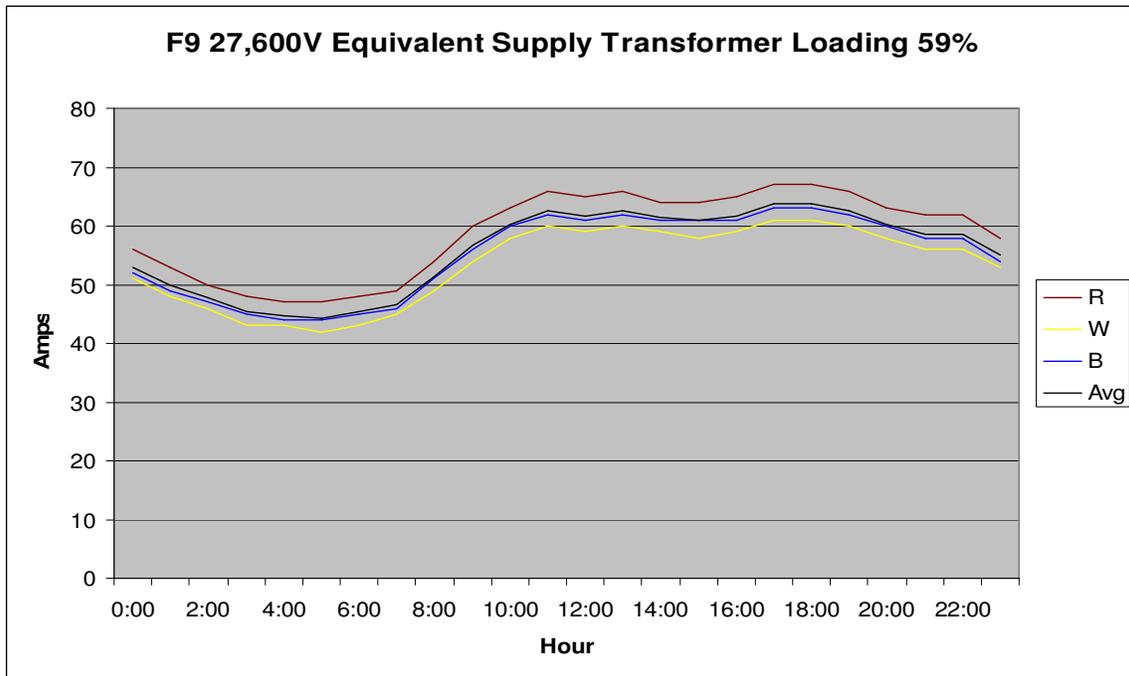


Figure 16  
F9 27,600 Current at Equivalent 59% Transformer Loading

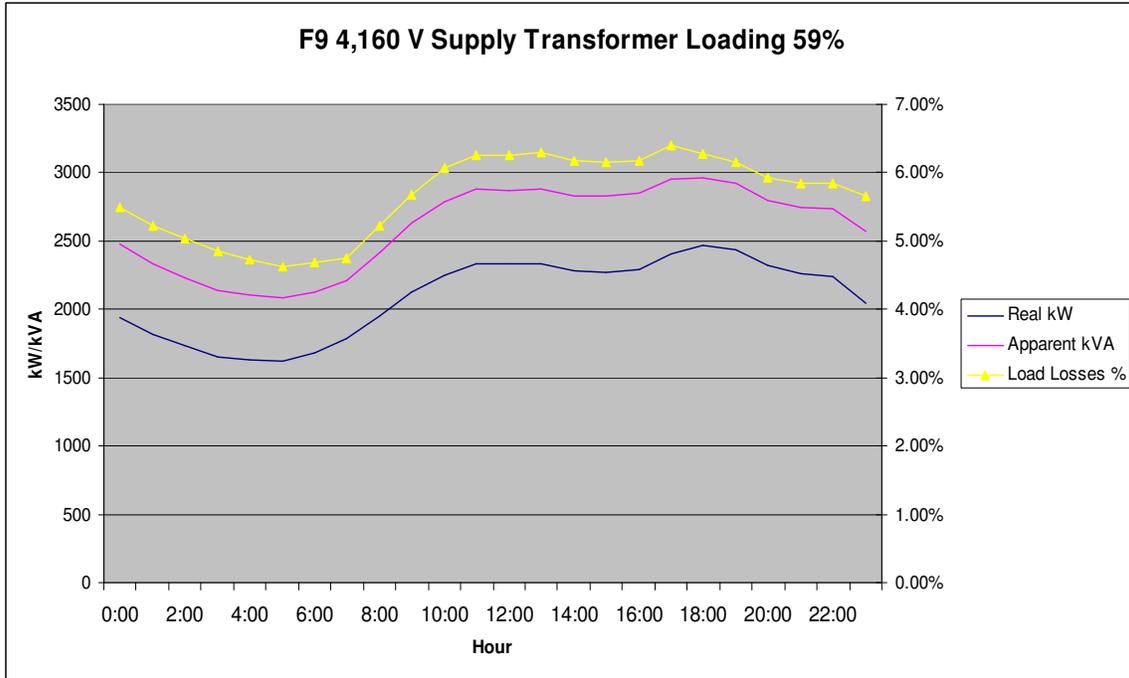


Figure 17  
 F9 4,160 Load and Loss at 59% Transformer Loading

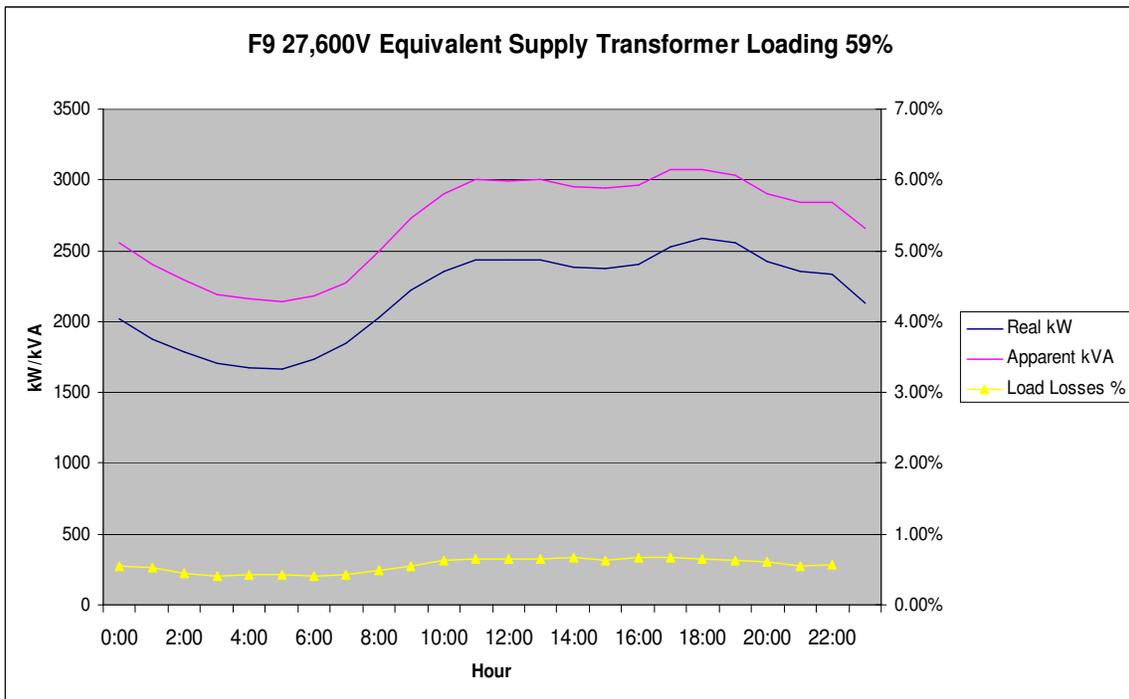


Figure 18  
 F9 27,600 Load and Loss at Equivalent 30% Transformer Loading

The four supply transformer loading scenarios are summarized in Figure 19. This graph plots the peak kW and kVA delivered and the losses associated with that supply level. Figure 20 plots the 24 hour energy delivered and associated losses for each of the four supply levels in figure 19. These graphs can be used to estimate the level of losses associated with any system peak loading within range of the study.

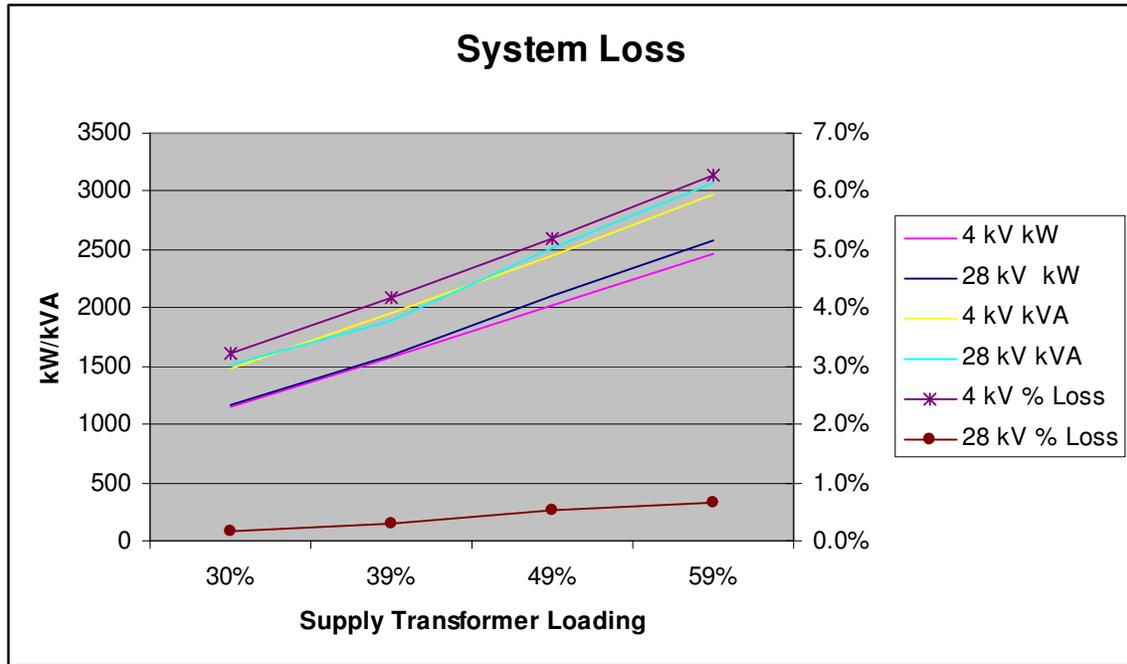


Figure 19  
Peak Loss vs. Supply Transformer Loading

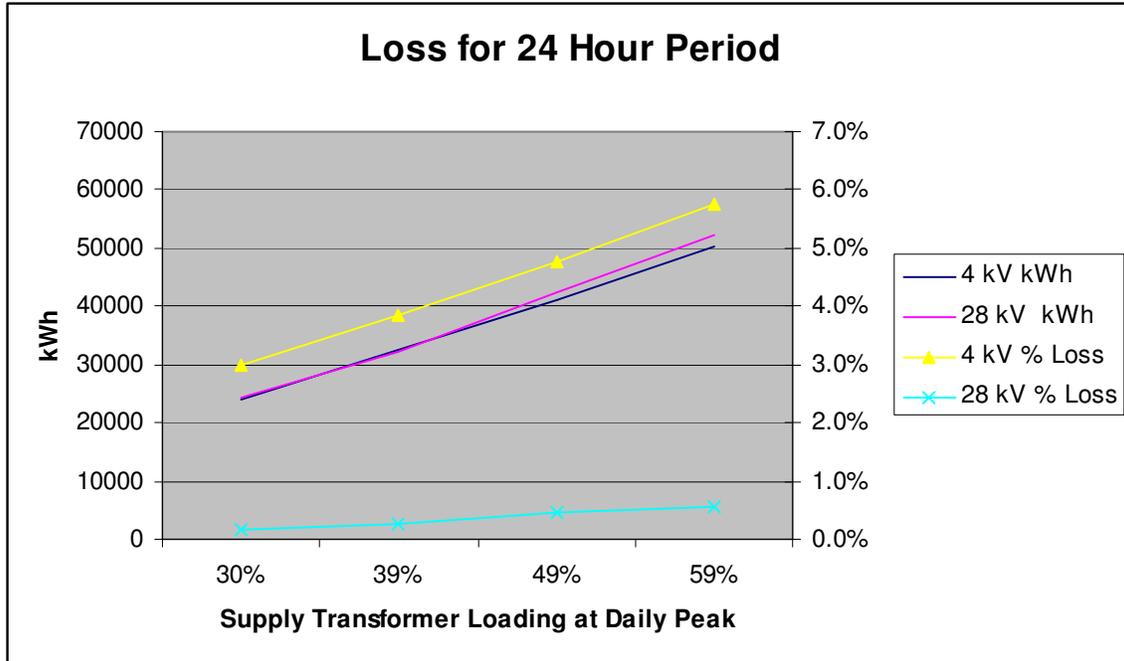


Figure 20  
Energy Loss vs. Peak Transformer Loading

The above analysis demonstrates that voltage conversion of the F9 feeder from 4,160 V to 27,600 V will provide a range of loss reduction from just less than 3% for light load conditions to approximately 5% for more heavily loaded conditions.

## 27,600 V and 44,000 V Systems

The 27,600 V supply for the voltage conversion is from MS 28-1 through feeder F2. This feeder runs east from MS 28-1, along the railway right-of-way and south on Darcy Street past MS 2. The feeder length between the two stations is less than 2 km. This feeder is lightly loaded. The supply transformer at MS 28-1 is 20 MVA, 44 kV/27.6 kV. This transformer is also lightly loaded.

The 44,000 V supply to MS 2 and MS 28-1 stations is from the same 44,000 V feeder. This feeder runs from Highway 2, south near West Street, to the railroad. It then splits into two legs. One leg runs west to MS 28-1, the other east and south to MS 2. These runs are approximately 1 km in length with the run to MS 28-1 being less than 0.5 km longer than the leg to MS 2.

Based on the expected minimal impact that the total F9 load would have on the F2 losses and the minor changes to the 44,000 V system, no further upstream modeling was considered necessary; impacts were judged to be not material.

## Conclusion

The validation process used to compare actual current measurements on F9 to the results of the model scenarios confirms that the model results are robust. To obtain greater accuracy would require the following:

- measurement and data collection of each individual load on F9;
- identification of transformer tap settings for all distribution transformers on F9;
- identification of distribution transformer characteristics;
- 365 day, hourly load profile for F9;
- identification of all load points on F2;
- measurement and data collection of each individual load on F2;
- transformer characteristics for F2;
- 365 day, hourly load profile for F9;
- similar data as above pertaining to the 44,000 V feeder

For the purposes of this analysis, the models are sufficiently accurate to estimate the loss reduction from a voltage conversion of F9 to 27600 V.

As the charts and analysis illustrate, there are significant line loss savings which would result from voltage conversion to 27,600 V for feeder F9. The range of line loss reduction (3% - 5%) translates into 35 to 105 kW savings. This would impact the demand charges to Lakefront Utilities. Associated with this is the energy savings which amount to 700 – 2000 kWh per day. At an average value of 1,500 kWh per day this translates into 547,000 kWh per year. At the current artificially low price of 4.7 cents/kWh this represents a savings of \$25,700 each year.

In addition to the above savings, other, non-monetary benefits arise from a voltage conversion to 27,600 V. One of the supplemental benefits is the improvement in voltage support to the customers. On a feeder the length of F9, there will be no appreciable voltage drop between the supply point and the last customer at line end.

## Recommendations

Based on the result of this study, it is recommended that Lakefront Utilities Inc:

- investigates the benefits of voltage conversion of F9 to 27,600 V against system investment required to complete the conversion;
- use this analysis as support for the system optimization aspects of your Conservation and Demand Management Plan;
- consider the analysis contained in this report as the foundation for reporting results to the Ontario Energy Board;
- continue to explore other loss mitigation opportunities, and
- continue to expand the model in this analysis to other portions of the distribution system to uncover other system optimization opportunities.

## **Appendix 1 – 4,160 V System Model**

## **Appendix 2 – 27,600 V System Model**

## Appendix 3 – Model October 22, 2004

F9-0 to F9-2 4160V					50%, 50% Scaling 10 deg C					F9-1 to F9-2 27,600 kV				
Hour	R	W	B	Avg	Amps	Hour	R	W	B	Avg	Amps			
0:00	242	220	226	229		0:00	33	32	32	32				
1:00	229	209	214	217		1:00	31	30	30	30				
2:00	220	200	205	208		2:00	30	28	29	29				
3:00	211	192	197	200		3:00	29	27	27	28				
4:00	208	189	195	197		4:00	28	27	27	27				
5:00	206	187	192	195		5:00	28	26	27	27				
6:00	210	191	196	199		6:00	28	27	27	27				
7:00	217	197	203	206		7:00	30	28	28	29				
8:00	236	215	221	224		8:00	33	31	31	32				
9:00	256	233	239	243		9:00	36	34	34	35				
10:00	270	246	253	256		10:00	38	36	36	37				
11:00	278	253	260	264		11:00	39	37	37	38				
12:00	277	253	260	263		12:00	39	37	37	38				
13:00	278	253	261	264		13:00	39	37	37	38				
14:00	273	249	257	260		14:00	39	37	37	38				
15:00	273	249	256	259		15:00	39	36	37	37				
16:00	275	251	258	261		16:00	39	37	37	38				
17:00	285	260	267	271		17:00	40	38	38	39				
18:00	285	260	267	271		18:00	40	38	38	39				
19:00	281	257	263	267		19:00	40	38	38	39				
20:00	270	246	253	256		20:00	38	36	36	37				
21:00	264	241	248	251		21:00	37	35	35	36				
22:00	265	242	249	252		22:00	37	35	36	36				
23:00	250	228	234	237		23:00	35	33	33	34				

					kVA Max	Transf Loading							
F9		4160V incl 44kV/4160V Transf			1,952	39%		Region Load Losses		Distribution Transformer			
		Region Load							No				
Hour	Real kW	Reactive kVAr	Apparent kVA	pf	Real kW	Reactive kVAr	Apparent kVA	pf	Load Losses kW	Load Losses kW	Load Losses %	kW	
0:00	1258	1076	1,655	0.76	44	95	105	0.42	3	106	3.74%	47	
1:00	1176	1039	1,569	0.75	40	85	94	0.43	2	106	3.57%	42	
2:00	1121	1003	1,504	0.75	36	78	86	0.42	2	106	3.39%	38	
3:00	1071	968	1,444	0.74	33	72	79	0.42	2	106	3.27%	35	
4:00	1056	957	1,425	0.74	33	70	77	0.43	2	106	3.31%	35	
5:00	1050	939	1,409	0.75	32	69	76	0.42	2	106	3.24%	34	
6:00	1090	934	1,435	0.76	33	71	78	0.42	2	106	3.21%	35	
7:00	1156	929	1,483	0.78	35	76	84	0.42	2	106	3.20%	37	
8:00	1262	1008	1,615	0.78	42	90	99	0.42	3	106	3.57%	45	
9:00	1376	1085	1,752	0.79	49	106	117	0.42	3	106	3.78%	52	
10:00	1450	1145	1,848	0.78	55	118	130	0.42	4	106	4.07%	59	
11:00	1496	1175	1,902	0.79	58	125	138	0.42	4	106	4.14%	62	
12:00	1496	1170	1,899	0.79	58	125	138	0.42	4	106	4.14%	62	
13:00	1496	1179	1,905	0.79	59	126	139	0.42	4	106	4.21%	63	
14:00	1465	1168	1,874	0.78	57	122	135	0.42	4	106	4.16%	61	
15:00	1461	1168	1,870	0.78	56	121	133	0.42	4	106	4.11%	60	
16:00	1476	1172	1,885	0.78	57	123	136	0.42	4	106	4.13%	61	
17:00	1547	1189	1,951	0.79	61	132	145	0.42	5	106	4.27%	66	
18:00	1585	1139	1,952	0.81	61	132	145	0.42	5	106	4.16%	66	
19:00	1567	1121	1,927	0.81	60	129	142	0.42	4	106	4.08%	64	
20:00	1494	1090	1,849	0.81	55	118	130	0.42	4	106	3.95%	59	
21:00	1494	1090	1,849	0.81	55	118	130	0.42	4	106	3.95%	59	
22:00	1444	1106	1,819	0.79	53	114	126	0.42	4	106	3.95%	57	
23:00	1323	1090	1,714	0.77	47	102	112	0.42	3	106	3.78%	50	
	32,410				1,169				80		3.85%	1,249	

Feeder Voltage Conversion Loss Assessment  
Lakefront Utilities Inc.

Hour	Region Load				Region Load Losses				Distribution Transformer No			
	Real kW	Reactive kVAr	Apparent kVA	pf	Real kW	Reactive kVAr	Apparent kVA	pf	Load Losses kW	Load Losses kW	Load Losses %	Load Losses kW
0:00	1251	947	1,569	0.80	0	1	1	0.00	2	56	0.16%	2
1:00	1163	908	1,475	0.79	0	1	1	0.00	2	56	0.17%	2
2:00	1106	870	1,407	0.79	0	1	1	0.00	2	56	0.18%	2
3:00	1052	833	1,342	0.78	0	1	1	0.00	2	56	0.19%	2
4:00	1037	821	1,323	0.78	0	1	1	0.00	2	56	0.19%	2
5:00	1030	802	1,305	0.79	0	1	1	0.00	1	56	0.10%	1
6:00	1073	796	1,336	0.80	0	1	1	0.00	2	56	0.19%	2
7:00	1142	792	1,390	0.82	0	1	1	0.00	2	56	0.18%	2
8:00	1256	877	1,532	0.82	0	1	1	0.00	2	56	0.16%	2
9:00	1377	961	1,679	0.82	1	2	2	0.45	3	56	0.29%	4
10:00	1458	1027	1,783	0.82	1	2	2	0.45	3	56	0.27%	4
11:00	1508	1058	1,842	0.82	1	2	2	0.45	4	56	0.33%	5
12:00	1506	1048	1,835	0.82	1	2	2	0.45	4	56	0.33%	5
13:00	1506	1059	1,841	0.82	1	2	2	0.45	4	56	0.33%	5
14:00	1474	1050	1,810	0.81	1	2	2	0.45	4	56	0.34%	5
15:00	1469	1050	1,806	0.81	1	2	2	0.45	4	56	0.34%	5
16:00	1486	1051	1,820	0.82	1	2	2	0.45	4	56	0.34%	5
17:00	1562	1060	1,888	0.83	1	2	2	0.45	4	56	0.32%	5
18:00	1602	998	1,887	0.85	1	2	2	0.45	4	56	0.31%	5
19:00	1582	986	1,864	0.85	1	2	2	0.45	4	56	0.32%	5
20:00	1502	959	1,782	0.84	1	2	2	0.45	3	56	0.27%	4
21:00	1456	956	1,742	0.84	1	2	2	0.45	3	56	0.27%	4
22:00	1448	979	1,748	0.83	1	2	2	0.45	3	56	0.28%	4
23:00	1320	962	1,633	0.81	0	2	2	0.00	3	56	0.23%	3
	32,366				14				71		0.26%	85

## Appendix 4 – Model December 22, 2004

F9-0 to F9-2 4160V					50%, 65.5% Scaling Actual Temp		F9-1 to F9-2 27,600 kV				
Hour	R	W	B	Avg	Amps	Hour	R	W	B	Avg	Amps
0:00	302	275	283	287		0:00	46	42	43	44	
1:00	285	260	267	271		1:00	44	40	41	42	
2:00	273	249	256	259		2:00	42	38	39	40	
3:00	261	238	245	248		3:00	40	36	37	38	
4:00	258	235	241	245		4:00	39	36	37	37	
5:00	254	232	238	241		5:00	39	35	36	37	
6:00	260	237	243	247		6:00	40	36	37	38	
7:00	269	245	252	255		7:00	41	37	38	39	
8:00	294	268	275	279		8:00	45	41	42	43	
9:00	319	292	300	304		9:00	49	45	46	47	
10:00	337	308	316	320		10:00	52	47	49	49	
11:00	347	317	326	330		11:00	54	49	50	51	
12:00	346	316	326	329		12:00	54	49	50	51	
13:00	347	317	327	330		13:00	54	49	50	51	
14:00	341	312	321	325		14:00	53	48	50	50	
15:00	341	311	320	324		15:00	53	48	50	50	
16:00	343	314	323	327		16:00	53	48	50	50	
17:00	356	326	335	339		17:00	55	50	52	52	
18:00	357	326	335	339		18:00	55	50	52	52	
19:00	352	322	331	335		19:00	54	49	51	51	
20:00	337	308	317	321		20:00	52	47	49	49	
21:00	330	302	310	314		21:00	51	46	48	48	
22:00	332	303	311	315		22:00	51	47	48	49	
23:00	312	285	292	296		23:00	48	44	45	46	

					kVA								
					Max	Transf Loading							
F9 4160V incl 44kV/4160V Transf					2,449	49%							
Region Load					Region Load Losses				Distribution Transformer		Total		
Hour	Real kW	Reactive kVAr	Apparent kVA	pf	Real kW	Reactive kVAr	Apparent kVA	pf	Load Losses kW	No Load Losses kW	Load Losses %	Load Losses kW	
0:00	1606	1305	2,069	0.78	69	148	163	0.42	5	106	4.61%	74	
1:00	1498	1257	1,956	0.77	62	132	146	0.43	4	106	4.41%	66	
2:00	1427	1210	1,871	0.76	56	121	133	0.42	4	106	4.20%	60	
3:00	1362	1165	1,792	0.76	52	111	123	0.42	4	106	4.11%	56	
4:00	1340	1149	1,765	0.76	50	108	119	0.42	3	106	3.96%	53	
5:00	1331	1126	1,743	0.76	49	105	116	0.42	3	106	3.91%	52	
6:00	1384	1119	1,780	0.78	51	110	121	0.42	4	106	3.97%	55	
7:00	1470	1113	1,844	0.80	55	118	130	0.42	4	106	4.01%	59	
8:00	1606	1213	2,013	0.80	65	140	154	0.42	5	106	4.36%	70	
9:00	1752	1314	2,190	0.80	77	166	183	0.42	6	106	4.74%	83	
10:00	1846	1390	2,311	0.80	86	185	204	0.42	7	106	5.04%	93	
11:00	1907	1429	2,383	0.80	92	197	217	0.42	7	106	5.19%	99	
12:00	1905	1422	2,377	0.80	91	196	216	0.42	7	106	5.14%	98	
13:00	1905	1434	2,384	0.80	92	197	217	0.42	7	106	5.20%	99	
14:00	1864	1419	2,343	0.80	89	190	210	0.42	7	106	5.15%	96	
15:00	1859	1419	2,339	0.79	88	190	209	0.42	7	106	5.11%	95	
16:00	1877	1424	2,356	0.80	90	192	212	0.42	7	106	5.17%	97	
17:00	1969	1449	2,445	0.81	96	207	228	0.42	8	106	5.28%	104	
18:00	2018	1388	2,449	0.82	97	208	230	0.42	8	106	5.20%	105	
19:00	1996	1363	2,417	0.83	94	202	223	0.42	8	106	5.11%	102	
20:00	1901	1320	2,314	0.82	86	186	205	0.42	7	106	4.89%	93	
21:00	1847	1313	2,266	0.82	83	178	196	0.42	7	106	4.87%	90	
22:00	1839	1341	2,276	0.81	83	179	197	0.42	7	106	4.89%	90	
23:00	1682	1319	2,137	0.79	74	158	174	0.42	6	106	4.76%	80	
41,191					1,827				142		4.78%		1,969

Feeder Voltage Conversion Loss Assessment  
Lakefront Utilities Inc.

Hour	Region Load				Region Load Losses				Distribution Transformer		Total	
	Real kW	Reactive kVAr	Apparent kVA	pf	Real kW	Reactive kVAr	Apparent kVA	pf	Load Losses kW	No Load Losses kW	Load Losses %	Load Losses kW
0:00	1654	1331	2,123	0.78	1	3	3	0.32	6	106	0.42%	7
1:00	1539	1280	2,002	0.77	1	2	2	0.45	5	106	0.39%	6
2:00	1464	1230	1,912	0.77	1	2	2	0.45	4	106	0.34%	5
3:00	1395	1182	1,828	0.76	1	2	2	0.45	4	106	0.36%	5
4:00	1372	1166	1,801	0.76	1	2	2	0.45	4	106	0.36%	5
5:00	1363	1141	1,778	0.77	1	2	2	0.45	4	106	0.37%	5
6:00	1418	1133	1,815	0.78	1	2	2	0.45	4	106	0.35%	5
7:00	1508	1128	1,883	0.80	1	2	2	0.45	4	106	0.33%	5
8:00	1654	1237	2,065	0.80	1	3	3	0.32	5	106	0.36%	6
9:00	1810	1345	2,255	0.80	1	3	3	0.32	7	106	0.44%	8
10:00	1914	1429	2,389	0.80	2	4	4	0.45	8	106	0.52%	10
11:00	1979	1470	2,465	0.80	2	4	4	0.45	8	106	0.51%	10
12:00	1975	1457	2,454	0.80	2	4	4	0.45	8	106	0.51%	10
13:00	1975	1470	2,462	0.80	2	4	4	0.45	8	106	0.51%	10
14:00	1932	1459	2,421	0.80	2	4	4	0.45	8	106	0.52%	10
15:00	1927	1459	2,417	0.80	2	4	4	0.45	8	106	0.52%	10
16:00	1948	1460	2,434	0.80	2	4	4	0.45	8	106	0.51%	10
17:00	2046	1473	2,521	0.81	2	4	4	0.45	9	106	0.54%	11
18:00	2096	1394	2,517	0.83	2	4	4	0.45	9	106	0.52%	11
19:00	2071	1378	2,488	0.83	2	4	4	0.45	8	106	0.48%	10
20:00	1969	1342	2,383	0.83	2	4	4	0.45	8	106	0.51%	10
21:00	1909	1338	2,331	0.82	1	4	4	0.24	7	106	0.42%	8
22:00	1900	1368	2,341	0.81	2	4	4	0.45	7	106	0.47%	9
23:00	1734	1345	2,194	0.79	1	3	3	0.32	6	106	0.40%	7
	42,552				36				157		0.45%	193

## Appendix 5 – Model 30% Supply Transformer Loading

F9-0 to F9-2 4160V 50%, 35% Scaling 15 deg						F9-1 to F9-2 27,600 kV				
Hour	R	W	B	Avg	Amps	Hour	R	W	B	Avg
0:00	185	168	173	175		0:00	28	25	26	26
1:00	176	160	164	167		1:00	26	24	25	25
2:00	169	154	158	160		2:00	25	23	24	24
3:00	163	148	152	154		3:00	24	22	23	23
4:00	161	146	150	152		4:00	24	22	22	23
5:00	160	145	149	151		5:00	24	22	22	23
6:00	162	147	151	153		6:00	24	22	23	23
7:00	167	151	156	158		7:00	25	23	23	24
8:00	181	164	169	171		8:00	27	25	25	26
9:00	195	177	182	185		9:00	29	27	27	28
10:00	206	187	192	195		10:00	31	28	29	29
11:00	212	192	198	201		11:00	32	29	30	30
12:00	211	192	198	200		12:00	32	29	30	30
13:00	212	193	198	201		13:00	32	29	30	30
14:00	209	190	195	198		14:00	32	29	30	30
15:00	208	189	195	197		15:00	32	29	29	30
16:00	210	191	196	199		16:00	32	29	30	30
17:00	216	197	202	205		17:00	33	30	31	31
18:00	216	196	202	205		18:00	33	30	30	31
19:00	213	194	200	202		19:00	32	29	30	30
20:00	205	187	192	195		20:00	31	28	29	29
21:00	202	183	189	191		21:00	30	28	28	29
22:00	202	183	188	191		22:00	30	28	28	29
23:00	191	174	178	181		23:00	29	26	27	27

4160V incl 44kV/4160V  
 F9 Transf

kVA Max 1,482  
 Transf Loading 30%

Hour	Region Load				Region Load Losses				Distribution Transformer		Total	
	Real kW	Reactive kVAr	Apparent kVA	pf	Real kW	Reactive kVAr	Apparent kVA	pf	Load Losses kW	No Load Losses kW	Load Losses %	Load Losses kW
0:00	930	859	1,266	0.73	26	55	61	0.43	1	106	2.90%	27
1:00	871	832	1,205	0.72	23	50	55	0.42	1	106	2.76%	24
2:00	831	806	1,158	0.72	21	46	51	0.42	1	106	2.65%	22
3:00	796	781	1,115	0.71	20	43	47	0.42	1	106	2.64%	21
4:00	785	773	1,102	0.71	19	42	46	0.41	1	106	2.55%	20
5:00	781	761	1,090	0.72	19	41	45	0.42	1	106	2.56%	20
6:00	810	757	1,109	0.73	20	42	47	0.43	1	106	2.59%	21
7:00	857	753	1,141	0.75	21	45	50	0.42	1	106	2.57%	22
8:00	933	810	1,236	0.76	24	53	58	0.41	1	106	2.68%	25
9:00	1015	866	1,334	0.76	28	62	68	0.41	1	106	2.86%	29
10:00	1073	912	1,408	0.76	32	69	76	0.42	2	106	3.17%	34
11:00	1108	934	1,449	0.76	34	73	81	0.42	2	106	3.25%	36
12:00	1108	930	1,447	0.77	34	72	80	0.43	2	106	3.25%	36
13:00	1108	936	1,450	0.76	34	73	81	0.42	2	106	3.25%	36
14:00	1086	929	1,429	0.76	33	71	78	0.42	2	106	3.22%	35
15:00	1082	929	1,426	0.76	33	70	77	0.43	2	106	3.23%	35
16:00	1093	931	1,436	0.76	33	71	78	0.42	2	106	3.20%	35
17:00	1144	942	1,482	0.77	35	76	84	0.42	2	106	3.23%	37
18:00	1170	904	1,479	0.79	35	76	84	0.42	2	106	3.16%	37
19:00	1157	893	1,462	0.79	34	74	81	0.42	2	106	3.11%	36
20:00	1104	871	1,406	0.79	32	68	75	0.43	2	106	3.08%	34
21:00	1073	868	1,380	0.78	31	66	73	0.43	2	106	3.08%	33
22:00	1063	881	1,381	0.77	31	66	73	0.43	2	106	3.10%	33
23:00	977	869	1,308	0.75	27	59	65	0.42	1	106	2.87%	28
	23,955				679				37		2.99%	716

Feeder Voltage Conversion Loss Assessment  
Lakefront Utilities Inc.

Hour	Region Load				Region Load Losses				Distribution Transformer		Total	
	Real kW	Reactive kVAr	Apparent kVA	pf	Real kW	Reactive kVAr	Apparent kVA	pf	Load Losses kW	No Load Losses kW	Load Losses %	Load Losses kW
0:00	945	865	1,281	0.74	0	1	1	0.00	1	106	0.11%	1
1:00	884	838	1,218	0.73	0	1	1	0.00	1	106	0.11%	1
2:00	843	811	1,170	0.72	0	1	1	0.00	1	106	0.12%	1
3:00	806	785	1,125	0.72	0	0	-	#DIV/0!	1	106	0.12%	1
4:00	795	777	1,112	0.72	0	0	-	#DIV/0!	1	106	0.13%	1
5:00	791	764	1,100	0.72	0	0	-	#DIV/0!	1	106	0.13%	1
6:00	821	759	1,118	0.73	0	0	-	#DIV/0!	1	106	0.12%	1
7:00	869	757	1,152	0.75	0	0	-	#DIV/0!	1	106	0.12%	1
8:00	949	817	1,252	0.76	0	1	1	0.00	1	106	0.11%	1
9:00	1034	875	1,355	0.76	0	1	1	0.00	2	106	0.19%	2
10:00	1095	924	1,433	0.76	0	1	1	0.00	2	106	0.18%	2
11:00	1131	946	1,474	0.77	0	1	1	0.00	2	106	0.18%	2
12:00	1130	940	1,470	0.77	0	1	1	0.00	2	106	0.18%	2
13:00	1130	947	1,474	0.77	0	1	1	0.00	2	106	0.18%	2
14:00	1108	942	1,454	0.76	0	1	1	0.00	2	106	0.18%	2
15:00	1104	941	1,451	0.76	0	1	1	0.00	2	106	0.18%	2
16:00	1116	942	1,460	0.76	0	1	1	0.00	2	106	0.18%	2
17:00	1169	948	1,505	0.78	0	1	1	0.00	2	106	0.17%	2
18:00	1196	905	1,500	0.80	0	1	1	0.00	2	106	0.17%	2
19:00	1181	896	1,482	0.80	0	1	1	0.00	2	106	0.17%	2
20:00	1126	877	1,427	0.79	0	1	1	0.00	2	106	0.18%	2
21:00	1093	875	1,400	0.78	0	1	1	0.00	2	106	0.18%	2
22:00	1083	888	1,401	0.77	0	1	1	0.00	2	106	0.18%	2
23:00	993	876	1,324	0.75	0	1	1	0.00	1	106	0.10%	1
	24,392				-				38		0.16%	38

## Appendix 6 – Model 59% Supply Transformer Loading

F9-0 to F9-2 4160V					50%, 80% Scaling 15 deg	F9-1 to F9-2 27,600 kV					
Hour	R	W	B	Avg	Amps	Hour	R	W	B	Avg	Amps
0:00	361	329	339	343		0:00	56	51	52	53	
1:00	341	311	320	324		1:00	53	48	49	50	
2:00	326	297	306	310		2:00	50	46	47	48	
3:00	312	284	293	296		3:00	48	43	45	45	
4:00	308	281	289	293		4:00	47	43	44	45	
5:00	304	277	286	289		5:00	47	42	44	44	
6:00	311	283	292	295		6:00	48	43	45	45	
7:00	322	294	303	306		7:00	49	45	46	47	
8:00	352	321	331	335		8:00	54	49	51	51	
9:00	383	350	360	364		9:00	60	54	56	57	
10:00	406	371	382	386		10:00	63	58	60	60	
11:00	419	383	395	399		11:00	66	60	62	63	
12:00	419	382	394	398		12:00	65	59	61	62	
13:00	420	384	396	400		13:00	66	60	62	63	
14:00	412	377	389	393		14:00	64	59	61	61	
15:00	412	376	388	392		15:00	64	58	61	61	
16:00	415	379	391	395		16:00	65	59	61	62	
17:00	431	394	406	410		17:00	67	61	63	64	
18:00	432	395	407	411		18:00	67	61	63	64	
19:00	426	390	401	406		19:00	66	60	62	63	
20:00	408	373	384	388		20:00	63	58	60	60	
21:00	399	365	376	380		21:00	62	56	58	59	
22:00	399	365	375	380		22:00	62	56	58	59	
23:00	374	342	352	356		23:00	58	53	54	55	

4160V incl 44kV/4160V  
 F9 Transf      kVA Max      Transf Loading  
    2,967      59%

Hour	Region Load				Region Load Losses				Distribution Transformer		Total	
	Real kW	Reactive kVAr	Apparent kVA	pf	Real kW	Reactive kVAr	Apparent kVA	pf	Load Losses kW	No Load Losses kW	Load Losses %	Load Losses kW
0:00	1946	1528	2,474	0.79	99	212	234	0.42	8	106	5.50%	107
1:00	1816	1471	2,337	0.78	88	189	208	0.42	7	106	5.23%	95
2:00	1730	1413	2,234	0.77	81	173	191	0.42	6	106	5.03%	87
3:00	1651	1358	2,138	0.77	74	159	175	0.42	6	106	4.85%	80
4:00	1628	1341	2,109	0.77	72	154	170	0.42	5	106	4.73%	77
5:00	1619	1314	2,085	0.78	70	151	166	0.42	5	106	4.63%	75
6:00	1683	1306	2,130	0.79	73	158	174	0.42	6	106	4.69%	79
7:00	1789	1298	2,210	0.81	79	169	187	0.42	6	106	4.75%	85
8:00	1954	1420	2,415	0.81	94	202	223	0.42	8	106	5.22%	102
9:00	2130	1541	2,629	0.81	112	240	265	0.42	9	106	5.68%	121
10:00	2255	1639	2,788	0.81	126	269	297	0.42	11	106	6.08%	137
11:00	2330	1687	2,877	0.81	134	287	317	0.42	12	106	6.27%	146
12:00	2330	1682	2,874	0.81	134	287	317	0.42	12	106	6.27%	146
13:00	2331	1697	2,883	0.81	135	289	319	0.42	12	106	6.31%	147
14:00	2282	1677	2,832	0.81	130	279	308	0.42	11	106	6.18%	141
15:00	2275	1678	2,827	0.80	129	277	306	0.42	11	106	6.15%	140
16:00	2297	1684	2,848	0.81	131	282	311	0.42	11	106	6.18%	142
17:00	2407	1719	2,958	0.81	142	303	335	0.42	12	106	6.40%	154
18:00	2467	1648	2,967	0.83	142	305	336	0.42	13	106	6.28%	155
19:00	2441	1615	2,927	0.83	138	297	327	0.42	12	106	6.15%	150
20:00	2326	1561	2,801	0.83	127	272	300	0.42	11	106	5.93%	138
21:00	2260	1552	2,742	0.82	122	261	288	0.42	10	106	5.84%	132
22:00	2239	1578	2,739	0.82	121	260	287	0.42	10	106	5.85%	131
23:00	2048	1551	2,569	0.80	107	229	253	0.42	9	106	5.66%	116
	50,234				2,660				223		5.74%	2,883

Feeder Voltage Conversion Loss Assessment  
Lakefront Utilities Inc.

Hour	Region Load				Region Load Losses				Distribution Transformer		Total	
	Real kW	Reactive kVAr	Apparent kVA	pf	Real kW	Reactive kVAr	Apparent kVA	pf	Load Losses kW	No Load Losses kW	Load Losses %	Load Losses kW
0:00	2018	1567	2,555	0.79	2	4	4	0.45	9	106	0.55%	11
1:00	1878	1504	2,406	0.78	2	4	4	0.45	8	106	0.53%	10
2:00	1786	1443	2,296	0.78	1	3	3	0.32	7	106	0.45%	8
3:00	1701	1385	2,194	0.78	1	3	3	0.32	6	106	0.41%	7
4:00	1676	1367	2,163	0.77	1	3	3	0.32	6	106	0.42%	7
5:00	1667	1337	2,137	0.78	1	3	3	0.32	6	106	0.42%	7
6:00	1734	1327	2,184	0.79	1	3	3	0.32	6	106	0.40%	7
7:00	1844	1321	2,268	0.81	1	3	3	0.32	7	106	0.43%	8
8:00	2026	1456	2,495	0.81	2	4	4	0.45	8	106	0.49%	10
9:00	2218	1588	2,728	0.81	2	5	5	0.37	10	106	0.54%	12
10:00	2357	1698	2,905	0.81	3	6	7	0.45	12	106	0.64%	15
11:00	2438	1749	3,000	0.81	3	6	7	0.45	13	106	0.66%	16
12:00	2437	1735	2,992	0.81	3	6	7	0.45	13	106	0.66%	16
13:00	2437	1751	3,001	0.81	3	6	7	0.45	13	106	0.66%	16
14:00	2385	1738	2,951	0.81	3	6	7	0.45	13	106	0.67%	16
15:00	2377	1737	2,944	0.81	3	6	7	0.45	12	106	0.63%	15
16:00	2404	1739	2,967	0.81	3	6	7	0.45	13	106	0.67%	16
17:00	2523	1756	3,074	0.82	3	7	8	0.39	14	106	0.67%	17
18:00	2585	1660	3,072	0.84	3	7	8	0.39	14	106	0.66%	17
19:00	2553	1639	3,034	0.84	3	6	7	0.45	13	106	0.63%	16
20:00	2427	1594	2,904	0.84	3	6	7	0.45	12	106	0.62%	15
21:00	2353	1588	2,839	0.83	2	6	6	0.32	11	106	0.55%	13
22:00	2329	1619	2,836	0.82	2	6	6	0.32	11	106	0.56%	13
23:00	2127	1591	2,656	0.80	2	5	5	0.37	10	106	0.56%	12
	52,280				53				247		0.57%	300

## Appendix 7 – Measured Currents December 22, 2004

Hour	R	W	B	Avg
22/12/2004 0:00	284	240	272	265
22/12/2004 1:00	262	225	256	248
22/12/2004 2:00	255	215	241	237
22/12/2004 3:00	254	216	245	238
22/12/2004 4:00	250	214	248	237
22/12/2004 5:00	251	215	241	236
22/12/2004 6:00	278	225	257	253
22/12/2004 7:00	287	237	278	267
22/12/2004 8:00	300	242	297	280
22/12/2004 9:00	333	273	322	309
22/12/2004 10:00	323	287	321	310
22/12/2004 11:00	332	278	319	310
22/12/2004 12:00	345	285	333	321
22/12/2004 13:00	335	280	336	317
22/12/2004 14:00	337	283	334	318
22/12/2004 15:00	328	278	321	309
22/12/2004 16:00	351	291	330	324
22/12/2004 17:00	375	317	377	356
22/12/2004 18:00	378	330	376	361
22/12/2004 19:00	375	300	362	346
22/12/2004 20:00	342	292	353	329
22/12/2004 21:00	346	288	346	327
22/12/2004 22:00	338	270	315	308
22/12/2004 23:00	290	254	282	275

# APPENDIX V

LUSI GIS Project - Poles...

http://localhost/lusi/g...

LUSI GIS Project - Poles

New Pole

Find Pole Number

Location ID

Number

Owner

Height

Type

Save

Local intranet 100%

Pole Form

LUSI GIS Project - On Poles O...

http://localhost/lusi/g...

LUSI GIS Project - On Pole...

New Pole

Find Pole Number

LocID	Number	Owner	Height	Type
LUI-35		Hydro/Hydro One	other	wood

Edit the pole Return to menu

View Entries	Action
[1]	Add New Circuit
[0]	Add New Switch
[0]	Add New Street Light
[0]	Add New Lightening Arrestor
[0]	Add New Secondary Circuit
[0]	Add New Fiber
[0]	Add New Anchor
[0]	Add New Transformer
[0]	Pole Inspection

Local intranet 100%

Menu for Pole Detail Forms

LUSI GIS Project - Primary Ci...

http://localhost/lusi/g...

LUSI GIS Project - Primary...

New Pole

Find Pole Number

LocID	Number	Owner	Height	Type
LUI-35		Hydro/Hydro One	other	wood

Edit the pole Return to menu

Voltage

Phase

Type

Save

Local intranet 100%

Circuit Form

LUSI GIS Project - Primary Ci... - [ ] [ X ]

http://localhost/lusi/g/

LUSI GIS Project - Primary...

New Pole

Find Pole Number

LocID	Number	Owner	Height	Type
	LUI-35	Hydro/Hydro One	other	wood

Edit the pole      Return to menu

Voltage

Phase

Type

Save

- Cross Arm Const
- Improved Appearance
- Other
- Overhead
- Pole Top Pin
- Underground

Local intranet      100%

Circuit Form

LUSI GIS Project - Switch Ent... - [ ] [ X ]

http://localhost/lusi/g/

LUSI GIS Project - Switch ...

New Pole

Find Pole Number

LocID	Number	Owner	Height	Type
	LUI-35	Hydro/Hydro One	other	wood

Edit the pole      Return to menu

Switch Number

Voltage

Type

Phase

Save

- Air Brake
- In-Line
- Main
- Tap
- Transformer
- Underground

Local intranet      100%

Switch Form

LUSI GIS Project - Secondary... - [ ] [ X ]

http://localhost/lusi/g/

LUSI GIS Project - Second...

New Pole

Find Pole Number

LocID	Number	Owner	Height	Type
	LUI-35	Hydro/Hydro One	other	wood

Edit the pole      Return to menu

Voltage

Configuration

Street Light Wire Exists

Save

Local intranet      100%

Secondary Circuit Form

The screenshot shows a web browser window titled "LUSI GIS Project - Pole Inspection - ...". The address bar shows "http://localhost/lusi/gi...". The page content includes a "New Pole" section with a "Find Pole Number" button. Below this is a table with the following data:

LocID	Number	Owner	Height	Type
LUI-35		Hydro/Hydro One	other	wood

Below the table are links for "Edit the pole" and "Return to menu". The main form area contains:

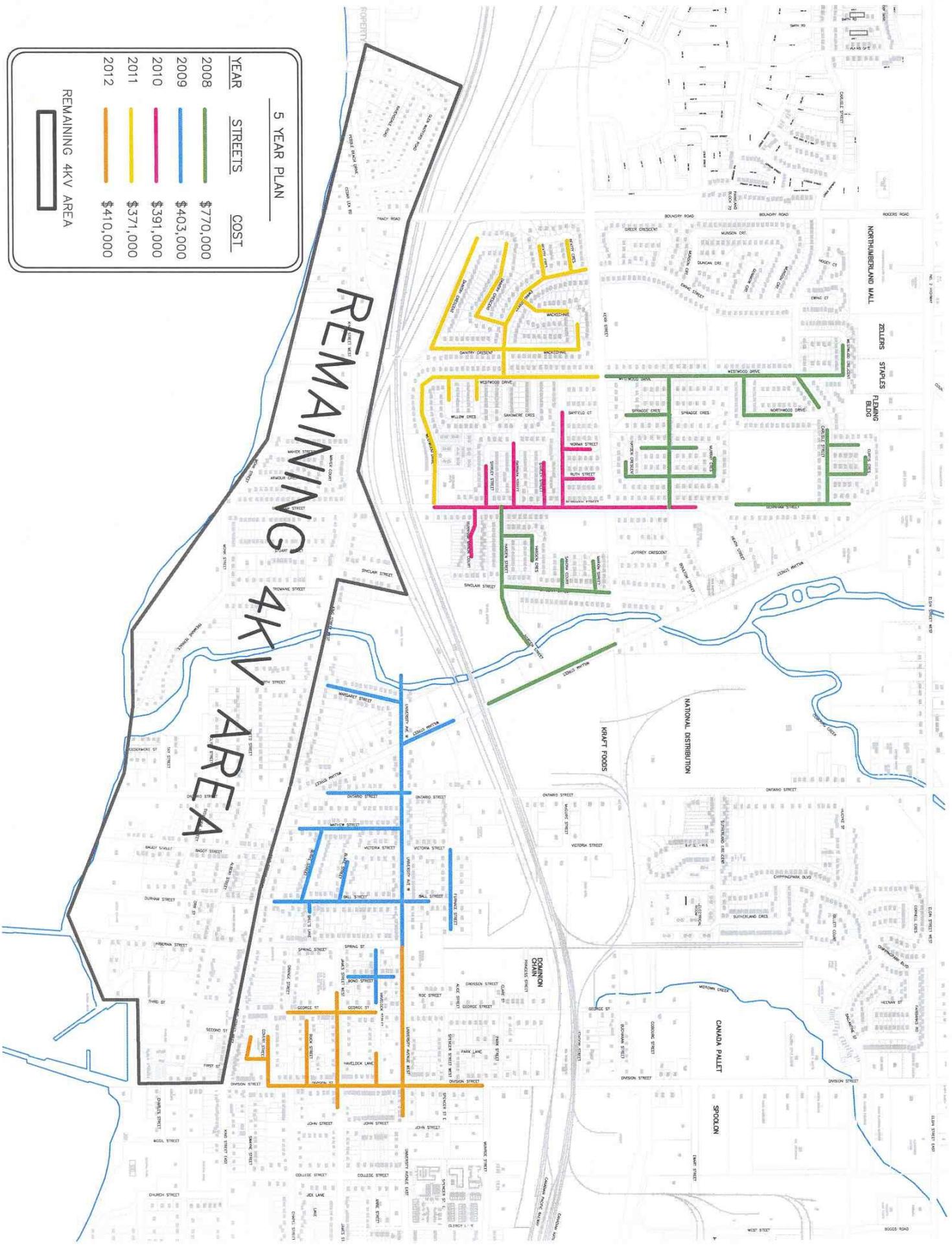
- Result:
- Comments:
- Photo:
- Inspector:
- Inspection Date:
- Save:

The browser status bar at the bottom shows "Local intranet" and "100%" zoom.

Pole Inspection Form

5 YEAR PLAN		
YEAR	STREETS	COST
2008		\$770,000
2009		\$403,000
2010		\$391,000
2011		\$371,000
2012		\$410,000

REMAINING 4KV AREA



# APPENDIX V

## PoleInsectionDetails

Result	Number	Owner	InstallationDate	Inspector	Comments
	LUI-35	Hydro/Hydro O			
	LUI-51	Hydro/Hydro O			
	103	Hydro			
	1042	Hydro			
	1099	Hydro			
	11	Hydro			
	111	Hydro			
	1208	Hydro			
	123	Hydro			
	1491	Hydro			
	1558	Hydro			
	1562	Hydro			
	1575	Hydro			
	1655	Hydro			
	185	Hydro			
	190	Hydro			
	191	Hydro			
	195	Hydro			
	198	Hydro			
	2054	Hydro			
	2055	Hydro			
	2056	Hydro			
	2057	Hydro			
	2058	Hydro			
	2059	Hydro			

---

2060	Hydro
2061	Hydro
2064	Hydro
2065	Hydro
2066	Hydro
2067	Hydro
2068	Hydro
2069	Hydro
2070	Hydro
2071	Hydro
2072	Hydro
2073	Hydro
2074	Hydro
2075	Hydro
2076	Hydro
2077	Hydro
2078	Hydro
2079	Hydro
2080	Hydro
2081	Hydro
2082	Hydro
2083	Hydro
2084	Hydro
2085	Hydro
2086	Hydro
2087	Hydro
2088	Hydro
209	Hydro
21	Hydro

---

---

212	Hydro
2135	Hydro
219	Hydro
2215	Hydro
2216	Hydro
2267	Hydro
255	Hydro
256	Hydro
257	Hydro
263	Hydro
2643	Hydro
2644	Hydro
275	Hydro
28	Hydro
294	Hydro
295	Hydro
319	Hydro
398	Hydro
413	Hydro
422	Hydro
430	Hydro
46	Hydro
467	Hydro
469	Hydro
5	Hydro
528	Hydro
54	Hydro
566	Hydro
602	Hydro

---

---

604	Hydro
605	Hydro
638	Hydro
65	Hydro
657	Hydro
80	Hydro
898	Hydro
91	Hydro
940	Hydro
973	Hydro
LUI-10	Hydro/Hydro O
LUI-100	Hydro/Hydro O
LUI-101	Hydro/Hydro O
LUI-102	Hydro/Hydro O
LUI-103	Hydro/Hydro O
LUI-104	Hydro/Hydro O
LUI-105	Hydro/Hydro O
LUI-106	Hydro/Hydro O
LUI-107	Hydro/Hydro O
LUI-108	Hydro/Hydro O
LUI-109	Hydro/Hydro O
LUI-11	Hydro/Hydro O
LUI-110	Hydro/Hydro O
LUI-12	Hydro/Hydro O
LUI-13	Hydro/Hydro O
LUI-14	Hydro/Hydro O
LUI-15	Hydro/Hydro O
LUI-16	Hydro/Hydro O
LUI-17	Hydro

---

---

LUI-18	Hydro/Hydro O
LUI-19	Hydro/Hydro O
LUI-20	Hydro/Hydro O
LUI-21	Hydro/Hydro O
LUI-21	Hydro/Hydro O
LUI-22	Hydro/Hydro O
LUI-23	Hydro/Hydro O
LUI-24	Hydro/Hydro O
LUI-25	Hydro/Hydro O
LUI-26	Hydro/Hydro O
LUI-27	Hydro/Hydro O
LUI-28	Hydro/Hydro O
LUI-29	Hydro/Hydro O
LUI-3	Hydro/Hydro O
LUI-30	Hydro/Hydro O
LUI-31	Hydro/Hydro O
LUI-32	Hydro/Hydro O
LUI-33	Hydro/Hydro O
LUI-34	Hydro/Hydro O
LUI-35	Hydro
LUI-36	Hydro/Hydro O
LUI-37	Hydro/Hydro O
LUI-38	Hydro/Hydro O
LUI-39	Hydro/Hydro O
LUI-4	Hydro/Hydro O
LUI-40	Hydro/Hydro O
LUI-41	Hydro/Hydro O
LUI-42	Hydro/Hydro O
LUI-43	Hydro/Hydro O

---

---

LUI-44	Hydro/Hydro O
LUI-45	Hydro/Hydro O
LUI-46	Hydro/Hydro O
LUI-47	Hydro/Hydro O
LUI-48	Hydro/Hydro O
LUI-49	Hydro/Hydro O
LUI-5	Hydro/Hydro O
LUI-50	Hydro/Hydro O
LUI-51	Hydro
LUI-52	Hydro/Hydro O
LUI-53	Hydro/Hydro O
LUI-54	Hydro/Hydro O
LUI-55	Hydro/Hydro O
LUI-6	Hydro/Hydro O
LUI-62	Hydro/Hydro O
LUI-63	Hydro/Hydro O
LUI-64	Hydro/Hydro O
LUI-65	Hydro
LUI-65	Hydro/Hydro O
LUI-66	Hydro/Hydro O
LUI-67	Hydro/Hydro O
LUI-68	Hydro/Hydro O
LUI-69	Hydro/Hydro O
LUI-7	Hydro/Hydro O
LUI-70	Hydro/Hydro O
LUI-71	Hydro/Hydro O
LUI-72	Hydro/Hydro O
LUI-73	Hydro/Hydro O
LUI-74	Hydro/Hydro O

---

LUI-75	Hydro/Hydro O
LUI-76	Hydro/Hydro O
LUI-77	Hydro/Hydro O
LUI-78	Hydro/Hydro O
LUI-8	Hydro/Hydro O
LUI-80	Hydro/Hydro O
LUI-81	Hydro/Hydro O
LUI-82	Hydro/Hydro O
LUI-83	Hydro/Hydro O
LUI-84	Hydro/Hydro O
LUI-86	Hydro/Hydro O
LUI-87	Hydro/Hydro O
LUI-88	Hydro/Hydro O
LUI-89	Hydro/Hydro O
LUI-9	Hydro/Hydro O
LUI-90	Hydro/Hydro O
LUI-91	Hydro/Hydro O
LUI-92	Hydro/Hydro O
LUI-93	Hydro/Hydro O
LUI-94	Hydro/Hydro O
LUI-95	Hydro/Hydro O
LUI-96	Hydro/Hydro O
LUI-98	Hydro/Hydro O
LUI-99	Hydro/Hydro O
LUI-99	Hydro/Hydro O

<b>Result</b>	Bad Top			
<b>Number</b>	<b>Owner</b>	<b>InstallationDate</b>	<b>Inspector</b>	<b>Comments</b>
1273	Hydro	06-07-05	Steve Jackson	
236	Hydro	06-05-29		Rob Robillard

**Result**

Deteriorating

**Number      Owner      :tionDate    Inspector      Comments**

1098      Hydro      06-06-28    Steve Jackson

1115      Hydro      06-06-28    Steve Jackson

1116      Hydro      06-06-28    Steve Jackson

1117      Hydro      06-06-28    Steve Jackson

1118      Hydro      06-06-28    Steve Jackson

1121      Hydro      06-06-28    Steve Jackson

1249      Hydro      06-07-05    Steve Jackson

1250      Hydro      06-07-05    Steve Jackson

1251      Hydro      06-07-05    Steve Jackson

1254      Hydro      06-07-05    Steve Jackson

1263      Hydro      06-07-05    Steve Jackson

1275      Hydro      06-07-05    Steve Jackson

1277      Hydro      06-07-05    Steve Jackson

1278      Hydro      06-07-05    Steve Jackson

1279      Hydro      06-07-05    Steve Jackson

1280      Hydro      06-07-05    Steve Jackson

1281      Hydro      06-07-05    Steve Jackson

1282      Hydro      06-07-05    Steve Jackson

1283      Hydro      06-07-05    Steve Jackson

1499      Hydro      06-07-19    Dwayne Northru

1581      Hydro      06-07-24    Steve Jackson

1582      Hydro      06-07-24    Steve Jackson

1583      Hydro      06-07-24    Steve Jackson

1587      Hydro      06-07-24    Steve Jackson

1589      Hydro      06-07-24    Steve Jackson

1593      Hydro      06-07-24    Steve Jackson

1601      Hydro      06-07-24    Steve Jackson

1606	Hydro	06-07-24	Steve Jackson	
1607	Hydro	06-07-24	Steve Jackson	
1608	Hydro	06-07-24	Steve Jackson	
1611	Hydro	06-07-24	Steve Jackson	
1613	Hydro	06-07-24	Steve Jackson	
1631	Hydro	06-07-24	Steve Jackson	
1667	Hydro	06-07-25	Steve Jackson	
1668	Hydro	06-07-25	Steve Jackson	
1714	Hydro	06-07-26	Steve Jackson	
1849	Hydro	06-08-01	Dwayne Northru	
1859	Hydro	06-08-01	Dwayne Northru	
2233	Hydro	06-08-21	Steve Jackson	
2337	Hydro	06-08-21	Steve Jackson	
2408	Hydro	06-08-22	Steve Jackson	
2433	Hydro	06-08-23	Steve Jackson	
2487	Hydro	06-08-28	Steve Jackson	
252	Hydro	06-05-30		shell rot Rob Robilliard
256	Hydro	06-05-30		shell rot split Rob Robilliard
271	Hydro	06-05-30	Rob Robilliard	shell rot
278	Hydro	06-05-30	Rob Robilliard	broken
733	Hydro	06-06-20	Steve Jackson	

<b>Result</b>		Leaning		
<b>Number</b>	<b>Owner</b>	<b>StationDate</b>	<b>Inspector</b>	<b>Comments</b>
1181	Hydro	06-06-29	Rob Robilliard	rotten
1182	Hydro	06-06-29	Rob Robilliard	
1204	Hydro	06-06-29	Rob Robilliard	rotten
1266	Hydro	06-07-05	Steve Jackson	
1268	Hydro	06-07-05	Steve Jackson	

1370	Hydro	06-07-17	Dwayne Northru	
1398	Hydro	06-07-18	Dwayne Northru	
1841	Hydro	06-08-01	Dwayne Northru	
2290	Hydro	06-08-21	Steve Jackson	leaning and deteriorating
309	Hydro	06-06-02	Rob Robilliard	
438	Hydro	06-06-07	Brandon Meado	
440	Hydro	06-06-07	Brandon Meado	
470	Hydro	06-06-08	Brandon Meado	
955	Hydro	06-06-26	Rob Robilliard	

<b>Result</b>		<input type="text" value="OK"/>			
<b>Number</b>	<b>Owner</b>	<b>InspectionDate</b>	<b>Inspector</b>	<b>Comments</b>	
1	Hydro				
10	Hydro			fair condition	
100	Hydro				
1000	Hydro	06-06-26	Rob Robilliard		
1001	Hydro	06-06-26	Rob Robilliard		
1002	Hydro	06-06-26	Rob Robilliard		
1003	Hydro	06-06-26	Rob Robilliard		
1004	Hydro	06-06-26	Rob Robilliard		
1005	Hydro	06-06-26	Rob Robilliard		
1006	Hydro	06-06-26	Rob Robilliard		
1007	Hydro	06-06-26	Rob Robilliard		
1008	Hydro	06-06-26	Rob Robilliard		
1009	Hydro	06-06-27	Rob Robilliard		
101	Hydro				
1010	Hydro	06-06-27	Rob Robilliard		
1011	Hydro	06-06-27	Rob Robilliard		
1012	Hydro	06-06-27	Rob Robilliard		
1013	Hydro	06-06-27	Rob Robilliard		

---

1014	Hydro	06-06-27	Rob Robilliard
1015	Hydro	06-06-27	Rob Robilliard
1016	Hydro	06-06-27	Rob Robilliard
1017	Hydro	06-06-27	Rob Robilliard
1018	Hydro	06-06-27	Rob Robilliard
1019	Hydro	06-06-27	Rob Robilliard
102	Hydro		
1020	Hydro	06-06-27	Rob Robilliard
1021	Hydro	06-06-27	Rob Robilliard
1022	Hydro	06-06-27	Rob Robilliard
1023	Hydro	06-06-27	Rob Robilliard
1024	Hydro	06-06-27	Rob Robilliard
1025	Hydro	06-06-27	Rob Robilliard
1026	Hydro	06-06-27	Rob Robilliard
1027	Hydro	06-06-27	Rob Robilliard
1028	Hydro	06-06-27	Rob Robilliard
1029	Hydro	06-06-27	Rob Robilliard
1030	Hydro	06-06-27	Rob Robilliard
1031	Hydro	06-06-27	Rob Robilliard
1032	Hydro	06-06-27	Rob Robilliard
1033	Hydro	06-06-27	Rob Robilliard
1034	Hydro	06-06-27	Rob Robilliard
1035	Hydro	06-06-27	Rob Robilliard
1036	Hydro	06-06-27	Rob Robilliard
1037	Hydro	06-06-27	Rob Robilliard
1038	Hydro	06-06-27	Rob Robilliard
1039	Hydro	06-06-27	Rob Robilliard
104	Hydro		
1040	Hydro	06-06-27	Rob Robilliard

---

---

1041	Hydro	06-06-27	Rob Robilliard
1043	Hydro	06-06-27	Rob Robilliard
1044	Hydro	06-06-27	Rob Robilliard
1045	Hydro	06-06-27	Rob Robilliard
1046	Hydro	06-06-27	Rob Robilliard
1047	Hydro	06-06-27	Rob Robilliard
1048	Hydro	06-06-27	Rob Robilliard
1049	Hydro	06-06-27	Rob Robilliard
105	Hydro		
1050	Hydro	06-06-27	Rob Robilliard
1050	Hydro	06-06-29	Rob Robilliard
1051	Hydro	06-06-27	Rob Robilliard
1052	Hydro	06-06-27	Rob Robilliard
1053	Hydro	06-06-27	Rob Robilliard
1054	Hydro	06-06-27	Rob Robilliard
1058	Hydro	06-06-27	Rob Robilliard
1059	Hydro	06-06-27	Rob Robilliard
106	Hydro		
1060	Hydro	06-06-27	Rob Robilliard
1061	Hydro	06-06-27	Rob Robilliard
1062	Hydro	06-06-27	Rob Robilliard
1063	Hydro	06-06-27	Rob Robilliard
1064	Hydro	06-06-27	Rob Robilliard
1065	Hydro	06-06-27	Rob Robilliard
1066	Hydro	06-06-27	Rob Robilliard
1067	Hydro	06-06-27	Rob Robilliard
1068	Hydro	06-06-27	Rob Robilliard
1069	Hydro	06-06-27	Rob Robilliard
107	Hydro		

---

---

1070	Hydro	06-06-27	Rob Robilliard
1071	Hydro	06-06-27	Rob Robilliard
1072	Hydro	06-06-27	Rob Robilliard
1074	Hydro	06-06-27	Rob Robilliard
1076	Hydro	06-06-27	Rob Robilliard
1077	Hydro	06-06-27	Rob Robilliard
109	Hydro		
1095	Hydro	06-06-28	Steve Jackson
110	Hydro		
1100	Hydro	06-06-28	Steve Jackson
1101	Hydro	06-06-28	Rob Robilliard
1102	Hydro	06-06-28	Steve Jackson
1103	Hydro	06-06-28	Steve Jackson
1104	Hydro	06-06-28	Steve Jackson
1105	Hydro	06-06-28	Steve Jackson
1106	Hydro	06-06-28	Steve Jackson
1107	Hydro	06-06-28	Steve Jackson
1108	Hydro	06-06-28	Steve Jackson
1109	Hydro	06-06-28	Steve Jackson
1110	Hydro	06-06-28	Steve Jackson
1111	Hydro	06-06-28	Steve Jackson
1112	Hydro	06-06-28	Steve Jackson
1113	Hydro	06-06-28	Steve Jackson
1114	Hydro	06-06-28	Steve Jackson
1119	Hydro	06-06-28	Steve Jackson
112	Hydro		
1120	Hydro	06-06-28	Steve Jackson
1122	Hydro	06-06-28	Steve Jackson
1123	Hydro	06-06-28	Steve Jackson

---

---

1124	Hydro	06-06-28	Steve Jackson
1125	Hydro	06-06-28	Steve Jackson
1126	Hydro	06-06-28	Steve Jackson
1127	Hydro	06-06-28	Steve Jackson
1128	Hydro	06-06-28	Steve Jackson
1129	Hydro	06-06-28	Steve Jackson
113	Hydro		
1130	Hydro	06-06-28	Steve Jackson
1131	Hydro	06-06-28	Steve Jackson
1132	Hydro	06-06-28	Steve Jackson
1133	Hydro	06-06-28	Steve Jackson
1134	Hydro	06-06-28	Steve Jackson
1135	Hydro	06-06-28	Steve Jackson
1136	Hydro	06-06-28	Steve Jackson
1137	Hydro	06-06-28	Steve Jackson
1138	Hydro	06-06-28	Steve Jackson
1139	Hydro	06-06-28	Steve Jackson
114	Hydro		
1140	Hydro	06-06-28	Steve Jackson
1141	Hydro	06-06-28	Steve Jackson
1142	Hydro	06-06-28	Steve Jackson
1143	Hydro	06-06-28	Steve Jackson
1144	Hydro	06-06-28	Steve Jackson
1145	Hydro	06-06-28	Steve Jackson
1146	Hydro	06-06-28	Steve Jackson
1147	Hydro	06-06-28	Steve Jackson
1148	Hydro	06-06-28	Steve Jackson
1149	Hydro	06-06-28	Steve Jackson
115	Hydro		

---

---

1150	Hydro	06-06-29	Rob Robilliard
1151	Hydro	06-06-29	Rob Robilliard
1152	Hydro	06-06-29	Rob Robilliard
1153	Hydro	06-06-29	Rob Robilliard
1154	Hydro	06-06-29	Rob Robilliard
1155	Hydro	06-06-29	Rob Robilliard
1158	Hydro	06-06-29	Rob Robilliard
116	Hydro		
1161	Hydro	06-06-29	Rob Robilliard
1162	Hydro	06-06-29	Rob Robilliard
1164	Hydro	06-06-29	Rob Robilliard
1165	Hydro	06-06-29	Rob Robilliard
1168	Hydro	06-06-29	Rob Robilliard
117	Hydro		
1170	Hydro	06-06-29	Rob Robilliard
1171	Hydro	06-06-29	Rob Robilliard
1172	Hydro	06-06-29	Rob Robilliard
1176	Hydro	06-06-29	Rob Robilliard
1177	Hydro	06-06-29	Rob Robilliard
1178	Hydro	06-06-29	Rob Robilliard
1179	Hydro	06-06-29	Rob Robilliard
118	Hydro		
1180	Hydro	06-06-29	Rob Robilliard
1183	Hydro	06-06-29	Rob Robilliard
1184	Hydro	06-06-29	Rob Robilliard
1185	Hydro	06-06-29	Rob Robilliard
1186	Hydro	06-06-29	Rob Robilliard
1187	Hydro	06-06-29	Rob Robilliard
1188	Hydro	06-06-29	Rob Robilliard

---

---

1189	Hydro	06-06-29	Rob Robilliard
119	Hydro		
1190	Hydro	06-06-29	Rob Robilliard
1191	Hydro	06-06-29	Rob Robilliard
1192	Hydro	06-06-29	Rob Robilliard
1193	Hydro	06-06-29	Rob Robilliard
1194	Hydro	06-06-29	Rob Robilliard
1195	Hydro	06-06-29	Rob Robilliard
1196	Hydro	06-06-29	Rob Robilliard
1197	Hydro	06-06-29	Rob Robilliard
1198	Hydro	06-06-29	Rob Robilliard
1199	Hydro	06-06-29	Rob Robilliard
12	Hydro		
120	Hydro		
1200	Hydro	06-06-29	Rob Robilliard
1201	Hydro	06-06-29	Rob Robilliard
1202	Hydro	06-06-29	Rob Robilliard
1205	Hydro	06-06-29	Rob Robilliard
1207	Hydro	06-06-29	Rob Robilliard
1208	Hydro	06-07-06	Brandon Meado
121	Hydro		
1211	Hydro	06-06-30	Rob Robilliard
1212	Hydro	06-06-30	Rob Robilliard
1213	Hydro	06-06-30	Rob Robilliard
1214	Hydro	06-06-30	Rob Robilliard
122	Hydro		
1225	Hydro	06-07-04	Rob Robilliard
1226	Hydro	06-07-04	Rob Robilliard
1227	Hydro	06-07-04	Rob Robilliard

---

---

1228	Hydro	06-07-04	Rob Robilliard
1229	Hydro	06-07-04	Rob Robilliard
1230	Hydro	06-07-04	Rob Robilliard
1231	Hydro	06-07-04	Rob Robilliard
1232	Hydro	06-07-04	Rob Robilliard
1233	Hydro	06-07-04	Rob Robilliard
1234	Hydro	06-07-04	Rob Robilliard
1235	Hydro	06-07-04	Rob Robilliard
1236	Hydro	06-07-04	Rob Robilliard
1237	Hydro	06-07-04	Rob Robilliard
1238	Hydro	06-07-04	Rob Robilliard
1239	Hydro	06-07-04	Rob Robilliard
1241	Hydro	06-07-04	Rob Robilliard
1242	Hydro	06-07-04	Rob Robilliard
1243	Hydro	06-07-04	Rob Robilliard
1244	Hydro	06-07-04	Rob Robilliard
1245	Hydro	06-07-04	Rob Robilliard
1246	Hydro	06-07-04	Rob Robilliard
1247	Hydro	06-07-04	Rob Robilliard
1248	Hydro	06-07-04	Rob Robilliard
125	Hydro		
1252	Hydro	06-07-05	Steve Jackson
1253	Hydro	06-07-05	Steve Jackson
1255	Hydro	06-07-05	Steve Jackson
1256	Hydro	06-07-05	Steve Jackson
1257	Hydro	06-07-05	Steve Jackson
1258	Hydro	06-07-05	Steve Jackson
1259	Hydro	06-07-05	Steve Jackson
126	Hydro		

---

---

1260	Hydro	06-07-05	Steve Jackson
1261	Hydro	06-07-05	Steve Jackson
1262	Hydro	06-07-05	Steve Jackson
1264	Hydro	06-07-05	Steve Jackson
1265	Hydro	06-07-05	Steve Jackson
1267	Hydro	06-07-05	Steve Jackson
127	Hydro		
1270	Hydro	06-07-05	Steve Jackson
1271	Hydro	06-07-05	Steve Jackson
1272	Hydro	06-07-05	Steve Jackson
1274	Hydro	06-07-05	Steve Jackson
1276	Hydro	06-07-05	Steve Jackson
128	Hydro		
1284	Hydro	06-07-06	Brandon Meado
1285	Hydro	06-07-06	Brandon Meado
1286	Hydro	06-07-06	Brandon Meado
1287	Hydro	06-07-06	Brandon Meado
1289	Hydro	06-07-06	Brandon Meado
1291	Hydro	06-07-06	Brandon Meado
1292	Hydro	06-07-06	Brandon Meado
1293	Hydro	06-07-06	Brandon Meado
1294	Hydro	06-07-06	Brandon Meado
1295	Hydro	06-07-06	Brandon Meado
1296	Hydro	06-07-06	Brandon Meado
1297	Hydro	06-07-06	Brandon Meado
1298	Hydro	06-07-06	Brandon Meado
1299	Hydro	06-07-06	Brandon Meado
13	Hydro		
1300	Hydro	06-07-06	Brandon Meado

---

---

1302	Hydro	06-07-06	Brandon Meado
1303	Hydro	06-07-06	Brandon Meado
1304	Hydro	06-07-06	Brandon Meado
1305	Hydro	06-07-06	Brandon Meado
1306	Hydro	06-07-06	Brandon Meado
1307	Hydro	06-07-06	Brandon Meado
1309	Hydro	06-07-06	Brandon Meado
1310	Hydro	06-07-06	Brandon Meado
1311	Hydro	06-07-06	Brandon Meado
1312	Hydro	06-07-06	Brandon Meado
1313	Hydro	06-07-06	Brandon Meado
1314	Hydro	06-07-06	Brandon Meado
1315	Hydro	06-07-06	Brandon Meado
1316	Hydro	06-07-06	Brandon Meado
1317	Hydro	06-07-06	Brandon Meado
1320	Hydro	06-07-11	Steve Jackson
1321	Hydro	06-07-11	Steve Jackson
1322	Hydro	06-07-11	Steve Jackson
1323	Hydro	06-07-11	Steve Jackson
1324	Hydro	06-07-11	Steve Jackson
1325	Hydro	06-07-11	Steve Jackson
1326	Hydro	06-07-11	Steve Jackson
1327	Hydro	06-07-11	Steve Jackson
1328	Hydro	06-07-11	Steve Jackson
1329	Hydro	06-07-11	Steve Jackson
133	Hydro		
1330	Hydro	06-07-11	Steve Jackson
1331	Hydro	06-07-11	Steve Jackson
1332	Hydro	06-07-11	Steve Jackson

---

---

1333	Hydro	06-07-11	Steve Jackson
1334	Hydro	06-07-17	Dwayne Northru
1335	Hydro	06-07-17	Dwayne Northru
1336	Hydro	06-07-17	Dwayne Northru
1337	Hydro	06-07-17	Dwayne Northru
1338	Hydro	06-07-17	Dwayne Northru
1339	Hydro	06-07-17	Dwayne Northru
1340	Hydro	06-07-17	Dwayne Northru
1341	Hydro	06-07-17	Dwayne Northru
1342	Hydro	06-07-17	Dwayne Northru
1343	Hydro	06-07-17	Dwayne Northru
1344	Hydro	06-07-17	Dwayne Northru
1345	Hydro	06-07-17	Dwayne Northru
1346	Hydro	06-07-17	Dwayne Northru
1347	Hydro	06-07-17	Dwayne Northru
1348	Hydro	06-07-17	Dwayne Northru
1349	Hydro	06-07-17	Dwayne Northru
135	Hydro		
1350	Hydro	06-07-17	Dwayne Northru
1351	Hydro	06-07-17	Dwayne Northru
1352	Hydro	06-07-17	Dwayne Northru
1353	Hydro	06-07-17	Dwayne Northru
1354	Hydro	06-07-17	Dwayne Northru
1355	Hydro	06-07-17	Dwayne Northru
1356	Hydro	06-07-17	Dwayne Northru
1357	Hydro	06-07-17	Dwayne Northru
1358	Hydro	06-07-17	Dwayne Northru
1359	Hydro	06-07-17	Dwayne Northru
136	Hydro		

---

---

1360	Hydro	06-07-17 Dwayne Northru
1361	Hydro	06-07-17 Dwayne Northru
1362	Hydro	06-07-17 Dwayne Northru
1363	Hydro	06-07-17 Dwayne Northru
1364	Hydro	06-07-17 Dwayne Northru
1365	Hydro	06-07-17 Dwayne Northru
1366	Hydro	06-07-17 Dwayne Northru
1367	Hydro	06-07-17 Dwayne Northru
1368	Hydro	06-07-17 Dwayne Northru
1369	Hydro	06-07-17 Dwayne Northru
137	Hydro	
1371	Hydro	06-07-17 Dwayne Northru
1372	Hydro	06-07-17 Dwayne Northru
1373	Hydro	06-07-17 Dwayne Northru
1374	Hydro	06-07-17 Dwayne Northru
1375	Hydro	06-07-17 Dwayne Northru
1376	Hydro	06-07-17 Dwayne Northru
1377	Hydro	06-07-17 Dwayne Northru
1378	Hydro	06-07-17 Dwayne Northru
1379	Hydro	06-07-17 Dwayne Northru
138	Hydro	
1380	Hydro	06-07-17 Dwayne Northru
1381	Hydro	06-07-17 Dwayne Northru
1382	Hydro	06-07-17 Dwayne Northru
1383	Hydro	06-07-17 Dwayne Northru
1384	Hydro	06-07-17 Dwayne Northru
1385	Hydro	06-07-17 Dwayne Northru
1386	Hydro	06-07-17 Dwayne Northru
1387	Hydro	06-07-17 Dwayne Northru

---

---

1388	Hydro	06-07-17 Dwayne Northru
1389	Hydro	06-07-17 Dwayne Northru
139	Hydro	
1390	Hydro	06-07-17 Dwayne Northru
1391	Hydro	06-07-17 Dwayne Northru
1392	Hydro	06-07-18 Dwayne Northru
1393	Hydro	06-07-18 Dwayne Northru
1394	Hydro	06-07-18 Dwayne Northru
1395	Hydro	06-07-18 Dwayne Northru
1396	Hydro	06-07-18 Dwayne Northru
1397	Hydro	06-07-18 Dwayne Northru
1399	Hydro	06-07-18 Dwayne Northru
14	Hydro	
140	Hydro	
1400	Hydro	06-07-18 Dwayne Northru
1401	Hydro	06-07-18 Dwayne Northru
1402	Hydro	06-07-18 Dwayne Northru
1403	Hydro	06-07-18 Dwayne Northru
1404	Hydro	06-07-18 Dwayne Northru
1405	Hydro	06-07-18 Dwayne Northru
1406	Hydro	06-07-18 Dwayne Northru
1407	Hydro	06-07-18 Dwayne Northru
1408	Hydro	06-07-18 Dwayne Northru
1409	Hydro	06-07-18 Dwayne Northru
1410	Hydro	06-07-18 Dwayne Northru
1411	Hydro	06-07-18 Dwayne Northru
1412	Hydro	06-07-18 Dwayne Northru
1413	Hydro	06-07-18 Dwayne Northru
1414	Hydro	06-07-18 Dwayne Northru

---

---

1415	Hydro	06-07-18	Dwayne Northru
1416	Hydro	06-07-18	Dwayne Northru
1417	Hydro	06-07-18	Dwayne Northru
1418	Hydro	06-07-18	Dwayne Northru
1419	Hydro	06-07-18	Dwayne Northru
142	Hydro		
1420	Hydro	06-07-18	Dwayne Northru
1421	Hydro	06-07-18	Dwayne Northru
1422	Hydro	06-07-18	Dwayne Northru
1423	Hydro	06-07-18	Dwayne Northru
1424	Hydro	06-07-18	Dwayne Northru
1425	Hydro	06-07-18	Dwayne Northru
1426	Hydro	06-07-18	Dwayne Northru
1427	Hydro	06-07-18	Dwayne Northru
1428	Hydro	06-07-18	Dwayne Northru
1429	Hydro	06-07-18	Dwayne Northru
1430	Hydro	06-07-18	Dwayne Northru
1431	Hydro	06-07-18	Dwayne Northru
1432	Hydro	06-07-18	Dwayne Northru
1433	Hydro	06-07-18	Dwayne Northru
1434	Hydro	06-07-18	Dwayne Northru
1435	Hydro	06-07-18	Dwayne Northru
1436	Hydro	06-07-18	Dwayne Northru
1437	Hydro	06-07-18	Dwayne Northru
1438	Hydro	06-07-18	Dwayne Northru
1439	Hydro	06-07-18	Dwayne Northru
144	Hydro		
1440	Hydro	06-07-18	Dwayne Northru
1441	Hydro	06-07-18	Dwayne Northru

---

---

1442	Hydro	06-07-18	Dwayne Northru
1443	Hydro	06-07-18	Dwayne Northru
1444	Hydro	06-07-18	Dwayne Northru
1445	Hydro	06-07-18	Dwayne Northru
1446	Hydro	06-07-18	Dwayne Northru
1447	Hydro	06-07-18	Dwayne Northru
1448	Hydro	06-07-19	Dwayne Northru
1449	Hydro	06-07-19	Dwayne Northru
1450	Hydro	06-07-19	Dwayne Northru
1451	Hydro	06-07-19	Dwayne Northru
1452	Hydro	06-07-19	Dwayne Northru
1453	Hydro	06-07-19	Dwayne Northru
1454	Hydro	06-07-19	Dwayne Northru
1455	Hydro	06-07-19	Dwayne Northru
1456	Hydro	06-07-19	Dwayne Northru
1457	Hydro	06-07-19	Dwayne Northru
1458	Hydro	06-07-19	Dwayne Northru
1459	Hydro	06-07-19	Dwayne Northru
146	Hydro		
1460	Hydro	06-07-19	Dwayne Northru
1461	Hydro	06-07-19	Dwayne Northru
1461	Hydro	06-07-19	Dwayne Northru
1463	Hydro	06-07-19	Dwayne Northru
1464	Hydro	06-07-19	Dwayne Northru
1465	Hydro	06-07-19	Dwayne Northru
1466	Hydro	06-07-19	Dwayne Northru
1467	Hydro	06-07-19	Dwayne Northru
1468	Hydro	06-07-19	Dwayne Northru
1469	Hydro	06-07-19	Dwayne Northru

---

---

147	Hydro	
1470	Hydro	06-07-19 Dwayne Northru
1471	Hydro	06-07-19 Dwayne Northru
1472	Hydro	06-07-19 Dwayne Northru
1473	Hydro	06-07-19 Dwayne Northru
1474	Hydro	06-07-19 Dwayne Northru
1475	Hydro	06-07-19 Dwayne Northru
1476	Hydro	06-07-19 Dwayne Northru
1477	Hydro	06-07-19 Dwayne Northru
1478	Hydro	06-07-19 Dwayne Northru
1479	Hydro	06-07-19 Dwayne Northru
148	Hydro	
1480	Hydro	06-07-19 Dwayne Northru
1481	Hydro	06-07-19 Dwayne Northru
1482	Hydro	06-07-19 Dwayne Northru
1483	Hydro	06-07-19 Dwayne Northru
1484	Hydro	06-07-19 Dwayne Northru
1485	Hydro	06-07-19 Dwayne Northru
1486	Hydro	06-07-19 Dwayne Northru
1487	Hydro	06-07-19 Dwayne Northru
1488	Hydro	06-07-19 Dwayne Northru
1489	Hydro	06-07-19 Dwayne Northru
149	Hydro	
1490	Hydro	06-07-19 Dwayne Northru
1492	Hydro	06-07-19 Dwayne Northru
1493	Hydro	06-07-19 Dwayne Northru
1494	Hydro	06-07-19 Dwayne Northru
1495	Hydro	06-07-19 Dwayne Northru
1496	Hydro	06-07-19 Dwayne Northru

---

---

1497	Hydro	06-07-19	Dwayne Northru
1498	Hydro	06-07-19	Dwayne Northru
15	Hydro		
150	Hydro		
1500	Hydro	06-07-19	Dwayne Northru
1501	Hydro	06-07-19	Dwayne Northru
1502	Hydro	06-07-19	Dwayne Northru
1503	Hydro	06-07-19	Dwayne Northru
1504	Hydro	06-07-19	Dwayne Northru
1505	Hydro	06-07-20	Dwayne Northru
1506	Hydro	06-07-20	Dwayne Northru
1507	Hydro	06-07-20	Dwayne Northru
1508	Hydro	06-07-20	Dwayne Northru
1509	Hydro	06-07-20	Dwayne Northru
1510	Hydro	06-07-20	Dwayne Northru
1511	Hydro	06-07-20	Dwayne Northru
1512	Hydro	06-07-20	Dwayne Northru
1513	Hydro	06-07-20	Dwayne Northru
1514	Hydro	06-07-20	Dwayne Northru
1515	Hydro	06-08-15	Dwayne Northru
1516	Hydro	06-07-20	Dwayne Northru
1517	Hydro	06-07-20	Dwayne Northru
1518	Hydro	06-07-20	Dwayne Northru
1519	Hydro	06-07-20	Dwayne Northru
152	Hydro		
1520	Hydro	06-07-20	Dwayne Northru
1521	Hydro	06-07-20	Dwayne Northru
1522	Hydro	06-07-20	Dwayne Northru
1523	Hydro	06-07-20	Dwayne Northru

---

---

1524	Hydro	06-07-20	Dwayne Northru
1525	Hydro	06-07-20	Dwayne Northru
1526	Hydro	06-07-20	Dwayne Northru
1527	Hydro	06-07-20	Dwayne Northru
1528	Hydro	06-07-20	Dwayne Northru
1529	Hydro	06-07-20	Dwayne Northru
153	Hydro		
153	Hydro		
1530	Hydro	06-07-20	Dwayne Northru
1531	Hydro	06-07-20	Dwayne Northru
1532	Hydro	06-07-20	Dwayne Northru
1533	Hydro	06-07-20	Dwayne Northru
1534	Hydro	06-07-20	Dwayne Northru
1535	Hydro	06-07-20	Dwayne Northru
1536	Hydro	06-07-20	Dwayne Northru
1537	Hydro	06-07-20	Dwayne Northru
1538	Hydro	06-07-20	Dwayne Northru
1539	Hydro	06-07-20	Dwayne Northru
1540	Hydro	06-07-20	Dwayne Northru
1541	Hydro	06-07-20	Dwayne Northru
1542	Hydro	06-07-20	Dwayne Northru
1543	Hydro	06-07-20	Dwayne Northru
1544	Hydro	06-07-20	Dwayne Northru
1545	Hydro	06-07-20	Dwayne Northru
1546	Hydro	06-07-20	Dwayne Northru
1547	Hydro	06-07-20	Dwayne Northru
1548	Hydro	06-07-20	Dwayne Northru
1549	Hydro	06-07-20	Dwayne Northru
155	Hydro		

---

---

155	Hydro	06-07-20	Dwayne Northru
1551	Hydro	06-07-20	Dwayne Northru
1552	Hydro	06-07-20	Dwayne Northru
1554	Hydro	06-07-20	Dwayne Northru
1555	Hydro	06-07-20	Dwayne Northru
1556	Hydro	06-07-20	Dwayne Northru
1557	Hydro	06-07-20	Dwayne Northru
1559	Hydro	06-07-20	Dwayne Northru
156	Hydro		
1560	Hydro	06-07-20	Dwayne Northru
1561	Hydro	06-07-20	Dwayne Northru
1562	Hydro	06-07-20	Dwayne Northru
1563	Hydro	06-07-20	Dwayne Northru
1564	Hydro	06-07-20	Dwayne Northru
1565	Hydro	06-07-20	Dwayne Northru
1566	Hydro	06-07-20	Dwayne Northru
1567	Hydro	06-07-21	Dwayne Northru
1568	Hydro	06-07-21	Dwayne Northru
1569	Hydro	06-07-21	Dwayne Northru
157	Hydro		
1570	Hydro	06-07-21	Dwayne Northru
1571	Hydro	06-07-21	Dwayne Northru
1572	Hydro	06-07-21	Dwayne Northru
1574	Hydro	06-07-21	Dwayne Northru
1575	Hydro	06-07-21	Dwayne Northru
1576	Hydro	06-07-24	Steve Jackson
1578	Hydro	06-07-21	Dwayne Northru
1579	Hydro	06-07-21	Dwayne Northru
158	Hydro		

---

---

1580	Hydro	06-07-24	Steve Jackson
1584	Hydro	06-07-24	Steve Jackson
1585	Hydro	06-07-24	Steve Jackson
1586	Hydro	06-07-24	Steve Jackson
1588	Hydro	06-07-24	Steve Jackson
159	Hydro		
1590	Hydro	06-07-24	Steve Jackson
1591	Hydro	06-07-24	Steve Jackson
1592	Hydro	06-07-24	Steve Jackson
1594	Hydro	06-07-24	Steve Jackson
1595	Hydro	06-07-24	Steve Jackson
1596	Hydro	06-07-24	Steve Jackson
1597	Hydro	06-07-24	Steve Jackson
1598	Hydro	06-07-24	Steve Jackson
1599	Hydro	06-07-24	Steve Jackson
16	Hydro		
1600	Hydro	06-07-24	Steve Jackson
1602	Hydro	06-07-24	Steve Jackson
1603	Hydro	06-07-24	Steve Jackson
1604	Hydro	06-07-24	Steve Jackson
1605	Hydro	06-07-24	Steve Jackson
1609	Hydro	06-07-24	Steve Jackson
161	Hydro		
1610	Hydro	06-07-24	Steve Jackson
1612	Hydro	06-07-24	Steve Jackson
1614	Hydro	06-07-24	Steve Jackson
1615	Hydro	06-07-24	Steve Jackson
1616	Hydro	06-07-24	Steve Jackson
1617	Hydro	06-07-24	Steve Jackson

---

---

1618	Hydro	06-07-24	Steve Jackson
1619	Hydro	06-07-24	Steve Jackson
162	Hydro		
1620	Hydro	06-07-24	Steve Jackson
1621	Hydro	06-07-24	Steve Jackson
1622	Hydro	06-07-24	Steve Jackson
1622	Hydro	06-07-24	Steve Jackson
1624	Hydro	06-07-24	Steve Jackson
1625	Hydro	06-07-24	Steve Jackson
1626	Hydro	06-07-24	Steve Jackson
1627	Hydro	06-07-24	Steve Jackson
1628	Hydro	06-07-24	Steve Jackson
1629	Hydro	06-07-24	Steve Jackson
163	Hydro		
1630	Hydro	06-07-24	Steve Jackson
1632	Hydro	06-07-25	Steve Jackson
1633	Hydro	06-07-25	Steve Jackson
1634	Hydro	06-07-25	Steve Jackson
1635	Hydro	06-07-25	Steve Jackson
1636	Hydro	06-07-25	Steve Jackson
1637	Hydro	06-07-25	Steve Jackson
1638	Hydro	06-07-25	Steve Jackson
1639	Hydro	06-07-25	Steve Jackson
164	Hydro		
1640	Hydro	06-07-25	Steve Jackson
1641	Hydro	06-07-25	Steve Jackson
1642	Hydro	06-07-25	Steve Jackson
1643	Hydro	06-07-25	Steve Jackson
1644	Hydro	06-07-25	Steve Jackson

---

---

1645	Hydro	06-07-25	Steve Jackson
1646	Hydro	06-07-25	Steve Jackson
1647	Hydro	06-07-25	Steve Jackson
1648	Hydro	06-07-25	Steve Jackson
1649	Hydro	06-07-25	Steve Jackson
165	Hydro		
1650	Hydro	06-07-25	Steve Jackson
1651	Hydro	06-07-25	Steve Jackson
1652	Hydro	06-07-25	Steve Jackson
1653	Hydro	06-07-25	Steve Jackson
1654	Hydro	06-07-25	Steve Jackson
1656	Hydro	06-07-25	Steve Jackson
1657	Hydro	06-07-25	Steve Jackson
1658	Hydro	06-07-25	Steve Jackson
1659	Hydro	06-07-25	Steve Jackson
166	Hydro		
1660	Hydro	06-07-25	Steve Jackson
1661	Hydro	06-07-25	Steve Jackson
1662	Hydro	06-07-25	Steve Jackson
1663	Hydro	06-07-25	Steve Jackson
1664	Hydro	06-07-25	Steve Jackson
1665	Hydro	06-07-25	Steve Jackson
1666	Hydro	06-07-25	Steve Jackson
1669	Hydro	06-07-25	Steve Jackson
167	Hydro		
1670	Hydro	06-07-25	Steve Jackson
1671	Hydro	06-07-25	Steve Jackson
1672	Hydro	06-07-25	Steve Jackson
1673	Hydro	06-07-25	Steve Jackson

---

---

1674	Hydro	06-07-25	Steve Jackson
1675	Hydro	06-07-25	Steve Jackson
1676	Hydro	06-07-25	Steve Jackson
1677	Hydro	06-07-25	Steve Jackson
1678	Hydro	06-07-26	Steve Jackson
1679	Hydro	06-07-26	Steve Jackson
168	Hydro		
1680	Hydro	06-07-26	Steve Jackson
1681	Hydro	06-07-26	Steve Jackson
1682	Hydro	06-07-26	Steve Jackson
1683	Hydro	06-07-26	Steve Jackson
1684	Hydro	06-07-26	Steve Jackson
1686	Hydro	06-07-26	Steve Jackson
1687	Hydro	06-07-26	Steve Jackson
1688	Hydro	06-07-26	Steve Jackson
1689	Hydro	06-07-26	Steve Jackson
169	Hydro		
1690	Hydro	06-07-26	Steve Jackson
1691	Hydro	06-07-26	Steve Jackson
1692	Hydro	06-07-26	Steve Jackson
1693	Hydro	06-07-26	Steve Jackson
1695	Hydro	06-07-26	Steve Jackson
1696	Hydro	06-07-26	Steve Jackson
1697	Hydro	06-07-26	Steve Jackson
1698	Hydro	06-07-26	Steve Jackson
1699	Hydro	06-07-26	Steve Jackson
17	Hydro		
170	Hydro		
1700	Hydro	06-07-26	Steve Jackson

---

---

1701	Hydro	06-07-26	Steve Jackson
1702	Hydro	06-07-26	Steve Jackson
1703	Hydro	06-07-26	Steve Jackson
1704	Hydro	06-07-26	Steve Jackson
1705	Hydro	06-07-26	Steve Jackson
1706	Hydro	06-07-26	Steve Jackson
1707	Hydro	06-07-26	Steve Jackson
1708	Hydro	06-07-26	Steve Jackson
1709	Hydro	06-07-26	Steve Jackson
171	Hydro		
1710	Hydro	06-07-26	Steve Jackson
1711	Hydro	06-07-26	Steve Jackson
1712	Hydro	06-07-26	Steve Jackson
1713	Hydro	06-07-26	Steve Jackson
1715	Hydro	06-07-27	Steve Jackson
1716	Hydro	06-07-27	Steve Jackson
1716	Hydro	06-07-27	Steve Jackson
1718	Hydro	06-07-27	Steve Jackson
1719	Hydro	06-07-27	Steve Jackson
172	Hydro		
1720	Hydro	06-07-27	Steve Jackson
1721	Hydro	06-07-27	Steve Jackson
1722	Hydro	06-07-27	Steve Jackson
1723	Hydro	06-07-27	Steve Jackson
1724	Hydro	06-07-27	Steve Jackson
1725	Hydro	06-07-27	Steve Jackson
1726	Hydro	06-07-27	Steve Jackson
1727	Hydro	06-07-27	Steve Jackson
1728	Hydro	06-07-27	Steve Jackson

---

---

1729	Hydro	06-07-27	Steve Jackson
173	Hydro		
1730	Hydro	06-07-27	Steve Jackson
1731	Hydro	06-07-27	Steve Jackson
1732	Hydro	06-07-27	Steve Jackson
1733	Hydro	06-07-27	Steve Jackson
1734	Hydro	06-07-27	Steve Jackson
1735	Hydro	06-07-27	Steve Jackson
1736	Hydro	06-07-27	Steve Jackson
1737	Hydro	06-07-27	Steve Jackson
1738	Hydro	06-07-27	Steve Jackson
1739	Hydro	06-07-27	Steve Jackson
174	Hydro		
174	Hydro		
1740	Hydro	06-07-27	Steve Jackson
1741	Hydro	06-07-27	Steve Jackson
17428	Hydro	06-07-27	Steve Jackson
1743	Hydro	06-07-27	Steve Jackson
1744	Hydro	06-07-27	Steve Jackson
1745	Hydro	06-07-27	Steve Jackson
1746	Hydro	06-07-27	Steve Jackson
1747	Hydro	06-07-27	Steve Jackson
1748	Hydro	06-07-27	Steve Jackson
1749	Hydro	06-07-27	Steve Jackson
175	Hydro		
1750	Hydro	06-07-27	Steve Jackson
1751	Hydro	06-07-27	Steve Jackson
1752	Hydro	06-07-27	Steve Jackson
1753	Hydro	06-07-27	Steve Jackson

---

---

1754	Hydro	06-07-27	Steve Jackson
1755	Hydro	06-07-27	Steve Jackson
1756	Hydro	06-07-27	Steve Jackson
1757	Hydro	06-07-27	Steve Jackson
1758	Hydro	06-07-27	Steve Jackson
1759	Hydro	06-07-27	Steve Jackson
176	Hydro		
1760	Hydro	06-07-27	Steve Jackson
1761	Hydro	06-07-27	Steve Jackson
1762	Hydro	06-07-27	Steve Jackson
1763	Hydro	06-07-27	Steve Jackson
1764	Hydro	06-07-27	Steve Jackson
1765	Hydro	06-07-31	Dwayne Northru
1766	Hydro	06-07-31	Dwayne Northru
1767	Hydro	06-07-31	Dwayne Northru
1768	Hydro	06-07-31	Dwayne Northru
1769	Hydro	06-07-31	Dwayne Northru
177	Hydro		
1770	Hydro	06-07-31	Dwayne Northru
1771	Hydro	06-07-31	Dwayne Northru
1772	Hydro	06-07-31	Dwayne Northru
1773	Hydro	06-07-31	Dwayne Northru
1774	Hydro	06-07-31	Dwayne Northru
1776	Hydro	06-07-31	Dwayne Northru
1777	Hydro	06-07-31	Dwayne Northru
1778	Hydro	06-07-31	Dwayne Northru
1779	Hydro	06-07-31	Dwayne Northru
178	Hydro		
1780	Hydro	06-07-31	Dwayne Northru

---

---

1781	Hydro	06-07-31	Dwayne Northru
1782	Hydro	06-07-31	Dwayne Northru
1783	Hydro	06-07-31	Dwayne Northru
1784	Hydro	06-07-31	Dwayne Northru
1785	Hydro	06-07-31	Dwayne Northru
1786	Hydro	06-07-31	Dwayne Northru
1787	Hydro	06-07-31	Dwayne Northru
1788	Hydro	06-07-31	Dwayne Northru
1789	Hydro	06-07-31	Dwayne Northru
1790	Hydro	06-07-31	Dwayne Northru
1791	Hydro	06-07-31	Dwayne Northru
1792	Hydro	06-07-31	Dwayne Northru
1793	Hydro	06-07-31	Dwayne Northru
1794	Hydro	06-07-31	Dwayne Northru
1795	Hydro	06-07-31	Dwayne Northru
1796	Hydro	06-07-31	Dwayne Northru
1797	Hydro	06-07-31	Dwayne Northru
1798	Hydro	06-07-31	Dwayne Northru
1799	Hydro	06-07-31	Dwayne Northru
18	Hydro		
180	Hydro		
1800	Hydro	06-07-31	Dwayne Northru
1801	Hydro	06-07-31	Dwayne Northru
1802	Hydro	06-07-31	Dwayne Northru
1803	Hydro	06-07-31	Dwayne Northru
1803	Hydro	06-07-31	Dwayne Northru
1803	Hydro	06-07-31	Dwayne Northru
1806	Hydro	06-07-31	Dwayne Northru
1807	Hydro	06-07-31	Dwayne Northru

---

---

1808	Hydro	06-07-31	Dwayne Northru
1809	Hydro	06-07-31	Dwayne Northru
181	Hydro		
1810	Hydro	06-07-31	Dwayne Northru
1811	Hydro	06-07-31	Dwayne Northru
1812	Hydro	06-07-31	Dwayne Northru
1814	Hydro	06-07-31	Dwayne Northru
1815	Hydro	06-07-31	Dwayne Northru
1816	Hydro	06-07-31	Dwayne Northru
1817	Hydro	06-07-31	Dwayne Northru
1818	Hydro	06-07-31	Dwayne Northru
1819	Hydro	06-07-31	Dwayne Northru
182	Hydro		
1820	Hydro	06-07-31	Dwayne Northru
1821	Hydro	06-07-31	Dwayne Northru
1822	Hydro	06-07-31	Dwayne Northru
1823	Hydro	06-07-31	Dwayne Northru
1824	Hydro	06-07-31	Dwayne Northru
1825	Hydro	06-07-31	Dwayne Northru
1826	Hydro	06-07-31	Dwayne Northru
1827	Hydro	06-07-31	Dwayne Northru
1828	Hydro	06-08-01	Dwayne Northru
1829	Hydro	06-08-01	Dwayne Northru
183	Hydro		
1830	Hydro	06-08-01	Dwayne Northru
1831	Hydro	06-08-01	Dwayne Northru
1832	Hydro	06-08-01	Dwayne Northru
1833	Hydro	06-08-01	Dwayne Northru
1834	Hydro	06-08-01	Dwayne Northru

---

---

1835	Hydro	06-08-01	Dwayne Northru
1838	Hydro	06-08-01	Dwayne Northru
1839	Hydro	06-08-01	Dwayne Northru
184	Hydro		
1840	Hydro	06-08-01	Dwayne Northru
1842	Hydro	06-08-01	Dwayne Northru
1843	Hydro	06-08-01	Dwayne Northru
1844	Hydro	06-08-01	Dwayne Northru
1845	Hydro	06-08-01	Dwayne Northru
1846	Hydro	06-08-01	Dwayne Northru
1847	Hydro	06-08-01	Dwayne Northru
1847	Hydro	06-08-01	Dwayne Northru
1850	Hydro	06-08-01	Dwayne Northru
1851	Hydro	06-08-01	Dwayne Northru
1852	Hydro	06-08-01	Dwayne Northru
1853	Hydro	06-08-01	Dwayne Northru
1854	Hydro	06-08-01	Dwayne Northru
1855	Hydro	06-08-01	Dwayne Northru
1856	Hydro	06-08-01	Dwayne Northru
1857	Hydro	06-08-01	Dwayne Northru
1858	Hydro	06-08-01	Dwayne Northru
186	Hydro		
1860	Hydro	06-08-01	Dwayne Northru
1861	Hydro	06-08-01	Dwayne Northru
1862	Hydro	06-08-01	Dwayne Northru
1863	Hydro	06-08-01	Dwayne Northru
1864	Hydro	06-08-01	Dwayne Northru
1865	Hydro	06-08-01	Dwayne Northru
1866	Hydro	06-08-01	Dwayne Northru

---

---

1867	Hydro	06-08-01	Dwayne Northru
1868	Hydro	06-08-01	Dwayne Northru
1869	Hydro	06-08-01	Dwayne Northru
187	Hydro		
1870	Hydro	06-08-01	Dwayne Northru
1871	Hydro	06-08-02	Dwayne Northru
1872	Hydro	06-08-02	Dwayne Northru
1873	Hydro	06-08-02	Dwayne Northru
1874	Hydro	06-08-02	Dwayne Northru
1875	Hydro	06-08-02	Dwayne Northru
1876	Hydro	06-08-02	Dwayne Northru
1877	Hydro	06-08-02	Dwayne Northru
1878	Hydro	06-08-02	Dwayne Northru
1879	Hydro	06-08-02	Dwayne Northru
188	Hydro		
1880	Hydro	06-08-02	Dwayne Northru
1881	Hydro	06-08-02	Dwayne Northru
1882	Hydro	06-08-02	Dwayne Northru
1883	Hydro	06-08-02	Dwayne Northru
1884	Hydro	06-08-02	Dwayne Northru
1885	Hydro	06-08-02	Dwayne Northru
1886	Hydro	06-08-02	Dwayne Northru
1887	Hydro	06-08-02	Dwayne Northru
1888	Hydro	06-08-02	Dwayne Northru
1889	Hydro	06-08-02	Dwayne Northru
189	Hydro		
1890	Hydro	06-08-02	Dwayne Northru
1891	Hydro	06-08-02	Dwayne Northru
1892	Hydro	06-08-02	Dwayne Northru

---

---

1893	Hydro	06-08-02	Dwayne Northru
1894	Hydro	06-08-02	Dwayne Northru
1895	Hydro	06-08-02	Dwayne Northru
1896	Hydro	06-08-02	Dwayne Northru
1897	Hydro	06-08-02	Dwayne Northru
1898	Hydro	06-08-02	Dwayne Northru
1899	Hydro	06-08-02	Dwayne Northru
1900	Hydro	06-08-02	Dwayne Northru
1901	Hydro	06-08-02	Dwayne Northru
1902	Hydro	06-08-02	Dwayne Northru
1903	Hydro	06-08-02	Dwayne Northru
1904	Hydro	06-08-02	Dwayne Northru
1905	Hydro	06-08-02	Dwayne Northru
1906	Hydro	06-08-02	Dwayne Northru
1907	Hydro	06-08-02	Dwayne Northru
1908	Hydro	06-08-02	Dwayne Northru
1909	Hydro	06-08-02	Dwayne Northru
1910	Hydro	06-08-02	Dwayne Northru
1911	Hydro	06-08-02	Dwayne Northru
1912	Hydro	06-08-02	Dwayne Northru
1913	Hydro	06-08-02	Dwayne Northru
1914	Hydro	06-08-02	Dwayne Northru
1915	Hydro	06-08-02	Dwayne Northru
1916	Hydro	06-08-02	Dwayne Northru
1917	Hydro	06-08-02	Dwayne Northru
1918	Hydro	06-08-02	Dwayne Northru
1919	Hydro	06-08-02	Dwayne Northru
192	Hydro	25-05-06	
1920	Hydro	06-08-02	Dwayne Northru

---

1921	Hydro	06-08-02	Dwayne Northru
1922	Hydro	06-08-02	Dwayne Northru
1923	Hydro	06-08-02	Dwayne Northru
1924	Hydro	06-08-02	Dwayne Northru
1925	Hydro	06-08-02	Dwayne Northru
1926	Hydro	06-08-02	Dwayne Northru
1927	Hydro	06-08-02	Dwayne Northru
1928	Hydro	06-08-02	Dwayne Northru
1929	Hydro	06-08-02	Dwayne Northru
193	Hydro	25-05-06	
1930	Hydro	06-08-02	Dwayne Northru
1931	Hydro	06-08-02	Dwayne Northru
1932	Hydro	06-08-02	Dwayne Northru
1933	Hydro	06-08-02	Dwayne Northru
1934	Hydro	06-08-02	Dwayne Northru
1935	Hydro	06-08-02	Dwayne Northru
1936	Hydro	06-08-02	Dwayne Northru
1937	Hydro	06-08-02	Dwayne Northru
1938	Hydro	06-08-02	Dwayne Northru
1939	Hydro	06-08-08	Brandon Meado
194	Hydro	25-05-06	
1940	Hydro	06-08-02	Dwayne Northru
1940	Hydro	06-08-08	Brandon Meado
1942	Hydro	06-08-08	Brandon Meado
1944	Hydro	06-08-08	Brandon Meado
1945	Hydro	06-08-08	Brandon Meado
1946	Hydro	06-08-08	Brandon Meado
1947	Hydro	06-08-08	Brandon Meado
1948	Hydro	06-08-08	Brandon Meado

---

1949	Hydro	06-08-08	Brandon Meado
1950	Hydro	06-08-08	Brandon Meado
1951	Hydro	06-08-08	Brandon Meado
1952	Hydro	06-08-08	Brandon Meado
1953	Hydro	06-08-08	Brandon Meado
1954	Hydro	06-08-08	Brandon Meado
1955	Hydro	06-08-08	Brandon Meado
1956	Hydro	06-08-08	Brandon Meado
1957	Hydro	06-08-08	Brandon Meado
1958	Hydro	06-08-08	Brandon Meado
1959	Hydro	06-08-08	Brandon Meado
196	Hydro	25-05-06	
1960	Hydro	06-08-08	Brandon Meado
1961	Hydro	06-08-08	Brandon Meado
1962	Hydro	06-08-08	Brandon Meado
1963	Hydro	06-08-08	Brandon Meado
1964	Hydro	06-08-08	Brandon Meado
1965	Hydro	06-08-08	Brandon Meado
1966	Hydro	06-08-08	Brandon Meado
1967	Hydro	06-08-08	Brandon Meado
1968	Hydro	06-08-08	Brandon Meado
1969	Hydro	06-08-08	Brandon Meado
197	Hydro	25-05-06	
1970	Hydro	06-08-08	Brandon Meado
1971	Hydro	06-08-08	Brandon Meado
1972	Hydro	06-08-08	Brandon Meado
1973	Hydro	06-08-08	Brandon Meado
1974	Hydro	06-08-08	Brandon Meado
1975	Hydro	06-08-08	Brandon Meado

---

1975	Hydro	06-08-08	Brandon Meado
1976	Hydro	06-08-08	Brandon Meado
1977	Hydro	06-08-08	Brandon Meado
1977	Hydro	06-08-08	Brandon Meado
1979	Hydro	06-08-08	Brandon Meado
1980	Hydro	06-08-08	Brandon Meado
1981	Hydro	06-08-08	Brandon Meado
1982	Hydro	06-08-08	Brandon Meado
1983	Hydro	06-08-08	Brandon Meado
1984	Hydro	06-08-08	Brandon Meado
1985	Hydro	06-08-08	Brandon Meado
1986	Hydro	06-08-08	Brandon Meado
1987	Hydro	06-08-08	Brandon Meado
1988	Hydro	06-08-08	Brandon Meado
1989	Hydro	06-08-08	Brandon Meado
199	Hydro	25-05-06	
1990	Hydro	06-08-08	Brandon Meado
1991	Hydro	06-08-08	Brandon Meado
1992	Hydro	06-08-08	Brandon Meado
1993	Hydro	06-08-08	Brandon Meado
1994	Hydro	06-08-08	Brandon Meado
1995	Hydro	06-08-08	Brandon Meado
1996	Hydro	06-08-08	Brandon Meado
1997	Hydro	06-08-08	Brandon Meado
1998	Hydro	06-08-09	Brandon Meado
1999	Hydro	06-08-09	Brandon Meado
20	Hydro		
200	Hydro	25-05-06	may be split
2000	Hydro	06-08-09	Brandon Meado

---

2001	Hydro	06-08-09	Brandon Meado
2002	Hydro	06-08-09	Brandon Meado
2003	Hydro	06-08-09	Brandon Meado
2004	Hydro	06-08-09	Brandon Meado
2005	Hydro	06-08-09	Brandon Meado
2006	Hydro	06-08-09	Brandon Meado
2007	Hydro	06-08-09	Brandon Meado
2008	Hydro	06-08-09	Brandon Meado
2009	Hydro	06-08-09	Brandon Meado
201	Hydro	25-05-06	
2010	Hydro	06-08-09	Brandon Meado
2011	Hydro	06-08-09	Brandon Meado
2012	Hydro	06-08-09	Brandon Meado
2013	Hydro	06-08-09	Brandon Meado
2014	Hydro	06-08-09	Brandon Meado
2015	Hydro	06-08-09	Brandon Meado
2016	Hydro	06-08-09	Brandon Meado
2017	Hydro	06-08-09	Brandon Meado
2018	Hydro	06-08-10	Brandon Meado
2019	Hydro	06-08-10	Brandon Meado
202	Hydro	25-05-06	
2020	Hydro	06-08-10	Brandon Meado
2021	Hydro	06-08-10	Brandon Meado
2022	Hydro	06-08-10	Brandon Meado
2023	Hydro	06-08-10	Brandon Meado
2024	Hydro	06-08-10	Brandon Meado
2025	Hydro	06-08-10	Brandon Meado
2026	Hydro	06-08-10	Brandon Meado
2027	Hydro	06-08-10	Brandon Meado

---

---

2028	Hydro	06-08-10	Brandon Meado
2029	Hydro	06-08-10	Brandon Meado
203	Hydro	25-05-06	
2030	Hydro	06-08-10	Brandon Meado
2031	Hydro	06-08-10	Brandon Meado
2032	Hydro	06-08-10	Brandon Meado
2033	Hydro	06-08-10	Brandon Meado
2034	Hydro	06-08-10	Brandon Meado
2035	Hydro	06-08-10	Brandon Meado
2036	Hydro	06-08-10	Brandon Meado
2037	Hydro	06-08-10	Brandon Meado
2037	Hydro	06-08-10	Brandon Meado
2039	Hydro	06-08-10	Brandon Meado
204	Hydro	25-05-06	
2040	Hydro	06-08-10	Brandon Meado
2041	Hydro	06-08-10	Brandon Meado
2042	Hydro	06-08-10	Brandon Meado
2043	Hydro	06-08-10	Brandon Meado
2044	Hydro	06-08-11	Dwayne Northru
2045	Hydro	06-08-11	Dwayne Northru
2046	Hydro	06-08-11	Dwayne Northru
2047	Hydro	06-08-11	Dwayne Northru
2048	Hydro	06-08-11	Dwayne Northru
2049	Hydro	06-08-11	Dwayne Northru
205	Hydro	25-05-06	
2050	Hydro	06-08-11	Dwayne Northru
2051	Hydro	06-08-11	Dwayne Northru
2052	Hydro	06-08-11	Dwayne Northru
2053	Hydro		

---

---

206	Hydro	25-05-06
207	Hydro	25-05-06
208	Hydro	25-05-06
2089	Hydro	06-08-14 Jim Groves
2090	Hydro	06-08-14 Jim Groves
2091	Hydro	06-08-14 Jim Groves
2092	Hydro	06-08-14 Jim Groves
2093	Hydro	06-08-14 Jim Groves
2094	Hydro	06-08-14 Jim Groves
2095	Hydro	06-08-14 Jim Groves
2096	Hydro	06-08-14 Jim Groves
2097	Hydro	06-08-14 Jim Groves
2098	Hydro	06-08-14 Jim Groves
2099	Hydro	06-08-14 Jim Groves
210	Hydro	25-05-06
2100	Hydro	06-08-14 Jim Groves
2101	Hydro	06-08-14 Jim Groves
2102	Hydro	06-08-14 Jim Groves
2103	Hydro	06-08-14 Jim Groves
2104	Hydro	06-08-14 Jim Groves
2105	Hydro	06-08-14 Jim Groves
2106	Hydro	06-08-14 Jim Groves
2107	Hydro	06-08-14 Jim Groves
2108	Hydro	06-08-14 Jim Groves
2109	Hydro	06-08-15 Jim Groves
211	Hydro	25-05-06
2110	Hydro	06-08-15 Jim Groves
2111	Hydro	06-08-15 Jim Groves
2112	Hydro	06-08-15 Jim Groves

---

2113	Hydro	06-08-15	Jim Groves
2114	Hydro	06-08-15	Jim Groves
2115	Hydro	06-08-17	Jim Groves
2117	Hydro	06-08-15	Jim Groves
2118	Hydro	06-08-15	Jim Groves
2119	Hydro	06-08-15	Jim Groves
2120	Hydro	06-08-15	Jim Groves
2121	Hydro	06-08-15	Jim Groves
2122	Hydro	06-08-15	Jim Groves
2123	Hydro	06-08-15	Jim Groves
2124	Hydro	06-08-15	Jim Groves
2125	Hydro	06-08-15	Jim Groves
2126	Hydro	06-08-15	Jim Groves
2127	Hydro	06-08-15	Jim Groves
2128	Hydro	06-08-15	Jim Groves
2129	Hydro	06-08-15	Jim Groves
213	Hydro	06-05-29	Rob Robillard
2130	Hydro	06-08-15	Jim Groves
2131	Hydro	06-08-15	Jim Groves
2132	Hydro	06-08-15	Jim Groves
2133	Hydro	06-08-16	Jim Groves
2134	Hydro	06-08-16	Jim Groves
2136	Hydro	06-08-16	Jim Groves
2137	Hydro	06-08-16	Jim Groves
2138	Hydro	06-08-16	Jim Groves
2139	Hydro	06-08-16	Jim Groves
214	Hydro	06-05-29	Rob Robillard
2142	Hydro	06-08-16	Jim Groves
2143	Hydro	06-08-16	Jim Groves

---

2145	Hydro	06-08-16	Jim Groves
2147	Hydro	06-08-16	Jim Groves
2149	Hydro	06-08-16	Jim Groves
215	Hydro	06-05-29	Rob Robillard
2151	Hydro	06-08-16	Jim Groves
2153	Hydro	06-08-16	Jim Groves
2154	Hydro	06-08-16	Jim Groves
2155	Hydro	06-08-16	Jim Groves
2156	Hydro	06-08-16	Jim Groves
2157	Hydro	06-08-16	Jim Groves
2158	Hydro	06-08-16	Jim Groves
2158	Hydro	06-08-16	Jim Groves
216	Hydro	06-05-29	Rob Robillard
2160	Hydro	06-08-16	Jim Groves
2161	Hydro	06-08-16	Jim Groves
2162	Hydro	06-08-16	Jim Groves
2163	Hydro	06-08-16	Jim Groves
2164	Hydro	06-08-16	Jim Groves
2165	Hydro	06-08-16	Jim Groves
2166	Hydro	06-08-16	Jim Groves
2167	Hydro	06-08-16	Jim Groves
2168	Hydro	06-08-16	Jim Groves
2169	Hydro	06-08-16	Jim Groves
217	Hydro	06-05-29	Rob Robillard
2170	Hydro	06-08-16	Jim Groves
2171	Hydro	06-08-16	Jim Groves
2172	Hydro	06-08-16	Jim Groves
2173	Hydro	06-08-16	Jim Groves
2174	Hydro	06-08-16	Jim Groves

---

2175	Hydro	06-08-16	Jim Groves
2176	Hydro	06-08-16	Jim Groves
2177	Hydro	06-08-16	Jim Groves
2178	Hydro	06-08-16	Jim Groves
2179	Hydro	06-08-16	Jim Groves
2179	Hydro	06-08-16	Jim Groves
218	Hydro	06-05-29	Rob Robillard
2181	Hydro	06-08-16	Jim Groves
2183	Hydro	06-08-17	Jim Groves
2184	Hydro	06-08-17	Jim Groves
2185	Hydro	06-08-17	Jim Groves
2186	Hydro	06-08-17	Jim Groves
2187	Hydro	06-08-17	Jim Groves
2188	Hydro	06-08-17	Jim Groves
2189	Hydro	06-08-17	Jim Groves
2190	Hydro	06-08-17	Jim Groves
2191	Hydro	06-08-17	Jim Groves
2192	Hydro	06-08-17	Jim Groves
2193	Hydro	06-08-17	Jim Groves
2194	Hydro	06-08-17	Jim Groves
2195	Hydro	06-08-17	Jim Groves
2196	Hydro	06-08-17	Jim Groves
2197	Hydro	06-08-17	Jim Groves
2198	Hydro	06-08-17	Jim Groves
2199	Hydro	06-08-17	Jim Groves
22	Hydro		
2200	Hydro	06-08-17	Jim Groves
2201	Hydro	06-08-17	Jim Groves
2202	Hydro	06-08-17	Jim Groves

2203	Hydro	06-08-17	Jim Groves
2204	Hydro	06-08-17	Jim Groves
2205	Hydro	06-08-17	Jim Groves
2206	Hydro	06-08-17	Jim Groves
2207	Hydro	06-08-17	Jim Groves
2208	Hydro	06-08-17	Jim Groves
2209	Hydro	06-08-17	Jim Groves
221	Hydro	06-05-29	Rob Robillard
2210	Hydro	06-08-17	Jim Groves
2211	Hydro	06-08-17	Jim Groves
2212	Hydro	06-08-17	Jim Groves
2213	Hydro	06-08-17	Jim Groves
2214	Hydro	06-08-17	Jim Groves
2216	Hydro	06-08-17	Jim Groves
2217	Hydro	06-08-17	Jim Groves
2217	Hydro	06-08-17	Jim Groves
2218	Hydro	06-08-17	Jim Groves
222	Hydro	06-05-29	Rob Robillard
2220	Hydro	06-08-17	Jim Groves
2221	Hydro	06-08-17	Jim Groves
2222	Hydro	06-08-17	Jim Groves
2223	Hydro	06-08-17	Jim Groves
2224	Hydro	06-08-17	Jim Groves
2225	Hydro	06-08-17	Jim Groves
2226	Hydro	06-08-17	Jim Groves
2227	Hydro	06-08-17	Jim Groves
2228	Hydro	06-08-17	Jim Groves
2229	Hydro	06-08-17	Jim Groves
223	Hydro	06-05-29	Rob Robillard

2230	Hydro	06-08-17	Jim Groves
2231	Hydro	06-08-17	Jim Groves
2232	Hydro	06-08-17	Jim Groves
2232	Hydro	06-08-17	Jim Groves
2234	Hydro	06-08-17	Jim Groves
2234	Hydro	06-08-21	Steve Jackson
2235	Hydro	06-08-17	Jim Groves
2236	Hydro	06-08-17	Jim Groves
2237	Hydro	06-08-17	Jim Groves
2238	Hydro	06-08-17	Jim Groves
2239	Hydro	06-08-17	Jim Groves
224	Hydro	06-05-29	Rob Robillard
2240	Hydro	06-08-17	Jim Groves
2241	Hydro	06-08-17	Jim Groves
2242	Hydro	06-08-17	Jim Groves
2243	Hydro	06-08-17	Jim Groves
2244	Hydro	06-08-17	Jim Groves
2245	Hydro	06-08-17	Jim Groves
2246	Hydro	06-08-17	Jim Groves
2247	Hydro	06-08-17	Jim Groves
2248	Hydro	06-08-17	Jim Groves
2249	Hydro	06-08-17	Jim Groves
2250	Hydro	06-08-17	Jim Groves
2251	Hydro	06-08-18	Jim Groves
2252	Hydro	06-08-18	Jim Groves
2253	Hydro	06-08-18	Jim Groves
2254	Hydro	06-08-18	Jim Groves
2255	Hydro	06-08-18	Jim Groves
2256	Hydro	06-08-18	Jim Groves

2257	Hydro	06-08-18	Jim Groves
2258	Hydro	06-08-18	Jim Groves
2259	Hydro	06-08-18	Jim Groves
2260	Hydro	06-08-18	Jim Groves
2261	Hydro	06-08-18	Jim Groves
2262	Hydro	06-08-18	Jim Groves
2263	Hydro	06-08-18	Jim Groves
2264	Hydro	06-08-18	Jim Groves
2265	Hydro	06-08-18	Jim Groves
2266	Hydro	06-08-18	Jim Groves
2268	Hydro	06-08-18	Jim Groves
2269	Hydro	06-08-18	Jim Groves
2270	Hydro	06-08-18	Jim Groves
2271	Hydro	06-08-18	Jim Groves
2272	Hydro	06-08-18	Jim Groves
2272	Hydro	06-08-18	Jim Groves
2274	Hydro	06-08-18	Jim Groves
2275	Hydro	06-08-18	Jim Groves
2276	Hydro	06-08-18	Jim Groves
2277	Hydro	06-08-21	Steve Jackson
2278	Hydro	06-08-21	Steve Jackson
2279	Hydro	06-08-21	Steve Jackson
228	Hydro	06-05-29	Rob Robillard
2280	Hydro	06-08-21	Steve Jackson
2281	Hydro	06-08-21	Steve Jackson
2282	Hydro	06-08-21	Steve Jackson
2283	Hydro	06-08-21	Steve Jackson
2284	Hydro	06-08-21	Steve Jackson
2285	Hydro	06-08-21	Steve Jackson

2286	Hydro	06-08-21	Steve Jackson
2287	Hydro	06-08-21	Steve Jackson
2288	Hydro	06-08-21	Steve Jackson
2289	Hydro	06-08-21	Steve Jackson
2291	Hydro	06-08-21	Steve Jackson
2292	Hydro	06-08-21	Steve Jackson
2293	Hydro	06-08-21	Steve Jackson
2294	Hydro	06-08-21	Steve Jackson
2295	Hydro	06-08-21	Steve Jackson
2296	Hydro	06-08-21	Steve Jackson
2297	Hydro	06-08-21	Steve Jackson
2298	Hydro	06-08-21	Steve Jackson
2299	Hydro	06-08-21	Steve Jackson
23	Hydro		Jim Groves
230	Hydro	06-05-29	Rob Robillard
2300	Hydro	06-08-21	Steve Jackson
2301	Hydro	06-08-21	Steve Jackson
2302	Hydro	06-08-21	Steve Jackson
2303	Hydro	06-08-21	Steve Jackson
2304	Hydro	06-08-21	Steve Jackson
2305	Hydro	06-08-21	Steve Jackson
2306	Hydro	06-08-21	Steve Jackson
2307	Hydro	06-08-21	Steve Jackson
2308	Hydro	06-08-21	Steve Jackson
2309	Hydro	06-08-21	Steve Jackson
231	Hydro	06-05-29	Rob Robillard
2310	Hydro	06-08-21	Steve Jackson
2311	Hydro	06-08-21	Steve Jackson
2312	Hydro	06-08-21	Steve Jackson

2313	Hydro	06-08-21	Steve Jackson
2314	Hydro	06-08-21	Steve Jackson
2315	Hydro	06-08-21	Steve Jackson
2315	Hydro	06-08-23	Steve Jackson
2316	Hydro	06-08-21	Steve Jackson
2317	Hydro	06-08-21	Steve Jackson
2317	Hydro	06-08-23	Steve Jackson
2318	Hydro	06-08-21	Steve Jackson
2319	Hydro	06-08-21	Steve Jackson
232	Hydro	06-05-29	Rob Robillard
232	Hydro	06-05-29	Rob Robillard
2320	Hydro	06-08-21	Steve Jackson
2321	Hydro	06-08-21	Steve Jackson
2322	Hydro	06-08-21	Steve Jackson
2323	Hydro	06-08-21	Steve Jackson
2324	Hydro	06-08-21	Steve Jackson
2325	Hydro	06-08-21	Steve Jackson
2326	Hydro	06-08-21	Steve Jackson
2327	Hydro	06-08-21	Steve Jackson
2328	Hydro	06-08-21	Steve Jackson
2329	Hydro	06-08-21	Steve Jackson
2330	Hydro	06-08-21	Steve Jackson
2331	Hydro	06-08-21	Steve Jackson
2332	Hydro	06-08-21	Steve Jackson
2335	Hydro	06-08-21	Steve Jackson
2336	Hydro	06-08-21	Steve Jackson
2338	Hydro	06-08-21	Steve Jackson
2339	Hydro	06-08-21	Steve Jackson
234	Hydro	06-05-29	Rob Robillard

---

2340	Hydro	06-08-21	Steve Jackson
2341	Hydro	06-08-21	Steve Jackson
2342	Hydro	06-08-21	Steve Jackson
2343	Hydro	06-08-21	Steve Jackson
2344	Hydro	06-08-21	Steve Jackson
2345	Hydro	06-08-21	Steve Jackson
2346	Hydro	06-08-21	Steve Jackson
2347	Hydro	06-08-21	Steve Jackson
2348	Hydro	06-08-21	Steve Jackson
2349	Hydro	06-08-21	Steve Jackson
235	Hydro	06-05-29	Rob Robillard
2350	Hydro	06-08-22	Steve Jackson
2351	Hydro	06-08-21	Steve Jackson
2352	Hydro	06-08-21	Steve Jackson
2353	Hydro	06-08-21	Steve Jackson
2354	Hydro	06-08-21	Steve Jackson
2355	Hydro	06-08-21	Steve Jackson
2356	Hydro	06-08-21	Steve Jackson
2357	Hydro	06-08-21	Steve Jackson
2358	Hydro	06-08-21	Steve Jackson
2359	Hydro	06-08-21	Steve Jackson
2360	Hydro	06-08-21	Steve Jackson
2361	Hydro	06-08-21	Steve Jackson
2362	Hydro	06-08-21	Steve Jackson
2363	Hydro	06-08-21	Steve Jackson
2364	Hydro	06-08-21	Steve Jackson
2365	Hydro	06-08-21	Steve Jackson
2366	Hydro	06-08-21	Steve Jackson
2366	Hydro	06-08-23	Steve Jackson

---

---

2367	Hydro	06-08-21	Steve Jackson
2368	Hydro	06-08-21	Steve Jackson
2369	Hydro	06-08-21	Steve Jackson
237	Hydro	06-05-29	Rob Robillard
2370	Hydro	06-08-21	Steve Jackson
2371	Hydro	06-08-22	Steve Jackson
2372	Hydro	06-08-22	Steve Jackson
2373	Hydro	06-08-22	Steve Jackson
2374	Hydro	06-08-22	Steve Jackson
2375	Hydro	06-08-22	Steve Jackson
2376	Hydro	06-08-22	Steve Jackson
2377	Hydro	06-08-22	Steve Jackson
2378	Hydro	06-08-22	Steve Jackson
2379	Hydro	06-08-22	Steve Jackson
238	Hydro	06-05-29	Rob Robillard
2380	Hydro	06-08-22	Steve Jackson
2381	Hydro	06-08-22	Steve Jackson
2382	Hydro	06-08-22	Steve Jackson
2383	Hydro	06-08-22	Steve Jackson
2384	Hydro	06-08-22	Steve Jackson
2385	Hydro	06-08-22	Steve Jackson
2386	Hydro	06-08-22	Steve Jackson
2387	Hydro	06-08-22	Steve Jackson
2388	Hydro	06-08-22	Steve Jackson
2389	Hydro	06-08-22	Steve Jackson
239	Hydro	06-05-29	Rob Robillard
2390	Hydro	06-08-22	Steve Jackson
2391	Hydro	06-08-22	Steve Jackson
2392	Hydro	06-08-22	Steve Jackson

---

2393	Hydro	06-08-22	Steve Jackson
2394	Hydro	06-08-22	Steve Jackson
2395	Hydro	06-08-22	Steve Jackson
2396	Hydro	06-08-22	Steve Jackson
2397	Hydro	06-08-22	Steve Jackson
2398	Hydro	06-08-22	Steve Jackson
2399	Hydro	06-08-22	Steve Jackson
24	Hydro		
240	Hydro	06-05-29	Rob Robillard
2400	Hydro	06-08-22	Steve Jackson
2401	Hydro	06-08-22	Steve Jackson
2402	Hydro	06-08-22	Steve Jackson
2403	Hydro	06-08-22	Steve Jackson
2404	Hydro	06-08-22	Steve Jackson
2405	Hydro	06-08-22	Steve Jackson
2406	Hydro	06-08-22	Steve Jackson
2407	Hydro	06-08-22	Steve Jackson
2409	Hydro	06-08-22	Steve Jackson
241	Hydro	06-05-29	Rob Robillard
2410	Hydro	06-08-22	Steve Jackson
2411	Hydro	06-08-22	Steve Jackson
2412	Hydro	06-08-22	Steve Jackson
2413	Hydro	06-08-22	Steve Jackson
2414	Hydro	06-08-23	Steve Jackson
2416	Hydro	06-08-23	Steve Jackson
2418	Hydro	06-08-23	Steve Jackson
2419	Hydro	06-08-23	Steve Jackson
242	Hydro	06-05-29	Rob Robillard
2420	Hydro	06-08-23	Steve Jackson

---

2421	Hydro	06-08-23	Steve Jackson
2422	Hydro	06-08-23	Steve Jackson
2423	Hydro	06-08-23	Steve Jackson
2424	Hydro	06-08-23	Steve Jackson
2425	Hydro	06-08-23	Steve Jackson
2426	Hydro	06-08-23	Steve Jackson
2427	Hydro	06-08-23	Steve Jackson
2428	Hydro	06-08-23	Steve Jackson
2429	Hydro	06-08-23	Steve Jackson
243	Hydro	06-05-29	Rob Robillard
2430	Hydro	06-08-23	Steve Jackson
2431	Hydro	06-08-23	Steve Jackson
2432	Hydro	06-08-23	Steve Jackson
2434	Hydro	06-08-23	Steve Jackson
2435	Hydro	06-08-23	Steve Jackson
2436	Hydro	06-08-23	Steve Jackson
2437	Hydro	06-08-23	Steve Jackson
2438	Hydro	06-08-23	Steve Jackson
2439	Hydro	06-08-23	Steve Jackson
2440	Hydro	06-08-23	Steve Jackson
2441	Hydro	06-08-23	Steve Jackson
2442	Hydro	06-08-23	Steve Jackson
2443	Hydro	06-08-23	Steve Jackson
2444	Hydro	06-08-23	Steve Jackson
2445	Hydro	06-08-23	Steve Jackson
2446	Hydro	06-08-23	Steve Jackson
2447	Hydro	06-08-23	Steve Jackson
2448	Hydro	06-08-23	Steve Jackson
2449	Hydro	06-08-23	Steve Jackson

---

---

2450	Hydro	06-08-23	Steve Jackson
2451	Hydro	06-08-23	Steve Jackson
2452	Hydro	06-08-23	Steve Jackson
2453	Hydro	06-08-23	Steve Jackson
2454	Hydro	06-08-23	Steve Jackson
2455	Hydro	06-08-23	Steve Jackson
2456	Hydro	06-08-23	Steve Jackson
2457	Hydro	06-08-23	Steve Jackson
2458	Hydro	06-08-23	Steve Jackson
2459	Hydro	06-08-23	Steve Jackson
246	Hydro	06-05-29	Rob Robillard
2460	Hydro	06-08-23	Steve Jackson
2461	Hydro	06-08-23	Steve Jackson
2462	Hydro	06-08-23	Steve Jackson
2463	Hydro	06-08-23	Steve Jackson
2464	Hydro	06-08-23	Steve Jackson
2465	Hydro	06-08-23	Steve Jackson
2467	Hydro	06-08-23	Steve Jackson
2468	Hydro	06-08-23	Steve Jackson
2469	Hydro	06-08-23	Steve Jackson
2470	Hydro	06-08-23	Steve Jackson
2471	Hydro	06-08-23	Steve Jackson
2472	Hydro	06-08-23	Steve Jackson
2473	Hydro	06-08-25	Steve Jackson
2474	Hydro	06-08-25	Steve Jackson
2475	Hydro	06-08-25	Steve Jackson
2476	Hydro	06-08-25	Steve Jackson
2477	Hydro	06-08-25	Steve Jackson
2478	Hydro	06-08-25	Steve Jackson

---

2479	Hydro	06-08-25	Steve Jackson
248	Hydro	06-05-29	Rob Robillard
2480	Hydro	06-08-25	Steve Jackson
2481	Hydro	06-08-25	Steve Jackson
2482	Hydro	06-08-25	Steve Jackson
2483	Hydro	06-08-25	Steve Jackson
2484	Hydro	06-08-25	Steve Jackson
2485	Hydro	06-08-25	Steve Jackson
2486	Hydro	06-08-25	Steve Jackson
2488	Hydro	06-08-28	Steve Jackson
2489	Hydro	06-08-28	Steve Jackson
249	Hydro	06-05-29	Rob Robillard
2490	Hydro	06-08-28	Steve Jackson
2491	Hydro	06-08-28	Steve Jackson
2492	Hydro	06-08-28	Steve Jackson
2493	Hydro	06-08-28	Steve Jackson
2494	Hydro	06-08-28	Steve Jackson
2495	Hydro	06-08-28	Steve Jackson
2496	Hydro	06-08-28	Steve Jackson
2497	Hydro	06-08-28	Steve Jackson
2498	Hydro	06-08-28	Steve Jackson
2499	Hydro	06-08-28	Steve Jackson
25	Hydro		
250	Hydro	06-05-29	Rob Robillard
2500	Hydro	06-08-28	Steve Jackson
2501	Hydro	06-08-28	Steve Jackson
2502	Hydro	06-08-28	Steve Jackson
2503	Hydro	06-08-28	Steve Jackson
2504	Hydro	06-08-28	Steve Jackson

2505	Hydro	06-08-28	Steve Jackson
2506	Hydro	06-08-28	Steve Jackson
2507	Hydro	06-08-28	Steve Jackson
2508	Hydro	06-08-28	Steve Jackson
2509	Hydro	06-08-28	Steve Jackson
251	Hydro	06-05-29	Rob Robillard
2510	Hydro	06-08-28	Steve Jackson
2511	Hydro	06-08-28	Steve Jackson
2512	Hydro	06-08-28	Steve Jackson
2513	Hydro	06-08-28	Steve Jackson
2514	Hydro	06-08-28	Steve Jackson
2515	Hydro	06-08-28	Steve Jackson
2516	Hydro	06-08-28	Steve Jackson
2517	Hydro	06-08-28	Steve Jackson
2518	Hydro	06-08-28	Steve Jackson
2519	Hydro	06-08-28	Steve Jackson
2520	Hydro	06-08-28	Steve Jackson
2521	Hydro	06-08-28	Steve Jackson
2522	Hydro	06-08-28	Steve Jackson
2523	Hydro	06-08-28	Steve Jackson
2524	Hydro	06-08-28	Steve Jackson
2525	Hydro	06-08-28	Steve Jackson
2525	Hydro	06-08-28	Steve Jackson
2526	Hydro	06-08-30	Steve Jackson
2527	Hydro	06-08-28	Steve Jackson
2528	Hydro	06-08-28	Steve Jackson
2529	Hydro	06-08-28	Steve Jackson
253	Hydro	06-05-30	Rob Robillard
2530	Hydro	06-08-28	Steve Jackson

2531	Hydro	06-08-28	Steve Jackson
2532	Hydro	06-08-28	Steve Jackson
2533	Hydro	06-08-28	Steve Jackson
2534	Hydro	06-08-28	Steve Jackson
2535	Hydro	06-08-28	Steve Jackson
2536	Hydro	06-08-28	Steve Jackson
2537	Hydro	06-08-28	Steve Jackson
2538	Hydro	06-08-28	Steve Jackson
2539	Hydro	06-08-28	Steve Jackson
254	Hydro	06-05-30	Rob Robillard
2540	Hydro	06-08-28	Steve Jackson
2541	Hydro	06-08-28	Steve Jackson
2542	Hydro	06-08-28	Steve Jackson
2543	Hydro	06-08-28	Steve Jackson
2544	Hydro	06-08-28	Steve Jackson
2545	Hydro	06-08-28	Steve Jackson
2546	Hydro	06-08-28	Steve Jackson
2547	Hydro	06-08-28	Steve Jackson
2548	Hydro	06-08-28	Steve Jackson
2549	Hydro	06-08-28	Steve Jackson
255	Hydro	06-05-30	Rob Robillard
2550	Hydro	06-08-28	Steve Jackson
2551	Hydro	06-08-28	Steve Jackson
2552	Hydro	06-08-28	Steve Jackson
2553	Hydro	06-08-28	Steve Jackson
2554	Hydro	06-08-28	Steve Jackson
2555	Hydro	06-08-28	Steve Jackson
2556	Hydro	06-08-29	Steve Jackson
2557	Hydro	06-08-29	Steve Jackson

---

2558	Hydro	06-08-29	Steve Jackson
2559	Hydro	06-08-29	Steve Jackson
2560	Hydro	06-08-29	Steve Jackson
2561	Hydro	06-08-29	Steve Jackson
2562	Hydro	06-08-29	Steve Jackson
2563	Hydro	06-08-29	Steve Jackson
2564	Hydro	06-08-29	Steve Jackson
2565	Hydro	06-08-29	Steve Jackson
2566	Hydro	06-08-29	Steve Jackson
2567	Hydro	06-08-29	Steve Jackson
2568	Hydro	06-08-29	Steve Jackson
2569	Hydro	06-08-29	Steve Jackson
2570	Hydro	06-08-29	Steve Jackson
2571	Hydro	06-08-29	Steve Jackson
2572	Hydro	06-08-29	Steve Jackson
2573	Hydro	06-08-29	Steve Jackson
2574	Hydro	06-08-29	Steve Jackson
2575	Hydro	06-08-29	Steve Jackson
2576	Hydro	06-08-29	Steve Jackson
2577	Hydro	06-08-29	Steve Jackson
2578	Hydro	06-08-29	Steve Jackson
2579	Hydro	06-08-29	Steve Jackson
2580	Hydro	06-08-29	Steve Jackson
2581	Hydro	06-08-29	Steve Jackson
2582	Hydro	06-08-29	Steve Jackson
2583	Hydro	06-08-29	Steve Jackson
2584	Hydro	06-08-29	Steve Jackson
2585	Hydro	06-08-29	Steve Jackson
2586	Hydro	06-08-29	Steve Jackson

---

2587	Hydro	06-08-29	Steve Jackson
2588	Hydro	06-08-29	Steve Jackson
2589	Hydro	06-08-29	Steve Jackson
259	Hydro	06-05-30	Rob Robillard
2590	Hydro	06-08-29	Steve Jackson
2591	Hydro	06-08-29	Steve Jackson
2592	Hydro	06-08-29	Steve Jackson
2593	Hydro	06-08-29	Steve Jackson
2594	Hydro	06-08-29	Steve Jackson
2595	Hydro	06-08-29	Steve Jackson
2596	Hydro	06-08-29	Steve Jackson
2597	Hydro	06-08-29	Steve Jackson
2597	Hydro	06-08-29	Steve Jackson
2599	Hydro	06-08-29	Steve Jackson
26	Hydro		
2600	Hydro	06-08-29	Steve Jackson
2601	Hydro	06-08-29	Steve Jackson
2602	Hydro	06-08-29	Steve Jackson
2603	Hydro	06-08-29	Steve Jackson
2604	Hydro	06-08-29	Steve Jackson
2605	Hydro	06-08-29	Steve Jackson
2606	Hydro	06-08-29	Steve Jackson
2607	Hydro	06-08-29	Steve Jackson
2608	Hydro	06-08-29	Steve Jackson
2609	Hydro	06-08-29	Steve Jackson
261	Hydro	06-05-30	Rob Robilliard
2610	Hydro	06-08-29	Steve Jackson
2611	Hydro	06-08-29	Steve Jackson
2612	Hydro	06-08-30	Steve Jackson

---

2613	Hydro	06-08-30	Steve Jackson
2614	Hydro	06-08-30	Steve Jackson
2615	Hydro	06-08-30	Steve Jackson
2615	Hydro	06-08-30	Steve Jackson
2617	Hydro	06-08-30	Steve Jackson
2618	Hydro	06-08-30	Steve Jackson
2619	Hydro	06-08-30	Steve Jackson
262	Hydro	06-05-30	Rob Robilliard
2620	Hydro	06-08-30	Steve Jackson
2621	Hydro	06-08-30	Steve Jackson
2622	Hydro	06-08-30	Steve Jackson
2623	Hydro	06-08-30	Steve Jackson
2624	Hydro	06-08-30	Steve Jackson
2625	Hydro	06-08-30	Steve Jackson
2627	Hydro	06-08-30	Steve Jackson
2628	Hydro	06-08-30	Steve Jackson
2629	Hydro	06-08-30	Steve Jackson
2630	Hydro	06-08-30	Steve Jackson
2631	Hydro	06-08-30	Steve Jackson
2632	Hydro	06-08-30	Steve Jackson
2633	Hydro	06-08-30	Steve Jackson
2634	Hydro	06-08-30	Steve Jackson
2635	Hydro	06-08-30	Steve Jackson
2636	Hydro	06-08-30	Steve Jackson
2637	Hydro	06-08-30	Steve Jackson
2638	Hydro	06-08-30	Steve Jackson
2639	Hydro	06-08-30	Steve Jackson
264	Hydro	06-05-30	Rob Robilliard
2640	Hydro	06-08-30	Steve Jackson

---

2641	Hydro	06-08-30	Steve Jackson
2642	Hydro	06-08-30	Steve Jackson
2645	Hydro	06-08-30	Steve Jackson
2646	Hydro	06-08-30	Steve Jackson
2647	Hydro	06-08-30	Steve Jackson
2648	Hydro	06-08-30	Steve Jackson
265	Hydro	06-05-30	Rob Robilliard
267	Hydro	06-05-30	Rob Robilliard
268	Hydro	06-05-30	Rob Robilliard
270	Hydro	06-05-30	Rob Robilliard
274	Hydro	06-05-30	Rob Robilliard
276	Hydro	06-05-30	Rob Robilliard
277	Hydro	06-05-30	Rob Robilliard
279	Hydro	06-05-30	Rob Robilliard
280	Hydro	06-05-30	Rob Robilliard
281	Hydro	06-05-30	Rob Robilliard
284	Hydro	06-05-30	Rob Robilliard
285	Hydro	06-05-30	Rob Robilliard
288	Hydro	06-05-30	Rob Robilliard
289	Hydro	06-05-30	Rob Robilliard
29	Hydro		
290	Hydro	06-05-30	Rob Robilliard
291	Hydro	06-05-30	Rob Robilliard
292	Hydro	06-05-30	Rob Robilliard
294	Hydro	06-06-02	Rob Robilliard
297	Hydro	06-06-02	Rob Robilliard
298	Hydro	06-06-02	Rob Robilliard
299	Hydro	06-06-02	Rob Robilliard
30	Hydro		

300	Hydro	06-06-02	Rob Robilliard	
301	Hydro	06-06-02	Rob Robilliard	
302	Hydro	06-06-02	Rob Robilliard	
304	Hydro	06-06-02	Rob Robilliard	
305	Hydro	06-06-02	Rob Robilliard	
306	Hydro	06-06-02	Rob Robilliard	
308	Hydro	06-06-02	Rob Robilliard	fiber extension
31	Hydro			
310	Hydro	06-06-02	Rob Robilliard	
311	Hydro	06-06-02	Rob Robilliard	
312	Hydro	06-06-02	Rob Robilliard	
313	Hydro	06-06-02	Rob Robilliard	
314	Hydro	06-06-02	Rob Robilliard	
315	Hydro	06-06-02	Rob Robilliard	
316	Hydro	06-06-02	Rob Robilliard	
317	Hydro	06-06-02	Rob Robilliard	
318	Hydro	06-06-02	Rob Robilliard	
32	Hydro			
320	Hydro/Hydro O	06-06-05	Brandon Meado	
321	Hydro/Hydro O	06-06-05	Brandon Meado	
322	Hydro/Hydro O	06-06-05	Brandon Meado	
323	Hydro/Hydro O	06-06-05	Brandon Meado	
324	Hydro/Hydro O	06-06-05	Brandon Meado	
325	Hydro/Hydro O	06-06-05	Brandon Meado	
326	Hydro/Hydro O	06-06-05	Brandon Meado	
327	Hydro/Hydro O	06-06-05	Brandon Meado	
328	Hydro/Hydro O	06-06-05	Brandon Meado	
329	Hydro/Hydro O	06-06-05	Brandon Meado	
33	Hydro			

---

330	Hydro/Hydro O	06-06-05	Brandon Meado
331	Hydro/Hydro O	06-06-05	Brandon Meado
332	Hydro/Hydro O	06-06-05	Brandon Meado
333	Hydro/Hydro O	06-06-05	Brandon Meado
334	Hydro/Hydro O	06-06-05	Brandon Meado
335	Hydro	06-06-05	Brandon Meado
336	Hydro	06-06-05	Brandon Meado
337	Hydro	06-06-05	Brandon Meado
338	Hydro	06-06-05	Brandon Meado
339	Hydro	06-06-05	Brandon Meado
34	Hydro		
34	Hydro		
340	Hydro	06-06-05	Brandon Meado
341	Hydro	06-06-05	Brandon Meado
342	Hydro	06-06-05	Brandon Meado
343	Hydro	06-06-05	Brandon Meado
344	Hydro	06-06-05	Brandon Meado
345	Hydro	06-06-05	Brandon Meado
346	Hydro	06-06-05	Brandon Meado
347	Hydro	06-06-05	Brandon Meado
348	Hydro	06-06-05	Brandon Meado
349	Hydro	06-06-05	Brandon Meado
35	Hydro		
350	Hydro	06-06-05	Brandon Meado
351	Hydro	06-06-05	Brandon Meado
352	Hydro	06-06-05	Brandon Meado
353	Hydro	06-06-05	Brandon Meado
354	Hydro	06-06-05	Brandon Meado
355	Hydro	06-06-05	Brandon Meado

---

---

356	Hydro	06-06-05	Brandon Meado
357	Hydro	06-06-05	Brandon Meado
358	Hydro	06-06-05	Brandon Meado
359	Hydro	06-06-05	Brandon Meado
36	Hydro		
360	Hydro	06-06-05	Brandon Meado
361	Hydro	06-06-05	Brandon Meado
362	Hydro	06-06-06	Brandon Meado
363	Hydro	06-06-06	Brandon Meado
364	Hydro	06-06-06	Brandon Meado
365	Hydro	06-06-06	Brandon Meado
366	Hydro	06-06-06	Brandon Meado
367	Hydro	06-06-06	Brandon Meado
368	Hydro	06-06-06	Brandon Meado
369	Hydro	06-06-06	Brandon Meado
37	Hydro		
37	Hydro	06-06-22	Jim Groves
370	Hydro	06-06-06	Brandon Meado
371	Hydro	06-06-06	Brandon Meado
372	Hydro	06-06-06	Brandon Meado
373	Hydro/Hydro O	06-06-06	Brandon Meado
374	Hydro	06-06-06	Brandon Meado
375	Hydro	06-06-06	Brandon Meado
376	Hydro	06-06-06	Brandon Meado
377	Hydro	06-06-06	Brandon Meado
378	Hydro	06-06-06	Brandon Meado
379	Hydro	06-06-06	Brandon Meado
38	Hydro		
380	Hydro	06-06-06	Brandon Meado

---

---

381	Hydro	06-06-06	Brandon Meado
382	Hydro	06-06-06	Brandon Meado
383	Hydro	06-06-06	Brandon Meado
384	Hydro	06-06-06	Brandon Meado
385	Hydro	06-06-06	Brandon Meado
386	Hydro	06-06-06	Brandon Meado
387	Hydro	06-06-06	Brandon Meado
388	Hydro	06-06-06	Brandon Meado
389	Hydro	06-06-06	Brandon Meado
39	Hydro		
390	Hydro	06-06-06	Brandon Meado
391	Hydro	06-06-06	Brandon Meado
392	Hydro	06-06-06	Brandon Meado
393	Hydro	06-06-06	Brandon Meado
394	Hydro	06-06-06	Brandon Meado
395	Hydro	06-06-06	Brandon Meado
396	Hydro	06-06-06	Brandon Meado
397	Hydro	06-06-06	Brandon Meado
398	Hydro	06-06-19	Jim Groves
399	Hydro	06-06-06	Brandon Meado
40	Hydro		
400	Hydro	06-06-06	Brandon Meado
401	Hydro	06-06-06	Brandon Meado
402	Hydro	06-06-06	Brandon Meado
403	Hydro	06-06-06	Brandon Meado
404	Hydro	06-06-06	Brandon Meado
405	Hydro	06-06-06	Brandon Meado
406	Hydro	06-06-06	Brandon Meado
407	Hydro	06-06-06	Brandon Meado

---

---

41	Hydro		
410	Hydro	06-06-07	Brandon Meado
411	Hydro	06-06-07	Brandon Meado
412	Hydro	06-06-07	Brandon Meado
413	Hydro	06-06-07	Brandon Meado
414	Hydro	06-06-07	Brandon Meado
415	Hydro	06-06-07	Brandon Meado
416	Hydro	06-06-07	Brandon Meado
417	Hydro	06-06-07	Brandon Meado
418	Hydro	06-06-07	Brandon Meado
419	Hydro	06-06-07	Brandon Meado
42	Hydro		
420	Hydro	06-06-07	Brandon Meado
421	Hydro	06-06-07	Brandon Meado
422	Hydro	06-06-07	Brandon Meado
423	Hydro	06-06-07	Brandon Meado
424	Hydro	06-06-07	Brandon Meado
425	Hydro	06-06-07	Brandon Meado
426	Hydro	06-06-07	Brandon Meado
427	Hydro	06-06-07	Brandon Meado
428	Hydro	06-06-07	Brandon Meado
429	Hydro	06-06-07	Brandon Meado
43	Hydro		
431	Hydro	06-06-07	Brandon Meado
432	Hydro	06-06-07	Brandon Meado
433	Hydro	06-06-07	Brandon Meado
434	Hydro	06-06-07	Brandon Meado
435	Hydro	06-06-07	Brandon Meado
436	Hydro	06-06-07	Brandon Meado

---

---

437	Hydro	06-06-07	Brandon Meado
439	Hydro	06-06-07	Brandon Meado
44	Hydro		
441	Hydro	06-06-07	Brandon Meado
442	Hydro	06-06-07	Brandon Meado
443	Hydro	06-06-07	Brandon Meado
444	Hydro	06-06-07	Brandon Meado
445	Hydro	06-06-07	Brandon Meado
446	Hydro	06-06-07	Brandon Meado
447	Hydro	06-06-07	Brandon Meado
448	Hydro	06-06-07	Brandon Meado
449	Hydro	06-06-07	Brandon Meado
45	Hydro		
450	Hydro	06-06-07	Brandon Meado
451	Hydro	06-06-07	Brandon Meado
452	Hydro	06-06-08	Brandon Meado
453	Hydro	06-06-08	Brandon Meado
454	Hydro	06-06-08	Brandon Meado
455	Hydro	06-06-08	Brandon Meado
456	Hydro	06-06-08	Brandon Meado
457	Hydro	06-06-08	Brandon Meado
458	Hydro	06-06-08	Brandon Meado
459	Hydro	06-06-08	Brandon Meado
460	Hydro	06-06-08	Brandon Meado
461	Hydro	06-06-08	Brandon Meado
462	Hydro	06-06-08	Brandon Meado
463	Hydro	06-06-08	Brandon Meado
464	Hydro	06-06-08	Brandon Meado
465	Hydro	06-06-08	Brandon Meado

---

466	Hydro	06-06-08	Brandon Meado
467	Hydro	06-06-08	Brandon Meado
468	Hydro	06-06-08	Brandon Meado
471	Hydro/Hydro O	06-06-09	Brandon Meado
472	Hydro	06-06-09	Brandon Meado
473	Hydro	06-06-09	Brandon Meado
474	Hydro	06-06-09	Brandon Meado
475	Hydro	06-06-09	Brandon Meado
476	Hydro	06-06-09	Brandon Meado
477	Hydro	06-06-09	Brandon Meado
478	Hydro	06-06-09	Brandon Meado
479	Hydro	06-06-09	Brandon Meado
480	Hydro	06-06-09	Brandon Meado
481	Hydro	06-06-09	Brandon Meado
482	Hydro	06-06-09	Brandon Meado
483	Hydro	06-06-13	Jim Groves
487	Hydro	06-06-12	Jim Groves
488	Hydro	06-06-12	Jim Groves
489	Hydro	06-06-12	Jim Groves
49	Hydro		
490	Hydro	06-06-12	Jim Groves
491	Hydro	06-06-12	Jim Groves
492	Hydro	06-06-12	Jim Groves
496	Hydro	06-06-12	Jim Groves
497	Hydro	06-06-12	Jim Groves
498	Hydro	06-06-12	Jim Groves
499	Hydro	06-06-12	Jim Groves
50	Hydro		
500	Hydro	06-06-12	Jim Groves

---

501	Hydro	06-06-12	Jim Groves
502	Hydro	06-06-12	Jim Groves
503	Hydro	06-06-12	Jim Groves
504	Hydro	06-06-12	Jim Groves
505	Hydro	06-06-12	Jim Groves
506	Hydro	06-06-12	Jim Groves
508	Hydro	06-06-12	Jim Groves
509	Hydro	06-06-12	Jim Groves
51	Hydro		
510	Hydro	06-06-12	Jim Groves
512	Hydro	06-06-12	Jim Groves
513	Hydro	06-06-12	Jim Groves
514	Hydro	06-06-12	Jim Groves
515	Hydro	06-06-12	Jim Groves
516	Hydro	06-06-12	Jim Groves
517	Hydro	06-06-12	Jim Groves
518	Hydro	06-06-12	Jim Groves
519	Hydro	06-06-12	Jim Groves
52	Hydro		
520	Hydro	06-06-12	Jim Groves
521	Hydro	06-06-12	Jim Groves
522	Hydro	06-06-12	Jim Groves
523	Hydro	06-06-12	Jim Groves
524	Hydro	06-06-12	Jim Groves
525	Hydro	06-06-12	Jim Groves
526	Hydro	06-06-12	Jim Groves
527	Hydro	06-06-12	Jim Groves
529	Hydro	06-06-12	Jim Groves
53	Hydro		

---

---

530	Hydro	06-06-12	Jim Groves	
531	Hydro	06-06-12	Jim Groves	
532	Hydro	06-06-12	Jim Groves	
533	Hydro	06-06-12	Jim Groves	
534	Hydro	06-06-12	Jim Groves	
536	Hydro	06-06-12	Jim Groves	
537	Hydro	06-06-12	Jim Groves	
538	Hydro	06-06-12	Jim Groves	
539	Hydro	06-06-12	Jim Groves	
540	Hydro	06-06-12	Jim Groves	
541	Hydro	06-06-12	Jim Groves	depowered streetlight
542	Hydro	06-06-13	Jim Groves	
543	Hydro	06-06-13	Jim Groves	
544	Hydro	06-06-13	Jim Groves	
545	Hydro	06-06-13	Jim Groves	
546	Hydro	06-06-13	Jim Groves	
547	Hydro	06-06-13	Jim Groves	
549	Hydro	06-06-13	Jim Groves	
55	Hydro			
550	Hydro	06-06-13	Jim Groves	
551	Hydro	06-06-13	Jim Groves	
552	Hydro	06-06-13	Jim Groves	
553	Hydro	06-06-13	Jim Groves	
554	Hydro	06-06-13	Jim Groves	
555	Hydro	06-06-13	Jim Groves	
556	Hydro	06-06-13	Jim Groves	
557	Hydro	06-06-13	Jim Groves	
558	Hydro	06-06-13	Jim Groves	
559	Hydro	06-06-13	Jim Groves	

---

---

56	Hydro		
560	Hydro	06-06-13	Jim Groves
561	Hydro	06-06-13	Jim Groves
562	Hydro	06-06-13	Jim Groves
563	Hydro	06-06-13	Jim Groves
564	Hydro	06-06-13	Jim Groves
565	Hydro	06-06-13	Jim Groves
567	Hydro	06-06-13	Jim Groves
568	Hydro	06-06-13	Jim Groves
569	Hydro	06-06-13	Jim Groves
57	Hydro		
570	Hydro	06-06-13	Jim Groves
571	Hydro	06-06-13	Jim Groves
572	Hydro	06-06-13	Jim Groves
573	Hydro	06-06-13	Jim Groves
574	Hydro	06-06-13	Jim Groves
575	Hydro	06-06-13	Jim Groves
576	Hydro	06-06-13	Jim Groves
577	Hydro	06-06-13	Jim Groves
578	Hydro	06-06-13	Jim Groves
579	Hydro	06-06-13	Jim Groves
58	Hydro/Cogeco		
580	Hydro	06-06-13	Jim Groves
581	Hydro	06-06-13	Jim Groves
582	Hydro	06-06-13	Jim Groves
583	Hydro	06-06-13	Jim Groves
584	Hydro	06-06-13	Jim Groves
586	Hydro	06-06-14	Steve Jackson
587	Hydro	06-06-14	Steve Jackson

---

---

588	Hydro	06-06-14	Steve Jackson
589	Hydro	06-06-14	Steve Jackson
59	Hydro		
590	Hydro	06-06-14	Steve Jackson
591	Hydro	06-06-14	Steve Jackson
592	Hydro	06-06-14	Steve Jackson
593	Hydro	06-06-14	Steve Jackson
594	Hydro	06-06-14	Steve Jackson
595	Hydro	06-06-14	Steve Jackson
596	Hydro	06-06-14	Steve Jackson
597	Hydro	06-06-14	Steve Jackson
598	Hydro	06-06-14	Steve Jackson
599	Hydro	06-06-14	Steve Jackson
6	Hydro		
600	Hydro	06-06-14	Steve Jackson
601	Hydro	06-06-14	Steve Jackson
603	Hydro	06-06-14	Steve Jackson
604	Hydro	06-06-05	Brandon Meado
604	Hydro	06-06-14	Steve Jackson
605	Hydro	06-06-14	Steve Jackson
606	Hydro	06-06-14	Steve Jackson
607	Hydro	06-06-14	Steve Jackson
608	Hydro	06-06-14	Steve Jackson
609	Hydro	06-06-14	Steve Jackson
61	Hydro		
610	Hydro	06-06-14	Steve Jackson
611	Hydro	06-06-14	Steve Jackson
612	Hydro	06-06-14	Steve Jackson
613	Hydro	06-06-15	Jim Groves

---

---

614	Hydro	06-06-15	Jim Groves
615	Hydro	06-06-15	Jim Groves
616	Hydro	06-06-15	Jim Groves
617	Hydro	06-06-15	Jim Groves
618	Hydro	06-06-15	Jim Groves
619	Hydro	06-06-15	Jim Groves
620	Hydro	06-06-15	Jim Groves
621	Hydro	06-06-15	Jim Groves
622	Hydro	06-06-15	Jim Groves
623	Hydro	06-06-15	Jim Groves
624	Hydro	06-06-15	Jim Groves
625	Hydro	06-06-15	Jim Groves
626	Hydro	06-06-15	Jim Groves
627	Hydro	06-06-15	Jim Groves
628	Hydro	06-06-15	Jim Groves
629	Hydro	06-06-15	Jim Groves
63	Hydro		
630	Hydro	06-06-15	Jim Groves
631	Hydro	06-06-15	Jim Groves
632	Hydro	06-06-15	Jim Groves
633	Hydro	06-06-15	Jim Groves
634	Hydro	06-06-15	Jim Groves
635	Hydro	06-06-15	Jim Groves
636	Hydro	06-06-15	Jim Groves
637	Hydro	06-06-15	Jim Groves
638	Hydro	06-06-15	Jim Groves
639	Hydro	06-06-15	Jim Groves
64	Hydro		
640	Hydro	06-06-15	Jim Groves

---

---

641	Hydro	06-06-15	Jim Groves
642	Hydro	06-06-15	Jim Groves
643	Hydro	06-06-15	Jim Groves
644	Hydro	06-06-15	Jim Groves
645	Hydro	06-06-15	Jim Groves
646	Hydro	06-06-15	Jim Groves
647	Hydro	06-06-15	Jim Groves
648	Hydro	06-06-15	Jim Groves
649	Hydro	06-06-15	Jim Groves
650	Hydro	06-06-15	Jim Groves
651	Hydro	06-06-15	Jim Groves
652	Hydro	06-06-15	Jim Groves
653	Hydro	06-06-15	Jim Groves
654	Hydro	06-06-15	Jim Groves
655	Hydro	06-06-15	Jim Groves
655	Hydro	06-06-19	Jim Groves
658	Hydro	06-06-19	Jim Groves
659	Hydro	06-06-19	Jim Groves
66	Hydro		
660	Hydro	06-06-19	Jim Groves
661	Hydro	06-06-19	Jim Groves
662	Hydro	06-06-19	Jim Groves
663	Hydro	06-06-19	Jim Groves
664	Hydro	06-06-19	Jim Groves
665	Hydro	06-06-19	Jim Groves
666	Hydro	06-06-19	Jim Groves
667	Hydro	06-06-19	Jim Groves
668	Hydro	06-06-19	Jim Groves
669	Hydro	06-06-19	Jim Groves

---

---

67	Hydro	
671	Hydro	06-06-19 Jim Groves
672	Hydro	06-06-19 Jim Groves
674	Hydro	06-06-19 Jim Groves
675	Hydro	06-06-19 Jim Groves
676	Hydro	06-06-19 Jim Groves
677	Hydro	06-06-19 Jim Groves
678	Hydro	06-06-19 Jim Groves
679	Hydro	06-06-19 Jim Groves
68	Hydro	
680	Hydro	06-06-19 Jim Groves
681	Hydro	06-06-19 Jim Groves
682	Hydro	06-06-19 Jim Groves
683	Hydro	06-06-19 Jim Groves
684	Hydro	06-06-19 Jim Groves
685	Hydro	06-06-19 Jim Groves
686	Hydro	06-06-19 Jim Groves
687	Hydro	06-06-19 Jim Groves
688	Hydro	06-06-19 Jim Groves
689	Hydro	06-06-19 Jim Groves
69	Hydro	
690	Hydro	06-06-19 Jim Groves
691	Hydro	06-06-19 Jim Groves
692	Hydro	06-06-19 Jim Groves
693	Hydro	06-06-19 Jim Groves
694	Hydro	06-06-19 Jim Groves
695	Hydro	06-06-19 Jim Groves
696	Hydro	06-06-19 Jim Groves
697	Hydro	06-06-19 Jim Groves

---

---

699	Hydro	06-06-19	Jim Groves
7	Hydro		
700	Hydro	06-06-19	Jim Groves
701	Hydro	06-06-19	Jim Groves
702	Hydro	06-06-19	Jim Groves
703	Hydro	06-06-19	Jim Groves
704	Hydro	06-06-19	Jim Groves
705	Hydro	06-06-19	Jim Groves
706	Hydro	06-06-19	Jim Groves
707	Hydro	06-06-19	Jim Groves
708	Hydro	06-06-19	Jim Groves
709	Hydro	06-06-19	Jim Groves
71	Hydro		
710	Hydro	06-06-19	Jim Groves
711	Hydro	06-06-19	Jim Groves
712	Hydro	06-06-19	Jim Groves
713	Hydro	06-06-19	Jim Groves
714	Hydro	06-06-19	Jim Groves
715	Hydro	06-06-19	Jim Groves
716	Hydro	06-06-19	Jim Groves
717	Hydro	06-06-20	Steve Jackson
718	Hydro	06-06-20	Steve Jackson
719	Hydro	06-06-20	Steve Jackson
72	Hydro		
720	Hydro	06-06-20	Steve Jackson
721	Hydro	06-06-20	Steve Jackson
722	Hydro	06-06-20	Steve Jackson
723	Hydro	06-06-20	Steve Jackson
724	Hydro	06-06-20	Steve Jackson

---

---

725	Hydro	06-06-20	Steve Jackson
726	Hydro	06-06-20	Steve Jackson
727	Hydro	06-06-20	Steve Jackson
728	Hydro	06-06-20	Steve Jackson
729	Hydro	06-06-20	Steve Jackson
73	Hydro		
730	Hydro	06-06-20	Steve Jackson
731	Hydro	06-06-20	Steve Jackson
732	Hydro	06-06-20	Steve Jackson
734	Hydro	06-06-20	Steve Jackson
735	Hydro	06-06-20	Steve Jackson
736	Hydro	06-06-20	Steve Jackson
738	Hydro	06-06-20	Jim Groves
739	Hydro	06-06-20	Jim Groves
74	Hydro		
740	Hydro	06-06-20	Jim Groves
741	Hydro	06-06-20	Jim Groves
742	Hydro	06-06-20	Jim Groves
743	Hydro	06-06-20	Jim Groves
743	Hydro	06-06-20	Jim Groves
745	Hydro	06-06-20	Jim Groves
746	Hydro	06-06-20	Jim Groves
747	Hydro	06-06-20	Jim Groves
748	Hydro	06-06-20	Jim Groves
749	Hydro	06-06-20	Jim Groves
75	Hydro		
750	Hydro	06-06-20	Jim Groves
751	Hydro	06-06-20	Jim Groves
753	Hydro	06-06-20	Jim Groves

---

---

754	Hydro	06-06-20	Jim Groves
755	Hydro	06-06-20	Jim Groves
756	Hydro	06-06-20	Jim Groves
757	Hydro	06-06-20	Jim Groves
758	Hydro	06-06-20	Jim Groves
759	Hydro	06-06-20	Jim Groves
76	Hydro		
760	Hydro	06-06-20	Jim Groves
761	Hydro	06-06-20	Jim Groves
762	Hydro	06-06-20	Jim Groves
763	Hydro	06-06-20	Jim Groves
764	Hydro	06-06-20	Jim Groves
765	Hydro	06-06-20	Jim Groves
766	Hydro	06-06-20	Jim Groves
767	Hydro	06-06-20	Jim Groves
768	Hydro	06-06-20	Jim Groves
769	Hydro	06-06-20	Jim Groves
77	Hydro		
770	Hydro	06-06-20	Jim Groves
771	Hydro	06-06-20	Jim Groves
772	Hydro	06-06-20	Jim Groves
773	Hydro	06-06-20	Jim Groves
775	Hydro	06-06-20	Jim Groves
776	Hydro	06-06-20	Jim Groves
777	Hydro	06-06-20	Jim Groves
779	Hydro	06-06-20	Jim Groves
78	Hydro		
780	Hydro	06-06-20	Jim Groves
781	Hydro	06-06-20	Jim Groves

---

782	Hydro	06-06-20	Jim Groves
783	Hydro	06-06-20	Jim Groves
784	Hydro	06-06-20	Jim Groves
785	Hydro	06-06-20	Jim Groves
786	Hydro	06-06-20	Jim Groves
787	Hydro	06-06-20	Jim Groves
788	Hydro	06-06-20	Jim Groves
789	Hydro	06-06-20	Jim Groves
79	Hydro		
790	Hydro	06-06-20	Jim Groves
791	Hydro	06-06-20	Jim Groves
792	Hydro	06-06-20	Jim Groves
793	Hydro	06-06-20	Jim Groves
794	Hydro	06-06-20	Jim Groves
795	Hydro	06-06-20	Jim Groves
796	Hydro	06-06-21	Jim Groves
797	Hydro	06-06-21	Jim Groves
798	Hydro	06-06-21	Jim Groves
799	Hydro	06-06-21	Jim Groves
8	Hydro		fair condition
800	Hydro	06-06-21	Jim Groves
801	Hydro	06-06-21	Jim Groves
802	Hydro	06-06-21	Jim Groves
803	Hydro	06-06-21	Jim Groves
804	Hydro	06-06-21	Jim Groves
805	Hydro	06-06-21	Jim Groves
806	Hydro	06-06-21	Jim Groves
807	Hydro	06-06-21	Jim Groves
808	Hydro	06-06-21	Jim Groves

---

809	Hydro	06-06-21	Jim Groves
81	Hydro/Cogeco		
810	Hydro	06-06-21	Jim Groves
811	Hydro	06-06-21	Jim Groves
812	Hydro	06-06-21	Jim Groves
813	Hydro	06-06-21	Jim Groves
814	Hydro	06-06-21	Jim Groves
815	Hydro	06-06-21	Jim Groves
816	Hydro	06-06-21	Jim Groves
817	Hydro	06-06-21	Jim Groves
818	Hydro	06-06-21	Jim Groves
819	Hydro	06-06-21	Jim Groves
82	Hydro		
820	Hydro	06-06-21	Jim Groves
821	Hydro	06-06-21	Jim Groves
822	Hydro	06-06-21	Jim Groves
823	Hydro	06-06-21	Jim Groves
824	Hydro	06-06-21	Jim Groves
825	Hydro	06-06-21	Jim Groves
826	Hydro	06-06-21	Jim Groves
827	Hydro	06-06-21	Jim Groves
828	Hydro	06-06-21	Jim Groves
83	Hydro		
830	Hydro	06-06-21	Jim Groves
831	Hydro	06-06-21	Jim Groves
832	Hydro	06-06-21	Jim Groves
833	Hydro	06-06-21	Jim Groves
834	Hydro	06-06-21	Jim Groves
835	Hydro	06-06-21	Jim Groves

---

---

836	Hydro	06-06-21	Jim Groves
837	Hydro	06-06-21	Jim Groves
838	Hydro	06-06-21	Jim Groves
839	Hydro	06-06-21	Jim Groves
84	Hydro		
840	Hydro	06-06-21	Jim Groves
841	Hydro	06-06-21	Jim Groves
842	Hydro	06-06-21	Jim Groves
843	Hydro	06-06-21	Jim Groves
844	Hydro	06-06-21	Jim Groves
845	Hydro	06-06-21	Jim Groves
846	Hydro	06-06-21	Jim Groves
848	Hydro	06-06-21	Jim Groves
848	Hydro	06-06-21	Jim Groves
849	Hydro	06-06-21	Jim Groves
85	Hydro		
850	Hydro	06-06-21	Jim Groves
851	Hydro	06-06-21	Jim Groves
852	Hydro	06-06-21	Jim Groves
853	Hydro	06-06-21	Jim Groves
854	Hydro	06-06-21	Jim Groves
855	Hydro	06-06-21	Jim Groves
856	Hydro	06-06-21	Jim Groves
857	Hydro	06-06-21	Jim Groves
858	Hydro	06-06-21	Jim Groves
859	Hydro	06-06-21	Jim Groves
86	Hydro		
86	Hydro	06-06-22	Jim Groves
862	Hydro	06-06-22	Jim Groves

---

---

863	Hydro	06-06-22	Jim Groves
864	Hydro	06-06-22	Jim Groves
865	Hydro	06-06-22	Jim Groves
866	Hydro	06-06-22	Jim Groves
867	Hydro	06-06-22	Jim Groves
868	Hydro	06-06-22	Jim Groves
869	Hydro	06-06-22	Jim Groves
87	Hydro		
870	Hydro	06-06-22	Jim Groves
871	Hydro	06-06-22	Jim Groves
872	Hydro	06-06-22	Jim Groves
873	Hydro	06-06-22	Jim Groves
874	Hydro	06-06-22	Jim Groves
875	Hydro	06-06-22	Jim Groves
876	Hydro	06-06-22	Jim Groves
877	Hydro	06-06-22	Jim Groves
878	Hydro	06-06-22	Jim Groves
879	Hydro	06-06-22	Jim Groves
88	Hydro		
880	Hydro	06-06-22	Jim Groves
881	Hydro	06-06-22	Jim Groves
882	Hydro	06-06-22	Jim Groves
883	Hydro	06-06-22	Jim Groves
884	Hydro	06-06-22	Jim Groves
885	Hydro	06-06-22	Jim Groves
886	Hydro	06-06-22	Jim Groves
887	Hydro	06-06-22	Jim Groves
888	Hydro	06-06-22	Jim Groves
889	Hydro	06-06-22	Jim Groves

---

890	Hydro	06-06-22	Jim Groves
891	Hydro	06-06-22	Jim Groves
893	Hydro	06-06-22	Jim Groves
894	Hydro	06-06-22	Jim Groves
895	Hydro	06-06-22	Jim Groves
896	Hydro	06-06-22	Jim Groves
897	Hydro	06-06-22	Jim Groves
898	Hydro	06-06-22	Jim Groves
898	Hydro	06-06-26	Rob Robilliard
899	Hydro	06-06-22	Jim Groves
9	Hydro		fair condition
90	Hydro		
900	Hydro	06-06-22	Jim Groves
901	Hydro	06-06-22	Jim Groves
902	Hydro	06-06-22	Jim Groves
903	Hydro	06-06-22	Jim Groves
904	Hydro	06-06-22	Jim Groves
905	Hydro	06-06-22	Jim Groves
906	Hydro	06-06-22	Jim Groves
907	Hydro	06-06-22	Jim Groves
908	Hydro	06-06-22	Jim Groves
909	Hydro	06-06-22	Jim Groves
910	Hydro	06-06-22	Jim Groves
911	Hydro	06-06-22	Jim Groves
912	Hydro	06-06-22	Jim Groves
913	Hydro	06-06-22	Jim Groves
914	Hydro	06-06-22	Jim Groves
915	Hydro	06-06-22	Jim Groves
916	Hydro	06-06-22	Jim Groves

917	Hydro	06-06-22	Jim Groves	
918	Hydro	06-06-22	Jim Groves	
919	Hydro	06-06-22	Jim Groves	
92	Hydro			
920	Hydro	06-06-22	Jim Groves	
921	Hydro	06-06-22	Jim Groves	
922	Hydro	06-06-22	Jim Groves	
923	Hydro	06-06-22	Jim Groves	insulator broken off pole, resting on streetlight (120V)
923	Hydro	06-06-22	Jim Groves	
925	Hydro	06-06-22	Jim Groves	
926	Hydro	06-06-22	Jim Groves	
927	Hydro	06-06-22	Jim Groves	
928	Hydro	06-06-23	Jim Groves	
929	Hydro	06-06-22	Jim Groves	
93	Hydro			
930	Hydro	06-06-22	Jim Groves	
931	Hydro	06-06-23	Jim Groves	
933	Hydro	06-06-23	Jim Groves	
933	Hydro	06-06-23	Jim Groves	
934	Hydro	06-06-23	Jim Groves	
936	Hydro	06-06-23	Jim Groves	
937	Hydro	06-06-23	Jim Groves	
937	Hydro	06-06-23	Jim Groves	
938	Hydro	06-06-23	Jim Groves	
939	Hydro	06-06-23	Jim Groves	
94	Hydro			
941	Hydro	06-06-23	Jim Groves	
942	Hydro	06-06-23	Jim Groves	
943	Hydro	06-06-23	Jim Groves	

---

944	Hydro	06-06-23	Jim Groves
945	Hydro	06-06-23	Jim Groves
946	Hydro	06-06-23	Jim Groves
947	Hydro	06-06-26	Rob Robilliard
948	Hydro	06-06-26	Rob Robilliard
949	Hydro	06-06-26	Rob Robilliard
95	Hydro		
950	Hydro	06-06-26	Rob Robilliard
951	Hydro	06-06-26	Rob Robilliard
952	Hydro	06-06-26	Rob Robilliard
953	Hydro	06-06-26	Rob Robilliard
954	Hydro	06-06-26	Rob Robilliard
956	Hydro	06-06-26	Rob Robilliard
957	Hydro	06-06-26	Rob Robilliard
959	Hydro	06-06-26	Rob Robilliard
96	Hydro		
960	Hydro	06-06-26	Rob Robilliard
961	Hydro	06-06-26	Rob Robilliard
962	Hydro	06-06-26	Rob Robilliard
963	Hydro	06-06-26	Rob Robilliard
964	Hydro	06-06-26	Rob Robilliard
965	Hydro	06-06-26	Rob Robilliard
966	Hydro	06-06-26	Rob Robilliard
967	Hydro	06-06-26	Rob Robilliard
968	Hydro	06-06-26	Rob Robilliard
97	Hydro		
972	Hydro	06-06-26	Rob Robilliard
974	Hydro	06-06-26	Rob Robilliard
975	Hydro	06-06-26	Rob Robilliard

---

976	Hydro	06-06-26	Rob Robilliard
977	Hydro	06-06-26	Rob Robilliard
978	Hydro	06-06-26	Rob Robilliard
979	Hydro	06-06-26	Rob Robilliard
98	Hydro		
984	Hydro	06-06-26	Rob Robilliard
986	Hydro	06-06-26	Rob Robilliard
987	Hydro	06-06-26	Rob Robilliard
988	Hydro	06-06-26	Rob Robilliard
99	Hydro		
990	Hydro	06-06-26	Rob Robilliard
991	Hydro	06-06-26	Rob Robilliard
992	Hydro	06-06-26	Rob Robilliard
993	Hydro	06-06-26	Rob Robilliard
994	Hydro	06-06-26	Rob Robilliard
995	Hydro	06-06-26	Rob Robilliard
996	Hydro	06-06-26	Rob Robilliard
997	Hydro	06-06-26	Rob Robilliard
998	Hydro	06-06-26	Rob Robilliard
999	Hydro	06-06-26	Rob Robilliard
LUI-1	Hydro	06-05-29	Rob Robillard
LUI-2	Hydro	06-05-29	Rob Robillard

<b>Result</b>	<input type="text" value="Other"/>			
<b>Number</b>	<b>Owner</b>	<b>InstallationDate</b>	<b>Inspector</b>	<b>Comments</b>
143	Hydro			broken- stub beside it
1573	Hydro	06-07-21	Dwayne Northru	needs guy wires. residents have supported pole with rope.
1813	Hydro	06-07-31	Dwayne Northru	broken lashing on spun buss
1943	Hydro	06-08-08	Brandon Meado	broken duct on underground dip

2182	Hydro	06-08-16	Jim Groves	broken
245	Hydro	06-05-29		woodpecker hole Rob Robilliard
485	Hydro	06-06-13	Jim Groves	hollow
486	Hydro	06-06-12	Jim Groves	broken conduit
494	Hydro	06-06-12	Jim Groves	hollow
495	Hydro	06-06-12	Jim Groves	hollow
507	Hydro	06-06-12	Jim Groves	hollow
511	Hydro	06-06-12	Jim Groves	hollow

<b>Result</b>				
	Rotten			
<b>Number</b>	<b>Owner</b>	<b>InspectionDate</b>	<b>Inspector</b>	<b>Comments</b>
1054	Hydro	06-06-27	Rob Robilliard	
1056	Hydro	06-06-27	Rob Robilliard	
1057	Hydro	06-06-27	Rob Robilliard	
1078	Hydro	06-06-28	Steve Jackson	
1079	Hydro	06-06-28	Steve Jackson	
1080	Hydro	06-06-28	Steve Jackson	
1081	Hydro	06-06-28	Steve Jackson	leaning
1082	Hydro	06-06-28	Steve Jackson	
1083	Hydro	06-06-28	Steve Jackson	
1084	Hydro	06-06-28	Steve Jackson	
1085	Hydro	06-06-28	Steve Jackson	
1086	Hydro	06-06-28	Steve Jackson	leaning
1087	Hydro	06-06-28	Steve Jackson	
1088	Hydro	06-06-28	Steve Jackson	
1089	Hydro	06-06-28	Steve Jackson	
1090	Hydro	06-06-28	Steve Jackson	
1091	Hydro	06-06-28	Steve Jackson	
1092	Hydro	06-06-28	Steve Jackson	
1093	Hydro	06-06-28	Steve Jackson	

1094	Hydro	06-06-28	Steve Jackson	
1096	Hydro	06-06-28	Steve Jackson	
1097	Hydro	06-06-28	Steve Jackson	
1160	Hydro	06-06-29	Rob Robilliard	
1163	Hydro	06-06-29	Rob Robilliard	
1203	Hydro	06-06-29	Rob Robilliard	
1206	Hydro	06-06-29	Rob Robilliard	split, bad top, leaning
1208	Hydro	06-06-29	Rob Robilliard	
1209	Hydro	06-06-29	Rob Robilliard	
1210	Hydro	06-06-29	Rob Robilliard	
1215	Hydro	06-06-30	Rob Robilliard	
1220	Hydro	06-07-04	Rob Robilliard	
1222	Hydro	06-07-04	Rob Robilliard	
1223	Hydro	06-07-04	Rob Robilliard	
1240	Hydro	06-07-04	Rob Robilliard	rotten on top, split, and leaning
1269	Hydro	06-07-05	Steve Jackson	
1288	Hydro	06-07-06	Brandon Meado	
129	Hydro			
1290	Hydro	06-07-06	Brandon Meado	
130	Hydro			
1301	Hydro	06-07-06	Brandon Meado	leaning
131	Hydro			
134	Hydro			
141	Hydro			broken crossarm
145	Hydro			
151	Hydro			
160	Hydro			
1685	Hydro	06-07-26	Steve Jackson	
1694	Hydro	06-07-26	Steve Jackson	

1836	Hydro	06-08-01	Dwayne Northru
1837	Hydro	06-08-01	Dwayne Northru
19	Hydro		
2	Hydro		
2116	Hydro	06-08-15	Steve Jackson
2140	Hydro	06-08-16	Jim Groves
2141	Hydro	06-08-16	Jim Groves
2144	Hydro	06-08-16	Jim Groves
2146	Hydro	06-08-16	Jim Groves
2148	Hydro	06-08-16	Jim Groves
2150	Hydro	06-08-16	Jim Groves
2152	Hydro	06-08-16	Jim Groves
220	Hydro	06-05-29	Rob Robillard
226	Hydro	06-05-29	Rob Robillard
227	Hydro	06-05-29	split Rob Robillard
229	Hydro	06-05-29	ant infested Rob Robillard
247	Hydro	06-05-29	rotten at ground level Rob Robillard
27	Hydro		
273	Hydro	06-05-30	Rob Robilliard
295	Hydro	06-06-02	Rob Robilliard
3	Hydro		split and rotten
35	Hydro	06-07-04	Rob Robilliard
4	Hydro		top of pole deteriorating
484	Hydro	06-06-13	Jim Groves
493	Hydro	06-06-12	Jim Groves
535	Hydro	06-06-12	Jim Groves
548	Hydro	06-06-13	Jim Groves
585	Hydro	06-06-13	Jim Groves

60	Hydro		
62	Hydro		
670	Hydro	06-06-19	Jim Groves
673	Hydro	06-06-19	Jim Groves
752	Hydro	06-06-20	Jim Groves
778	Hydro	06-06-20	Jim Groves
79	Hydro		
829	Hydro	06-06-21	Jim Groves
860	Hydro	06-06-21	Jim Groves
89	Hydro		
969	Hydro	06-06-26	Rob Robilliard rotten and leaning
970	Hydro	06-06-26	Rob Robilliard rotten and leaning
980	Hydro	06-06-26	Rob Robilliard URGENT
981	Hydro	06-06-26	Rob Robilliard
982	Hydro	06-06-26	Rob Robilliard
983	Hydro	06-06-26	Rob Robilliard

<b>Result</b>		<input type="text" value="Split"/>			
<b>Number</b>	<b>Owner</b>	<b>StationDate</b>	<b>Inspector</b>	<b>Comments</b>	
1075	Hydro	06-06-27	Rob Robilliard		
108	Hydro				
1156	Hydro	06-06-29	Rob Robilliard	leaning	
1157	Hydro	06-06-29	Rob Robilliard	ant infested	
1159	Hydro	06-06-29	Rob Robilliard		
1166	Hydro	06-06-29	Rob Robilliard		
1167	Hydro	06-06-29	Rob Robilliard		
1169	Hydro	06-06-29	Rob Robilliard		
1173	Hydro	06-06-29	Rob Robilliard		
1174	Hydro	06-06-29	Rob Robilliard	rotten	
1175	Hydro	06-06-29	Rob Robilliard		

1216	Hydro	06-06-30	Rob Robilliard	
1217	Hydro	06-06-30	Rob Robilliard	
1218	Hydro	06-06-30	Rob Robilliard	
1221	Hydro	06-07-04	Rob Robilliard	
1224	Hydro	06-07-04	Rob Robilliard	bad top
132	Hydro			
1575	Hydro	06-07-21	Dwayne Northru	
179	Hydro			
225	Hydro	06-05-29		Rob Robillard
244	Hydro	06-05-29		Rob Robillard
258	Hydro	06-05-30		Rob Robillard
260	Hydro	06-05-30	Rob Robilliard	
263	Hydro	06-05-30	Rob Robilliard	
266	Hydro	06-05-30	Rob Robilliard	
269	Hydro	06-05-30	Rob Robilliard	
272	Hydro	06-05-30	Rob Robilliard	
282	Hydro	06-05-30	Rob Robilliard	
283	Hydro	06-05-30	Rob Robilliard	
286	Hydro	06-05-30	Rob Robilliard	
287	Hydro	06-05-30	Rob Robilliard	
293	Hydro	06-05-30	Rob Robilliard	
303	Hydro	06-06-02	Rob Robilliard	
307	Hydro	06-06-02	Rob Robilliard	
598	Hydro	06-06-26	Rob Robilliard	
737	Hydro	06-06-20	Jim Groves	
774	Hydro	06-06-20	Jim Groves	
971	Hydro	06-06-26	Rob Robilliard	woodpecker holes
985	Hydro	06-06-26	Rob Robilliard	

**Ministry of Energy**

880 Bay Street  
3rd Floor  
Toronto ON M7A 2C1

Tel: (416) 325-6544  
Fax: (416) 325-7041

**Ministère de l'Énergie**

880, rue Bay  
3<sup>e</sup> étage  
Toronto ON M7A 2C1

Tél: (416) 325-6544  
Télééc.: (416) 314-7041



**Office of Consumer & Regulatory Affairs**

December 21, 2007

Mr. Bernie Watts  
Chief Executive Officer  
London Hydro Inc.  
111 Horton Street  
P.O. Box 3060  
London, ON, N6A 4J8

Dear Mr. Watts,

A handwritten signature in cursive script that reads "Bernie".

I understand that London Hydro and a consortium of more than 20 additional local distribution companies (LDCs) are currently working diligently considering bids received from the now closed smart meter RFP. I want to personally congratulate London Hydro and consortium members on the hard work and collaboration that has resulted in a process that strives to ensure economies of scale, cost-effectiveness, and best value for customers. We are eager to see the results from this process to establish a second round of smart meter procurement in the province.

In our letter to London Hydro on July 25, 2007, the government reiterated its view that, wherever possible, individual procurements of the same product should be combined to capture any economic benefits from a common statement of work. This was also communicated in subsequent discussions between Ministry staff and London Hydro regarding the consideration of options for allowing LDCs outside of the consortium to participate in the procurement process.

As you are no doubt well aware, this procurement has attracted attention from LDCs across the province and several have expressed an interest in participating. I am appreciative of the work done by London Hydro to develop a participation process that offers non-consortium LDCs with an opportunity to investigate a suitable technology for their own customers. I understand that the participation guidelines ensure that the integrity of the procurement process (which will be monitored by London Hydro's fairness commissioner) will be maintained in the event of expanded LDC participation. The participation process also provides opportunities for both consortium and other LDCs to achieve greater cost-savings and volumetric discounts in those cases where the same bidder's technology is selected.

Following the successful completion of the RFP and Minister Phillips' approval, the Ministry will recommend to Cabinet an amendment to O. Reg. 427/06 to accommodate London Hydro and consortium members as well as any other LDCs outside the consortium that have chosen to participate in the process. As you know, the Ministry cannot bind Cabinet's decision making. As such, nothing in this letter shall be construed as obligating the Cabinet or the legislature of the Province of Ontario to approve or promulgate the proposed amending regulation.

Please accept my congratulations on your accomplishments to date on this initiative. I encourage you to continue the dedication you have shown thus far toward the successful implementation of smart metering for your customers.

Sincerely,

A handwritten signature in black ink that reads "Rosalyn Lawrence". The signature is written in a cursive style with a long, sweeping underline.

Rosalyn Lawrence  
Assistant Deputy Minister  
Consumer and Regulatory Affairs

cc:

Electricity Distributors Association

Niagara Erie Power Alliance

Cornerstone Hydro Electric Concepts Group

District 9

Whitby Hydro

## APPENDIX VIII

### Lakefront Utility's Code of Business Conduct

#### The Role of the Code of Business Conduct

This Code of Business Conduct sets forth the basic principles of business conduct Lakefront Utility expects its employees, officers and directors to follow. It is expected that we will at all times exercise honesty and integrity in our duties, and live up to our commitments to society and our stakeholders. Our stakeholders include our customers and other business partners, our employees, the communities in which we operate, and our shareholder, the Corporation of the Town of Cobourg and the Village of Colborne.

This Code outlines general principles of appropriate business conduct rather than attempting to cover every situation we may possibly encounter. The Code is designed to alert Lakefront Utility employees, officers, directors, consultants, suppliers and contractors to major legal and ethical issues that frequently arise. It also serves to establish appropriate channels for obtaining guidance and reporting Code violations.

In this Code, "Lakefront Utility" means Lakefront Utilities Inc. and related corporations.

#### Ethical Decision Making

One of the primary goals of this Code is to help all of us make ethical business decisions. The Code establishes principles to govern conduct in some general areas that pose ethical or legal concerns. No book of hard-and-fast rules, however long and detailed, could ever adequately cover all the dilemmas we face given the complexity and constantly changing nature of our work and our world.

*Therefore, we may find it helpful to ask the following questions before taking action in specific situations:*

- ▶ Am I adhering to the letter and spirit of the laws and regulations that may be involved?
- ▶ Is my action consistent with the overall values set forth in the Code?
- ▶ Would my action compromise my integrity or credibility, or that of Lakefront Utility?
- ▶ Does my action conform to Lakefront Utility's company policies?
- ▶ How would my actions appear to my supervisors, peers, subordinates, family, close personal friends, or to the public if reported in the news media?
- ▶ Does it make me feel uncomfortable?

Ultimately, employees are personally responsible for their decisions and should discuss ethical concerns, issues and questions with their supervisor or other contacts referred to under "Where to Get Assistance" below.

#### Our Commitments to Society

We believe that we have responsibilities to society because ultimately it is only with its implicit permission that the economy in which we participate is allowed to flourish. We therefore make the following commitments to society.

## **Obey the Law**

We act in accordance with both the letter and the spirit of all laws and regulations applicable to the conduct of our business wherever we operate. To achieve this, Lakefront Utility provides us with the training required to obtain an understanding of the laws which apply to the carrying out of our responsibilities. With this training, we are expected to be sufficiently familiar, and act in accordance, with any laws that apply to our work, to recognize potential liabilities, and to know when to seek legal advice. If in doubt, we promptly seek clarification from Lakefront Utility's General Counsel.

We never commit or condone an illegal or improper act relating to Lakefront Utility's affairs, or instruct another employee, business partner or contractor to do so.

We acknowledge the importance to Lakefront Utility of complying with the Affiliate Relationships Code. We comply with, and ensure that all parties who provide services on behalf of Lakefront Utility comply with, the Affiliate Relationships Code.

We do not offer or make any payment (in money, property, services or any other form) directly or indirectly through an agent or consultant, to any government official, political party, political party official, or candidate for political office for the purpose of persuading that person to exert influence in order to assist Lakefront Utility in obtaining or retaining business. We take measures reasonably within our power to ensure that any payment made to an agent is appropriate remuneration for legitimate services rendered and that no part is passed on by the agent as a bribe. We ensure that proper systems of control are in place to prevent and detect the payment of bribes.

We never request any payment (in money, property, services or any other form), directly or indirectly, to influence a decision or otherwise, nor do we accept any offered payment for any purpose other than as permitted in strict compliance with this Code.

We avoid all actions that are anti-competitive or otherwise contrary to laws that govern competitive practices in the marketplace.

We do not engage in, or give the appearance of being engaged in, any illegal or improper conduct that is in violation of this Code.

## **Confidentiality**

We do not use for personal advantage any information that is obtained in the course of our employment and is not available to the public at large.

Examples of such information include:

- a. information concerning a proposed or existing business transaction with Lakefront Utility;
- b. the proposed acquisition or disposal of investments or other assets; and
- c. the pending award or change of contract for the supply of materials, goods or services to Lakefront Utility.

We do not inform anyone of any material fact or change relating to Lakefront Utility before it has been generally disclosed by Lakefront Utility in accordance with its disclosure policy except as may be required in the ordinary course of business. If it is necessary to inform any persons in the ordinary course of business, we ensure that the recipients of the information understand that it must be kept confidential. Where such recipients are from outside of Lakefront Utility we request, where appropriate, that they confirm their commitment to non-disclosure in the form of a written confidentiality agreement.

### **Our Commitments To Our Stakeholders**

Maintaining the trust and confidence of our stakeholders is crucial to Lakefront Utility's economic well-being. If such trust and confidence is lost, we will lose their support and the valuable contribution which each makes to Lakefront Utility's success. It is in recognition of this that we make the following commitments to our stakeholders.

#### ***TO ALL OF OUR STAKEHOLDERS- We are committed to protecting their interest in Lakefront Utility's economic well-being***

We acknowledge that all stakeholders have an interest in Lakefront Utility's economic well-being to provide employment opportunities, purchase goods and services, contribute to economic partnerships, contribute to the quality of life in communities where we operate, and to enhance the value of our shareholder's investment. To protect these interests, we will act in accordance with the following standards.

### **Protect Lakefront Utility's Assets**

Each of us has a responsibility to safeguard Lakefront Utility's assets.

#### ***With respect to corporate funds we will:***

- a. Exercise integrity, prudence and judgment in incurring and approving business expenses.
- b. Ensure that business expenses are reasonable and serve Lakefront Utility's business interests.
- c. Ensure that all transactions and expenses are properly authorized.
- d. Record all transactions and expenses accurately, completely and promptly.
- e. Ensure that the acquisition, use, disposal or movement of funds is made known, clearly identified, and not diverted for any other use than that for which they were approved.
- f. Not conceal any fund or transaction from finance, management or Lakefront Utility's auditors.
- g. Not enter into any transaction for the purpose of unlawfully evading any tax, duty or other levy imposed by a government, either for ourselves or for our counterparties.

***With respect to physical assets (including corporate property involved in carrying out duties) we will:***

- a. Use these assets prudently and with due care.
- b. Exercise reasonable safeguards to protect them against theft, damage, loss and waste.
- c. Ensure that the acquisition, use, disposal or movement of assets is made known, clearly identified, and not diverted for any other use than that for which they were approved.
- d. Not take, sell, loan, destroy or give away assets without proper authorization.

***With respect to information we will:***

- a. Treat any information that has not been publicly disclosed in accordance with Lakefront Utility's disclosure policy as confidential.
- b. Take precautions to avoid inadvertent disclosure, for instance, by not discussing such information in public and using extra care in transmitting such information by fax or electronic mail.
- c. Enter into confidentiality agreements to ensure those to whom we must disclose such information will not disclose it to others.
- d. Not release information to the media without proper authorization.
- e. Use only properly licensed computer software.
- f. Not reproduce, distribute or alter materials such as computer software or videotapes without the permission of the copyright owner or authorized agent but instead obtain additional copies of needed materials by purchasing them through the appropriate channels.
- g. Employ ethical means in conducting research by being honest in obtaining, interpreting, using and disclosing data.
- h. Use Lakefront Utility information --brand names, logos, trademarks -- only in an authorized manner and in accordance with all laws.
- i. Comply with internal policies, procedures and guidelines relating to internal computer systems. We acknowledge that Lakefront Utility reserves the broadest possible rights to ensure that Lakefront Utility's computer data base and all electronic communications systems, including electronic mail ("e-mail"), voice mail, the intranet and internet, and electronically created or stored data are used in compliance with internal policies, procedures and guidelines that guide the use, storage and transmission of information through this medium.

***With respect to business records and reports generally we will:***

- a. Ensure honest and accurate recording, reporting and retention of information (including all business records, including financial reports, research reports, marketing information, sales reports, tax refunds, time sheets, claims and other documents including those submitted to governmental agencies) since almost all business records may become subject to public disclosure in the course of litigation or governmental investigations and records are also often obtained by outside parties or the media.
- b. Ensure that all records and accounts accurately and truthfully reflect transactions

and events, and conform both to generally accepted accounting principles and to the Lakefront Utility system of internal controls.

- c. Ensure that no entry is made in any record that intentionally hides or disguises the true nature of any transaction.
- d. Never withhold, or fail to communicate, information that should be brought to the attention of higher levels of management.
- e. Attempt to be as clear, concise, truthful and accurate as possible when recording any information and avoid exaggeration, inappropriate language, guesswork, legal conclusions, and derogatory characterizations of people and their motives.
- f. Not destroy or condone the destruction of records, except in accordance with internal document management, retention and disposition policies.

### **Avoid Conflicts of Interest**

A "**conflict of interest**" occurs when our direct or indirect personal interests, activities or influences could compromise, or could reasonably appear to compromise, our ability to perform our responsibilities objectively and in the best interests of Lakefront Utility. Conflicts of interest, no matter how innocent the intention, threaten Lakefront Utility's economic interests (including its reputation) by potentially leading us to make decisions based on personal interests rather than in the best interests of Lakefront Utility. Even if we do not allow our personal interests to influence our decisions, the existence of the conflict will jeopardize the trust of our stakeholders if they perceive that we may not be acting solely with Lakefront Utility's best interests in mind. We must therefore exercise common sense, sound judgment and moral integrity to avoid any conflict of interest. We must also make any situation that might constitute a potential conflict of interest known to management and seek approval to proceed in accordance with this Code.

We are to seek guidance from our supervisors, or otherwise in accordance with this Code, whenever there is a question concerning a possible conflict of interest between our personal interest and the interests of Lakefront Utility. Conflicts include any activity (even when it is unpaid), interest or association that might compromise, or appear to compromise, the independent exercise of our judgment in the best interests of the Company.

Our responsibility to avoid conflicts of interest means that we must always act in the best interests of Lakefront Utility.

#### ***With respect to outside business interests we will not, without approval:***

- a. Operate, serve as directors, officers, or partners of, or perform work or services as employees, consultants or advisors for, any competitor or any actual or potential "business partner" (including suppliers and customers) or any other entity that could lead to a conflict of interest or situation prejudicial to Lakefront Utility's interests (including any situation where our performance of duties for Lakefront Utility is adversely affected).

- b. Use Lakefront Utility time or resources (including equipment, tools, materials, supplies, facilities, personnel and information) to run our own business or engage in work for another organization, or to further the private interests of our family members, close personal friends or associates.
- c. Take part in a Lakefront Utility corporate decision which might confer any benefit, monetary or otherwise, on a business partner or competitor of Lakefront Utility in which we, our family members, close personal friends or associates hold a direct or indirect business or ownership interest.
- d. Take part in outside employment which creates the appearance of a, or an actual, conflict of interest.
- e. While performing duties as a Lakefront Utility representative, solicit customers for any outside employment. We will not recommend or refer customers to businesses, including those businesses operated by ourselves or other Lakefront Utility employees. For the purpose of interpretation, "solicit" includes any inquiry or request made by a customer for an employee's "off-duty" services.

***With respect to property transactions we will not:***

- a. Use our position at Lakefront Utility to influence any corporate decision involving real estate or personal property in which we, our family members, close personal friends or associates have a direct or indirect business or ownership interest. For example, we will not participate in a decision concerning the location of a Lakefront Utility facility that would directly or indirectly benefit lands owned by any such individuals.
- b. Deal knowingly in real estate for the direct or indirect personal gain of ourselves, family members, close personal friends or associates, based on knowledge of any proposed or pending Lakefront Utility transaction such as the proposed location of a transmission line or other facility.
- c. Influence the settlement of a claim against Lakefront Utility to the advantage of a private interest held by us, our family members, close personal friends or associates.

***With respect to political activity we acknowledge that:***

Each of us has the right to participate in the political process and to engage in political activities of our own choosing. However, while involved in such political activities we must at all times make clear that any views and actions are our own, and not those of Lakefront Utility. As in other activities, we must consider whether our political activity could adversely affect our performance of duties for Lakefront Utility or conflict with Lakefront Utility's responsibilities and, if so, avoid those activities. To determine if the political activity may create a potential conflict, we may contact the President, who will review the case and inform us of any action considered necessary to avoid the conflict.

***With respect to gifts, gratuities, entertainment or benefits offered to us, our family members, close personal friends or associates (or to a third party receiving benefits for us or them) for less than full market value we will conduct ourselves as follows:***

We will only accept gifts, entertainment and benefits in the normal exchanges common

to business relationships. The following criteria will guide our judgment:

- a. the gift, entertainment or benefit would be considered to be within the bounds of propriety taking into account all the circumstances of the occasion;
- b. it does not, nor is it expected to, create a sense of obligation;
- c. it would not appear to improperly influence a business decision or result in compromising objectivity;
- d. it occurs infrequently; and
- e. it could be justified on a Lakefront Utility expense statement if offered rather than received.

We will return inappropriate gifts or other benefits to the donor, accompanied by an explanation of Lakefront Utility's policy on this matter or, if considered appropriate, a copy of this Code. Perishable gifts can instead be donated to a charity and the donor notified. We will promptly advise our President of the circumstances of an inappropriate gift.

In some business settings, the return of a gift or refusal of a favour, benefit or entertainment would be offensive; in these cases, we should refer the circumstances to the President for guidance.

Full and immediate disclosure in accordance with this Code of borderline cases will always be taken as good faith compliance with this Code.

***TO OUR CUSTOMERS AND OTHER BUSINESS PARTNERS - We are committed to being fair and honest***

To fulfill this commitment we:

- a. Treat our business partners courteously, respectfully and in a professional and helpful manner.
- b. Commit only to what we honestly believe we can deliver.
- c. Honour the commitments we make.
- d. Protect any information shared with us on a confidential basis by a business partner.
- e. Do not release customer information to any third party without proper authorization from the customer or Lakefront Utility management.
- f. Do not attempt to improperly influence the decisions of existing or potential business partners or attempt to secure preferential treatment for Lakefront Utility by offering gifts, entertainment or benefits which we ourselves would not be able to accept.
- g. Do not use our position at Lakefront Utility to obtain personal favours or special consideration for ourselves, our family members, close personal friends or associates.
- h. Select our suppliers objectively, based on the long-term best interests of Lakefront Utility.

***TO OUR EMPLOYEES - We are committed to treating all employees with dignity and respect***

To fulfill this commitment we create a safe and healthy work environment where employees have opportunities for professional development, are treated with dignity and respect and are recognized for their contributions to Lakefront Utility and its customers.

***TO THE COMMUNITIES WHERE WE OPERATE - We are committed to protecting the environment and enhancing the quality of life***

To fulfill this commitment we will act in accordance with the following standards:

***Protect the Environment***

We acknowledge that environmental protection is one of Lakefront Utility's fundamental values and to demonstrate such value we will:

- a. Ensure that we understand the environmental impact of our activities and treat it as an integral factor in all of our decisions.
- b. Report immediately any environment mishaps.
- c. Be open about and accountable for our environmental performance.
- d. Strive to find business partners which conduct their business in an environmentally responsible manner.

***Enhance the Quality of Life***

We believe that a fundamental responsibility is to conduct our business on a sound commercial basis in a socially responsible manner. This is, we believe, the greatest contribution we can make to the communities where we operate. We also believe we have a responsibility to contribute to the well-being of these communities in other ways. While this commitment will take different forms in different communities, we will:

- a. Support health, education and environmental initiatives.
- b. Support and work with voluntary and charitable organizations that respond to community needs.
- c. Get involved in and work with the community to solve community problems.
- d. Encourage our employees to contribute to their communities through involvement with charitable, community service and professional organizations. However, employees must consider whether their activities could pose a conflict of interest or adversely affect their performance of duties for Lakefront Utility, and should only use Lakefront Utility time or resources for such activities with the prior approval of management.
- e. Encourage, support and seek partnerships with organizations which need our help, whether they be schools or social service organizations.
- f. Involve local communities in decision making for issues that affect them.

***TO OUR SHAREHOLDER- We are committed to enhancing value for our shareholder, the Corporation of the Town of Cobourg and the Village of Colborne.***

All of our ethical commitments are directed at protecting Lakefront Utility's well-being.

Through these commitments, we will seek to enhance the value of our shareholder's investment.

## **Code Administration**

### **Where to Get Assistance**

Never hesitate to ask a question or raise a concern about conduct that may violate Lakefront Utility's standards or the law. If you have a question about this Code or require guidance in making a more informed decision, you are encouraged to seek assistance by contacting your supervisor, who may have the information you need, who may in turn seek assistance from other departments of Lakefront Utility with experience concerning the issue raised. If this approach is uncomfortable or seems inappropriate, or you would otherwise prefer, you may contact the appropriate Lakefront Utility department.

Regardless of the approach used, the person or office contacted will handle your request promptly, discreetly and professionally. Discussions and inquiries will be strictly confidential to the fullest extent possible or permitted by policy or law.

### **Reporting Violations and Retaliation**

All Lakefront Utility employees, officers and directors must adhere to and actively support the principles and standards described in this Code, and adhere to the standards set out in applicable policies, guidelines and legislation.

Violations of the Code will not be tolerated. Any employee who fails to comply with the Code, or who withholds information during the course of an investigation regarding a possible violation of the Code, is subject to disciplinary action up to and including dismissal. Depending on the nature of the non-compliance, Lakefront Utility may have legal obligation to report the non-compliance to the appropriate authorities, which may lead to criminal prosecution or civil action.

Any situation or transaction that may violate, or could appear to violate, the letter or intent of the Code must be reported immediately to your supervisor or if this is uncomfortable or seems inappropriate, must be reported immediately to the next level of your management; or if preferred, Lakefront Utility's President.

All issues raised with, and reported to, the President will be handled promptly, discreetly and professionally. The President shall have the discretion to determine how any reported matter will be handled. If the President determines it is necessary and appropriate in any circumstances the Officer may discuss the matter with, or refrain from discussing the matter with, the Chairman of the Board of Directors or any of the other directors or officers of Lakefront Utility. It is hoped that all callers will identify themselves when contacting the President since that will facilitate resolving any issues. However, we will respond to anonymous contacts.

All disclosures to the President will be kept strictly confidential to the fullest extent possible or permitted by policy or law unless, in the sole opinion of the President, the matter disclosed constitutes an actual or potential threat of harm to Lakefront Utility, its employees or the general public. In that event, the President will act in accordance with any disclosure procedure issued by Lakefront Utility's General Counsel.

Management is responsible for ensuring that no retaliatory action will be taken against anyone for making in good faith a report of an ethical or legal concern or violation. However, anyone who takes part in a prohibited activity may be disciplined even if they report it. An employee's decision to report will, in all cases, be given due consideration in the event any disciplinary action is necessary.

Any employee found to be retaliating against an individual who, in good faith, reports a known or suspected violation or supplies information about a concern will be subject to disciplinary action up to and including dismissal. Employees who knowingly submit false reports will also be subject to disciplinary action.

APPENDIX iX

Account Number: 2369553008

Type: LV

Colborne MS #2

Information we used to calculate your bill

Total KWH	438,359.07
Total KWH w Losses	453,263.28

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges				-	-
Shared LV Line	2006-10-24 19:00 EST	\$0.6300		943.46 KW non-adj	\$594.38
Sub-Total					\$594.38
<b>Total of all charges for this account</b>					<b>\$594.38</b>

Account Number: 2447889001

Type: LV

Colborne MS #1

Information we used to calculate your bill

Total KWH	1,008,524.87
Total KWH w Losses	1,042,814.71

*All meter quantities have been adjusted by authorized losses where applicable.*

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges				-	-
Shared LV Line	2006-11-01 18:00 EST	\$0.6300		2,048.51 KW non-adj	\$1,290.56
Sub-Total					\$1,290.56
<b>Total of all charges for this account</b>					<b>\$1,290.56</b>

Account Number: 2483097018

Type: LV

Port Hope TS M2 + M4

Information we used to calculate your bill

Total KWH	21,559,896.00
Total KWH w Losses	21,689,255.38

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<i>Delivery</i>					
Monthly Service Charges				-	-
Shared LV Line	2006-11-01 18:00 EST	\$0.6300		37,872.00 KW non-adj	\$23,859.36
Specific LV Line		524.0000		1.80 km	\$943.20
Sub-Total					\$24,802.56
<b>Total of all charges for this account</b>					<b>\$24,802.56</b>

\*\*\*\*\* THIS IS NOT AN INVOICE - PLEASE DO NOT PAY \*\*\*\*\*

Account Number: 2369553008

Type: LV

Colborne MS #2

Information we used to calculate your bill

Total KWH	379,234.81
Total KWH w Losses	392,128.79

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges				-	-
Shared LV Line	2006-10-02 19:00 EST	\$0.6300		741.37 KW non-adj	\$467.06
Sub-Total					\$467.06
<b>Total of all charges for this account</b>					<b>\$467.06</b>

Account Number: 2447889001

Type: LV

Colborne MS #1

Information we used to calculate your bill

Total KWH	904,593.73
Total KWH w Losses	935,349.92

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges				-	-
Shared LV Line	2006-09-25 19:00 EST	\$0.6300		1,728.71 KW non-adj	\$1,089.09
Sub-Total					\$1,089.09
<b>Total of all charges for this account</b>					<b>\$1,089.09</b>

Account Number: 2483097018

Type: LV

Port Hope TS M2 + M4

Information we used to calculate your bill

Total KWH	22,460,736.00
Total KWH w Losses	22,595,500.42

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges				-	-
Shared LV Line	2006-09-18 13:00 EST	\$0.6300		37,536.00 KW non-adj	\$23,647.68
Specific LV Line		524.0000		1.80 km	\$943.20
Sub-Total					\$24,590.88
<b>Total of all charges for this account</b>					<b>\$24,590.88</b>

\*\*\*\*\* THIS IS NOT AN INVOICE - PLEASE DO NOT PAY \*\*\*\*\*

Account Number: 2369553008

Type: LV

Colborne MS #2

Information we used to calculate your bill

Total KWH	380,471.31
Total KWH w Losses	393,407.33

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges				-	-
Shared LV Line	2006-08-04 13:00 EST	\$0.6300		822.08 KW non-adj	\$517.91
Sub-Total					\$517.91
<b>Total of all charges for this account</b>					<b>\$517.91</b>

Account Number: 2447889001

Type: LV

Colborne MS #1

Information we used to calculate your bill

Total KWH	795,426.99
Total KWH w Losses	822,471.51

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges				-	-
Shared LV Line	2006-08-22 13:00 EST	\$0.6300		1,642.30 KW non-adj	\$1,034.65
Sub-Total					\$1,034.65
<b>Total of all charges for this account</b>					<b>\$1,034.65</b>

Account Number: 2483097018

Type: LV

Port Hope TS M2 + M4

Information we used to calculate your bill

Total KWH	21,667,344.00
Total KWH w Losses	21,797,348.06

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges					-
Shared LV Line	2006-08-18 16:00 EST	\$0.6300		42,288.00 KW non-adj	\$26,641.44
Specific LV Line		524.0000		1.80 km	\$943.20
Sub-Total					\$27,584.64
<b>Total of all charges for this account</b>					<b>\$27,584.64</b>

\*\*\*\*\* THIS IS NOT AN INVOICE - PLEASE DO NOT PAY \*\*\*\*\*

Account Number: 2369553008

Type: LV

MS #2

Information we used to calculate your bill

of KWH	407,879.23
Total KWH w Losses	421,747.12

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges					
Shared LV Line	2006-06-28 17:00 EST	\$0.6300		816.47 KW non-adj	\$514.38
Sub-Total	4750.02.01.01				\$514.38
<b>Total of all charges for this account</b>					<b>\$514.38</b>

+ GST

Account Number: 2447889001

Type: LV

MS #1

Information we used to calculate your bill

Normal KWH	892,452.43
Total KWH w Losses	922,795.81

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges				-	-
Shared LV Line	2006-06-19 11:00 EST	\$0.6300		1,647.20 KW non-adj	\$1,037.74
Sub-Total	4750.02.01.01				\$1,037.74
<b>Total of all charges for this account</b>					<b>\$1,037.74</b>

+ GST

Account Number: 2483097018

Type: LV

TS M2 + M4

Information we used to calculate your bill

Total KWH	24,085,296.00
Total KWH w Losses	24,229,807.78

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges				-	-
Shared LV Line	2006-06-22 16:00 EST	\$0.6300		40,968.00 KW non-adj	\$25,809.84
Specific LV Line		524.0000		1.80 km	\$943.20
Sub-Total	4750.02.01.01				\$26,753.04
<b>Total of all charges for this account</b>					<b>\$26,753.04</b>

\*\*\*\*\* THIS IS NOT AN INVOICE - PLEASE DO NOT PAY \*\*\*\*\*

+ GST

Account Number: 2369553008

Type: LV

ne MS #2

Information we used to calculate your bill

Total KWH

360,516.06

Total KWH w Losses

372,773.61

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges				-	-
Shared LV Line	2006-05-31 17:00 EST	\$0.6300		799.03 KW non-adj	\$503.39
Sub-Total	2405.02.01.06				\$503.39
<b>Total of all charges for this account</b>					<b>\$503.39</b>

Account Number: 2447889001

Type: LV

me MS #1

Information we used to calculate your bill

Total KWH

803,873.86

Total KWH w Losses

831,205.57

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges				-	-
Shared LV Line	2006-05-08 10:00 EST	\$0.6300		1,627.57 KW non-adj	\$1,025.37
Sub-Total	2405.02, 01.06				\$1,025.37
<b>Total of all charges for this account</b>					<b>\$1,025.37</b>

Account Number: 2483097018

Type: LV

TS M2 + M4

ation we used to calculate your bill

KWH

21,540,288.00

otal KWH w Losses

21,669,529.73

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<i>Delivery</i>					
Monthly Service Charges				-	-
Shared LV Line	2006-05-30 16:00 EST	\$0.6300		42,984.00 KW non-adj	\$27,079.92
Specific LV Line		524.0000		1.80 km	\$943.20
Sub-Total	2405.02.01.06,				\$28,023.12
Total of all charges for this account					\$28,023.12

\*\*\*\*\* THIS IS NOT AN INVOICE - PLEASE DO NOT PAY \*\*\*\*\*

Account Number: 2369553008

Type: LV

MS #2

Information we used to calculate your bill

Total KWH

397,153.59

Total KWH w Losses

410,656.81

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges					-
Shared LV Line	2006-04-05 17:00 EST	\$0.6300	0.100000	837.89 KW non-adj	\$52.79
Shared LV Line	2006-04-05 17:00 EST	\$0.0000	0.900000	837.89 KW non-adj	-
Sub-Total					\$52.79
<b>Total of all charges for this account</b>					<b>\$52.79</b>

Account Number: 2447889001

Type: LV

ie MS #1

Information we used to calculate your bill

Total KWH	892,870.19
Total KWH w Losses	923,227.78

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges				-	-
Shared LV Line	2006-04-05 10:00 EST	\$0.6300	0.100000	1,872.86 KW non-adj	\$117.99
Shared LV Line	2006-04-05 10:00 EST	\$0.0000	0.900000	1,872.86 KW non-adj	-
Sub-Total					\$117.99
<b>Total of all charges for this account</b>					<b>\$117.99</b>

Account Number: 2483097018

Type: LV

Scope TS M2 + M4

Information we used to calculate your bill

Total KWH	22,218,960.00
Total KWH w Losses	22,352,273.76

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges				-	-
Shared LV Line	2006-04-05 16:00 EST	\$0.0000	0.900000	38,664.00 KW non-adj	-
Shared LV Line	2006-04-05 16:00 EST	\$0.6300	0.100000	38,664.00 KW non-adj	\$2,435.83
Specific LV Line		524.0000	0.100000	1.80 km	\$94.32
Specific LV Line		\$0.0000	0.900000	1.80 km	-
Sub-Total					\$2,530.15
Total of all charges for this account					\$2,530.15

\*\*\*\*\* THIS IS NOT AN INVOICE - PLEASE DO NOT PAY \*\*\*\*\*

Account Number: 0038202005

Type: LV

Port Hope TS M4

Information we used to calculate your bill

Total KWH	8,611,761.55
Total KWH w Losses	8,735,641.74

*All meter quantities have been adjusted by authorized losses where applicable.*

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges				-	-
Shared LV Line	2007-10-23 18:00 EST	\$0.6330		33,483.54 KW non-adj	\$21,195.08
Sub-Total					\$21,195.08
<b>Total of all charges for this account</b>					<b>\$21,195.08</b>

Account Number: 2369553008

Type: LV

iborne MS #2

Information we used to calculate your bill

Total KWH	420,479.93
Total KWH w Losses	434,776.25

*All meter quantities have been adjusted by authorized losses where applicable.*

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges					-
Shared LV Line	2007-10-29 19:00 EST	\$0.6330		934.17 KW non-adj	\$591.33
Sub-Total					\$591.33
<b>Total of all charges for this account</b>					<b>\$591.33</b>

Account Number: 2447889001

Type: LV

iborne MS #1

Information we used to calculate your bill

Total KWH	901,698.31
Total KWH w Losses	932,356.05

*All meter quantities have been adjusted by authorized losses where applicable.*

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges					-
Shared LV Line	2007-10-29 09:00 EST	\$0.6330		1,917.27 KW non-adj	\$1,213.63
Sub-Total					\$1,213.63
<b>Total of all charges for this account</b>					<b>\$1,213.63</b>

Account Number: 2483097018

Type: LV

Port Hope TS M2

Information we used to calculate your bill

Total KWH	11,693,461.01
Total KWH w Losses	11,863,171.04

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges					-
Shared LV Line	2007-10-29 09:00 EST	\$0.6330		21,175.44 KW non-adj	\$13,404.05
Sub-Total					\$13,404.05
<b>Total of all charges for this account</b>					<b>\$13,404.05</b>

\*\*\*\*\* THIS IS NOT AN INVOICE - PLEASE DO NOT PAY \*\*\*\*\*

Account Number: 0038202005

Type: LV

Port Hope TS M4

Information we used to calculate your bill

Total KWH	8,715,461.28
Total KWH w Losses	8,839,571.63

*All meter quantities have been adjusted by authorized losses where applicable.*

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<i>Delivery</i>					
Monthly Service Charges					-
Shared LV Line	2007-09-07 14:00 EST	\$0.6330		16,570.12 KW non-adj	\$10,488.88
Sub-Total					\$10,488.88
<b>Total of all charges for this account</b>					<b>\$10,488.88</b>

Account Number: 2369553008

Type: LV

Colborne MS #2

Information we used to calculate your bill

Total KWH	376,430.98
Total KWH w Losses	389,229.63

*All meter quantities have been adjusted by authorized losses where applicable.*

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges				-	-
Shared LV Line	2007-09-07 20:00 EST	\$0.6330		893.10 KW non-adj	\$565.33
Sub-Total					\$565.33
<b>Total of all charges for this account</b>					<b>\$565.33</b>

Account Number: 2447889001

Type: LV

Colborne MS #1

Information we used to calculate your bill

Total KWH	890,268.70
Total KWH w Losses	920,537.84

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges				-	-
Shared LV Line	2007-09-07 14:00 EST	\$0.6330		1,825.57 KW non-adj	\$1,155.59
Sub-Total					\$1,155.59
<b>Total of all charges for this account</b>					<b>\$1,155.59</b>

Account Number: 2483097018

Type: LV

Port Hope TS M2

Information we used to calculate your bill

Total KWH	12,541,430.95
Total KWH w Losses	12,723,532.69

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges				-	-
Shared LV Line	2007-09-07 15:00 EST	\$0.6330		25,875.26 KW non-adj	\$16,379.04
Sub-Total					\$16,379.04
<b>Total of all charges for this account</b>					<b>\$16,379.04</b>

\*\*\*\*\* THIS IS NOT AN INVOICE - PLEASE DO NOT PAY \*\*\*\*\*

Account Number: 0038202005

Type: LV

Port Hope TS M4

Information we used to calculate your bill

Total KWH	9,996,587.90
Total KWH w Losses	10,130,193.47

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges				-	-
Shared LV Line	2007-08-08 13:00 EST	\$0.6330		16,248.53 KW non-adj	\$10,285.32
Sub-Total					\$10,285.32
<b>Total of all charges for this account</b>					<b>\$10,285.32</b>

Account Number: 2369553008

Type: LV

Colborne MS #2

Information we used to calculate your bill

Total KWH	466,160.55
Total KWH w Losses	482,010.01

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges				-	-
Shared LV Line	2007-08-03 12:00 EST	\$0.6330		951.97 KW non-adj	\$602.60
Sub-Total					\$602.60
<b>Total of all charges for this account</b>					<b>\$602.60</b>

Account Number: 2447889001

Type: LV

Colborne MS #1

Information we used to calculate your bill

Total KWH	1,013,472.31
Total KWH w Losses	1,047,930.37

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges					-
Shared LV Line	2007-08-08 13:00 EST	\$0.6330		1,938.21 KW non-adj	\$1,226.89
Sub-Total					\$1,226.89
<b>Total of all charges for this account</b>					<b>\$1,226.89</b>

Account Number: 0038202005

Type: LV

Port Hope TS M4

Information we used to calculate your bill

Total KWH	8,344,880.02
Total KWH w Losses	8,460,658.67

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<i>Delivery</i>					
Monthly Service Charges					-
Shared LV Line	2007-07-17 14:00 EST	\$0.6330		36,104.21 KW non-adj	\$22,853.96
Sub-Total					\$22,853.96
Total of all charges for this account					\$22,853.96

Account Number: 2483097018

Type: LV

Port Hope TS M2

Information we used to calculate your bill

Total KWH	15,260,283.73
Total KWH w Losses	15,475,463.31

*All meter quantities have been adjusted by authorized losses where applicable.*

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<i>Delivery</i>					
Monthly Service Charges				-	-
Shared LV Line	2007-08-08 16:00 EST	\$0.6330		27,159.16 KW non-adj	\$17,191.75
Sub-Total					\$17,191.75
<b>Total of all charges for this account</b>					<b>\$17,191.75</b>

\*\*\*\*\* THIS IS NOT AN INVOICE - PLEASE DO NOT PAY \*\*\*\*\*

Account Number: 2369553008

Type: LV

Colborne MS #2

Information we used to calculate your bill

Total KWH	389,234.25
Total KWH w Losses	402,468.21

*All meter quantities have been adjusted by authorized losses where applicable.*

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges				-	-
Shared LV Line	2007-07-09 13:00 EST	\$0.6330		924.50 KW non-adj	\$585.21
Sub-Total					\$585.21
<b>Total of all charges for this account</b>					<b>\$585.21</b>

Account Number: 2447889001

Type: LV

Colborne MS #1

Information we used to calculate your bill

Total KWH	852,806.84
Total KWH w Losses	881,802.27

*All meter quantities have been adjusted by authorized losses where applicable.*

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges				-	-
Shared LV Line	2007-07-10 12:00 EST	\$0.6330		1,847.12 KW non-adj	\$1,169.23
Sub-Total					\$1,169.23
<b>Total of all charges for this account</b>					<b>\$1,169.23</b>

Account Number: 2483097018

Type: LV

Port Hope TS M2

Information we used to calculate your bill

Total KWH	12,167,517.71
Total KWH w Losses	12,342,255.78

*All meter quantities have been adjusted by authorized losses where applicable.*

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges				-	-
Shared LV Line	2007-07-10 16:00 EST	\$0.6330		26,829.96 KW non-adj	\$16,983.36
Sub-Total					\$16,983.36
<b>Total of all charges for this account</b>					<b>\$16,983.36</b>

\*\*\*\*\* THIS IS NOT AN INVOICE - PLEASE DO NOT PAY \*\*\*\*\*

Account Number: 0038202005

Type: LV

Port Hope TS M4

Information we used to calculate your bill

Total KWH	9,307,204.76
Total KWH w Losses	9,432,879.97

*All meter quantities have been adjusted by authorized losses where applicable.*

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges				-	-
Shared LV Line	2007-06-19 14:00 EST	\$0.6330		16,537.72 KW non-adj	\$10,468.38
Sub-Total					\$10,468.38
<b>Total of all charges for this account</b>					<b>\$10,468.38</b>

Account Number: 2369553008

Type: LV

Colborne MS #2

Information we used to calculate your bill

Total KWH	461,980.55
Total KWH w Losses	477,687.89

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges				-	-
Shared LV Line	2007-04-16 20:00 EST	\$0.6300	0.933333	965.57 KW non-adj	\$567.75
Shared LV Line	2007-04-16 20:00 EST	\$0.6330	0.066667	965.57 KW non-adj	\$40.75
Sub-Total					\$608.50
<b>Total of all charges for this account</b>					<b>\$608.50</b>

Account Number: 2447889001

Type: LV

Colborne MS #1

Information we used to calculate your bill

Total KWH	1,018,439.35
Total KWH w Losses	1,053,066.29

*All meter quantities have been adjusted by authorized losses where applicable.*

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges				-	-
Shared LV Line	2007-04-09 11:00 EST	\$0.6300	0.933333	2,037.98 KW non-adj	\$1,198.33
Shared LV Line	2007-04-09 11:00 EST	\$0.6330	0.066667	2,037.98 KW non-adj	\$86.00
Sub-Total					\$1,284.33
<b>Total of all charges for this account</b>					<b>\$1,284.33</b>

Account Number: 2483097018

Type: LV

Port Hope TS M2 + M4

Information we used to calculate your bill

Total KWH

22,767,072.00

Total KWH w Losses

22,903,674.43

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges				-	-
Shared LV Line	2007-04-12 11:00 EST	\$0.6300	0.933333	39,528.00 KW non-adj	\$23,242.46
Shared LV Line	2007-04-12 11:00 EST	\$0.6330	0.066667	39,528.00 KW non-adj	\$1,668.09
Sub-Total					\$24,910.55
Total of all charges for this account					\$24,910.55

\*\*\*\*\* THIS IS NOT AN INVOICE - PLEASE DO NOT PAY \*\*\*\*\*

Account Number: 2369553008

Type: LV

Colborne MS #2

Information we used to calculate your bill

Total KWH	549,029.31
Total KWH w Losses	567,696.31

*All meter quantities have been adjusted by authorized losses where applicable.*

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<i>Delivery</i>					
Monthly Service Charges				-	-
Shared LV Line	2007-03-06 20:00 EST	\$0.6300		1,275.12 KW non-adj	\$803.33
Sub-Total					\$803.33
<b>Total of all charges for this account</b>					<b>\$803.33</b>

Account Number: 2447889001

Type: LV

Colborne MS #1

Information we used to calculate your bill

Total KWH	1,251,077.24
Total KWH w Losses	1,293,613.87

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<i>Delivery</i>					
Monthly Service Charges				-	-
Shared LV Line	2007-03-06 18:00 EST	\$0.6300		2,543.93 KW non-adj	\$1,602.68
Sub-Total					\$1,602.68
Total of all charges for this account					\$1,602.68

Account Number: 2483097018

Type: LV

Port Hope TS M2 + M4

Information we used to calculate your bill

Total KWH

24,891,000.00

Total KWH w Losses

25,040,346.00

*All meter quantities have been adjusted by authorized losses where applicable.*

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<i>Delivery</i>					
Monthly Service Charges				-	-
Shared LV Line	2007-03-06 19:00 EST	\$0.6300		43,344.00 KW non-adj	\$27,306.72
Sub-Total					\$27,306.72
Total of all charges for this account					\$27,306.72

\*\*\*\*\* THIS IS NOT AN INVOICE - PLEASE DO NOT PAY \*\*\*\*\*

Account Number: 2369553008

Type: LV

Colborne MS #2

Information we used to calculate your bill

Total KWH	613,472.61
Total KWH w Losses	634,330.68

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<i>Delivery</i>					
Monthly Service Charges				-	-
Shared LV Line	2007-02-19 19:00 EST	\$0.6300		1,263.58 KW non-adj	\$796.06
Sub-Total					\$796.06
<b>Total of all charges for this account</b>					<b>\$796.06</b>

Account Number: 2447889001

Type: LV

Colborne MS #1

Information we used to calculate your bill

Total KWH	1,382,027.04
Total KWH w Losses	1,429,015.96

*All meter quantities have been adjusted by authorized losses where applicable.*

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<i>Delivery</i>					
Monthly Service Charges				-	-
Shared LV Line	2007-02-05 20:00 EST	\$0.6300		2,759.82 KW non-adj	\$1,738.69
Sub-Total					\$1,738.69
<b>Total of all charges for this account</b>					<b>\$1,738.69</b>

Account Number: 2483097018

Type: LV

Port Hope TS M2 + M4

Information we used to calculate your bill

Total KWH	24,868,032.00
Total KWH w Losses	25,017,240.19

*All meter quantities have been adjusted by authorized losses where applicable.*

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges				-	-
Shared LV Line	2007-02-05 19:00 EST	\$0.6300		44,736.00 KW non-adj	\$28,183.68
Sub-Total					\$28,183.68
<b>Total of all charges for this account</b>					<b>\$28,183.68</b>

\*\*\*\*\* THIS IS NOT AN INVOICE - PLEASE DO NOT PAY \*\*\*\*\*

Account Number: 2369553008

Type: LV

borne MS #2

Information we used to calculate your bill

Total KWH	596,039.85
Total KWH w Losses	616,305.21

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges				-	-
Shared LV Line	2007-01-26 19:00 EST	\$0.6300		1,268.93 KW non-adj	\$799.43
Sub-Total					\$799.43
<b>Total of all charges for this account</b>					<b>\$799.43</b>

Account Number: 2447889001

Type: LV

borne MS #1

Information we used to calculate your bill

Total KWH	1,295,392.79
Total KWH w Losses	1,339,436.15

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges				-	-
Shared LV Line	2007-01-17 18:00 EST	\$0.6300		2,563.35 KW non-adj	\$1,614.91
Sub-Total					\$1,614.91
<b>Total of all charges for this account</b>					<b>\$1,614.91</b>

Account Number: 2483097018

Type: LV

Port Hope TS M2 + M4

Information we used to calculate your bill

Total KWH

23,926,464.00

Total KWH w Losses

24,070,022.78

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges				-	-
Shared LV Line	2007-01-17 10:00 EST	\$0.6300		42,696.00 KW non-adj	\$26,898.48
Sub-Total					\$26,898.48
<b>Total of all charges for this account</b>					<b>\$26,898.48</b>

\*\*\*\*\* THIS IS NOT AN INVOICE - PLEASE DO NOT PAY \*\*\*\*\*

Account Number: 2369553008

Type: LV

Polborne MS #2

Information we used to calculate your bill

Total KWH 560,193.05  
Total KWH w Losses 579,239.61

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges				-	-
Shared LV Line	2006-12-07 19:00 EST	\$0.6300		1,113.72 KW non-adj	\$701.64
Sub-Total					\$701.64
<b>Total of all charges for this account</b>					<b>\$701.64</b>

Account Number: 2447889001

Type: LV

Colborne MS #1

Information we used to calculate your bill

Total KWH	1,299,856.81
Total KWH w Losses	1,344,051.94

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges					-
Shared LV Line	2006-12-04 18:00 EST	\$0.6300		2,494.41 KW non-adj	\$1,571.48
Sub-Total					\$1,571.48
<b>Total of all charges for this account</b>					<b>\$1,571.48</b>

665.98

628.28  
x 1.06

Account Number: 2483097018

Type: LV

Port Hope TS M2 + M4

Information we used to calculate your bill

Total KWH	23,830,488.00
Total KWH w Losses	23,973,470.93

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges				-	-
Shared LV Line	2006-12-07 18:00 EST	\$0.6300		42,864.00 KW non-adj	\$27,004.32
Sub-Total					\$27,004.32
<b>Total of all charges for this account</b>					<b>\$27,004.32</b>

\*\*\*\*\* THIS IS NOT AN INVOICE - PLEASE DO NOT PAY \*\*\*\*\*

Account Number: 2369553008

Type: LV

Home MS #2

Information we used to calculate your bill

Total KWH	481,378.63
Total KWH w Losses	497,745.50

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges					-
Shared LV Line	2006-11-21 18:00 EST	\$0.6300		1,020.27 KW non-adj	\$642.77
Sub-Total					\$642.77
<b>Total of all charges for this account</b>					<b>\$642.77</b>

Account Number: 2447889001

Type: LV

borne MS #1

Information we used to calculate your bill

Total KWH	1,101,159.58
Total KWH w Losses	1,138,599.00

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges				-	-
Shared LV Line	2006-11-20 18:00 EST	\$0.6300		2,278.31 KW non-adj	\$1,435.34
Sub-Total					\$1,435.34
<b>Total of all charges for this account</b>					<b>\$1,435.34</b>

Account Number: 2483097018

Type: LV

Hope TS M2 + M4

Information we used to calculate your bill

Total KWH

22,727,472.00

Total KWH w Losses

22,863,836.83

All meter quantities have been adjusted by authorized losses where applicable.

Charge	Peak Demand Date Time	Rate	Prorate Factor	Units	Total
<b>Delivery</b>					
Monthly Service Charges				-	-
Shared LV Line	2006-11-28 18:00 EST	\$0.6300		39,600.00 KW non-adj	\$24,948.00
Specific LV Line		524.0000		1.80 km	\$943.20
Sub-Total					\$25,891.20
Total of all charges for this account					\$25,891.20

\*\*\*\*\* THIS IS NOT AN INVOICE - PLEASE DO NOT PAY \*\*\*\*\*