Lakefront Utilities Inc.

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

January 28, 2008

Mr. Michael Buonaguro – Counsel for VECC
Vulnerable Energy Consumers Coalition
c/o Public Interest Advocacy Centre
34 King Street East, Suite 1102
Toronto, Ontario
M5C 2X8
Email: mbuonaguro@piac.ca

Dear Mr. Buonaguro:

RE: Lakefront Utilities Inc – 2008 Electricity Distribution Rate Application Ref: EB-2007-0761, Vulnerable Energy Consumers Coalition (VECC) 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 will enclose two paper copies along with a CD to the Board.

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

Yours truly,

Lakefront Utilities Inc.

Original signed

Dereck C. Paul,
Manager Compliance & Finance

Copy: Ms. Kristen Walli – Board Secretary -Ontario Energy Board

Rate Application

Question #1

Reference:
i) Exhibit 1/Tab 1/Schedule 5, page 1
ii) Exhibit 1/Tab 2/Schedule 5
iii) Exhibit 9/Tab 1/Schedule 7
a) Please indicate whether Lakefront is proposing to change the levels for any of its 2007 Specific Service Charges in 2008. If yes, please identify which charges and the rationale for the change.

LUI's Response:
LUI is proposing to add 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.

b) With respect to Reference (ii), Lakefront appears to be introducing a new service charge (Interval Meter Load Management Tool Charge). Please confirm whether this is the case and, if so, what the rationale and basis for the charge is.

LUI's Response:
Yes, LUI is proposing to add the Interval Meter Load Management Tool Charge mentioned in question 1a. 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.

c) Is Lakefront proposing any other new Specific Service Charges for 2008? If so, please describe what they are, the rationale for employing a specific service charge and the basis for the rate.

LUI's Response:
LUI is not proposing any other new Specific Service Charges for 2008 other than mentioned in 1a & 1b above.

Question #2

Reference:

i) Exhibit 1/Tab 1/Schedule 7

a) Please provide additional explanations as to how the correction of the metering error impacts on the RSVA Accounts. In particular, please explain:

• Does the error result in any retroactive changes to the RSVA balances as of December 31, 2006?

• Would this error only lead to an "over collection" in the RSVA – Power account or in all RSVA accounts?

• What is the basis (i.e., Board direction or guideline) that led to Lakefront including the difference in interest in the variance account 1588 calculation?

• For what year was the interest difference adjustment included in the RSVA accounts (i.e., is it included in the December 2006 balance that Lakefront is requesting disposition of?)

• Please provide a continuity schedule for each of the RSVA accounts for the period December 31, 2003 to December 31, 2006 and indicate specifically any changes resulting from the meter reading error.

• Was compensation (apart from the interest compensation) paid to Horizon Plastics and, if so, how has it been treated (e.g., was it also recorded in the RSVA accounts)?

LUI's Response:

Below are the Horizon Plastics dollar amount impacts by RSVA accounts affected by this billing error. Table 1 has the Horizon amounts per year prior to 2006.

Table 1

RSVA		TOTAL	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
1586	**Transmission Connection**	**$ 56,425**	$ 7,780	$ 16,880	$ 31,764
1584	**Transmission Network**	**$ 51,059**	$ 6,399	$ 16,912	$ 27,748
	:Total:		**$ 155,906**	**$ 327,942**	**$ 443,504**

Table 2 demonstrates the adjustments to all the RSVA accounts with the Horizon amounts included.

Table 2

Lakefront Utilities Inc.
December 31, 2006 Variance and Deferral Account Balances

USOA	Description	Principal (TB - Dec 31 06)	Horizon Billing Adjustment	Revised Dec 31 06 Principal Balance
1550	LV Charge	83,188.89	2,998.22	**86,187.11**
1580	Wholesale Market Serv	-250,249.45	84,862.88	**-165,386.57**
1584	Transmission Connect	-174,632.50	56,424.62	**-118,207.88**
1586	Transmission Network	-174,752.33	51,058.82	**-123,693.51**
1588	Power Variance	323,459.00	732,005.98	**1,055,464.98**
		-192,986.39	**927,350.52**	**734,364.13**

During discussions with Board staff, LUI proposed the treatment of the interest in variance account 1588 to keep the utility (LUI) whole. The interest is included in the December 2006 balance that Lakefront is requesting disposition of.

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}***).**

No other compensation other than the billing error correction and interest at bank prime was made to Horizon Plastics.

A continuity schedule for each RSVA account for the period December 31, 2003 to December 31, 2006 is attached in Excel Spreadsheet, Appendix (i) along with the Horizon Plastics changes for each month. Also, attached is Appendix (ii) relates to the specific RSVA account affected as a result of the meter reading error.

b) With respect to Transition Cost Recovery Item (a), please indicate:
• What the outstanding balance with respect to transition cost recovery is after the two years? Is it equal to (or just a part of) the $598,999 April 30, 2008 balance reported for Account 1590?

LUI's Response:
The balance of Transition Cost Recovery after the two years is equal to the $598,999 April 30, 2008 balance.

• How Lakefront proposes (from an accounting perspective) to separate this item (which will not attract interest) from other items that may be captured in the 1590 Account that will attract interest?

LUI's Response:
Interest is calculated manually on all RSVA accounts and interest was not calculated on the $598,999 prior to May/1/08. LUI plans to charge interest as per standard variance account treatment going forward.

Question #3

Reference:

i) Exhibit 1/Tab 1/Schedule 8

a) Please provide an illustrative "accounting order" that shows how the "Future Capital Projects" deferral/variance account would work.

LUI's Response:

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

b) What information would Lakefront anticipate filing at the time of its next rebasing to justify clearance of the "Future Capital Projects" account?

LUI's Response:

LUI anticipates filing evidence that demonstrates the prudence of its capital expenditures during the IRM period.

c) Why is a separate deferral/variance account needed for MDMR as opposed to treating the expense as part of Account #1556?

LUI's Response:

LUI has not included MDMR projected costs in our projected operating expenses. We feel that 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.

Question #4

Reference:

i) Exhibit 1/Tab 1/Schedule 14

a) Please provide copies of the Service Agreement between:
• LUSI and LUI for the services provided by LUSI to the Utility
• CNI and LUI for the services provided by CNI to the Utility
• LUI and its affiliates for services provided by the Utility.

LUI's Response:

Attached is LUI's service agreement with LUSI as Appendix (iii).

LUI does not have any other service agreement with other affiliates.

b) If not provided in response to part (a) please indicate:
• The specific services provided by LUSI to LUI
• The specific services provided by CNI to LUI
• The specific service provided by LUI to each of its affiliates

LUI's Response:

LUSI is a non-profit services company and serves as a vehicle to provide OM &A services to LUI. All expenses associated with providing these manpower services are passed through to LUI at cost. Specific services LUSI provides to LUI ranged from meter reading, customer care, IT processing, emergency response, regional planning, billing, collections, administration, safety programs, training programs.

All charges to LUI by LUSI are based on actual costs incurred and are based solely on cost recovery. The affiliate's costs are not based on the utility's avoided costs. LUI is not charged any mark-up or profit on these charges. When additional costs are incurred on behalf of the affiliate, in this case LUI, LUSI must pass the costs through to LUI as though the company incurred that expense on its own.

LUI is always seeking ways to improve efficiencies in its business operations. LUI's decision to outsource distributor functions to its affiliate translates to cost savings resulting in lower rates which is in the best interest of the utility and its ratepayers.

CNI provides internet services to LUI through LUSI.

There are no specific services provided by LUI to any affiliates.

c) Please provide a schedule that for 2006 (actual), 2007 (forecast) and 2008 (forecast) lists the charges made by LUSI and CNI to LUI for each of the services provided and indicates the basis on which the cost of the service was determined.

LUI's Response:
All operating costs included in the Application reflect LUSI's actual costs that are passed through to LUI.

d) Please provide a schedule that for 2006 (actual), 2007 (forecast) and 2008 (forecast) lists the charges made by LUI to each of its affiliates for each of the services provided and indicates the basis on which the cost of the service was determined.

LUI's Response:
LUI charges CNI a monthly fee of $300 for space rental expense.
LUI also charges Town of Cobourg Waterworks $4,000 for rental expenses, $1,000 of which is office space and $3,000 for garage space. These rents are reviewed and adjusted from time to time when required.

Question #5

Reference:

i) Exhibit 1/Tab 2/Schedule 1

ii) Exhibit 4/Tab 2/Schedule 6, page 2

a) Given the Lakefront Application was prepared in 2007, please explain the basis for including the bulk of the costs from Ogilvy Renault and ERA associated Application in 2008.

LUI's Response:

The costs associated with preparing LUI's 2008 application are for rates that will be implemented in 2008. Therefore, those costs are included in the 2008 test year. If application costs were included in the bridge year, LDCs would never be able to recover them under a forward test year regime. This approach has been used by the gas distribution companies (i.e. Union, Enbridge, NRG) and has been accepted by the Board in the normal course.

b) Do the 2007 and 2008 costs shown in Reference (ii) for Ogilvy Renault and ERA represent the total costs from these two parties associated with the 2008 Rate Application?

LUI's Response:

Yes, it shows the total estimated cost from these two parties.

c) Are there any other costs in Reference (ii), from other service providers, that are associated with the preparation of the 2008 Rate Application? If so, what are they?

LUI's Response:

There are no other costs associated directly with the preparation of the 2008 EDR in Reference (ii) but we budget $10,000 for Hydro One to redo our Cost Allocation study in 2008.

d) Given that rate rebasing is a periodic event, was any consideration given to amortizing the cost of preparing the Application over the period of the 3GIRM?

LUI's Response:

LUI did consider spreading the cost of the rate application over the three year period, but we are not confident that LUI can wait until the year 2011 before rebasing again due to the uncertainty of our ability to earn a return on capital investments made during the IRM period.

Question #6

Reference:

i) Exhibit 1/Tab 2/Schedule 1, pages 4-5

a) Has Lakefront received authorization (from the provincial government) to proceed with the procurement of Smart Meters? If so, please provide. If not, what is Lakefront's understanding as to when such authorization will be provided?

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 (Vii) is a copy of the letter received from the MOE dated December 21, 2007.

b) On what basis (i.e., OEB policy or directive) has Lakefront decided that it is appropriate to include its Smart Meter related costs for 2008 in its distribution revenue requirement as opposed to tracking the revenue requirement impacts in a variance account and establishing an appropriate "rate adder"?

LUI's Response:

Lakefront took the approach of including Smart Meter costs for 2008 distribution requirements because of the Government's mandate 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 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.

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.

c) Please provide a schedule setting out Lakefront's plan with respect to the annual deployment of new Smart Meters over the 2008 to 2010 period.

LUI's Response:
LUI's plan is to deploy Smart Meters to all our customers within the last quarter of 2008, "piggy-backing" on the London RFP. Implementation of Smart Meters throughout our territory in one large deployment phase is economically feasible and efficient as we only have a total of 9,088 customers as at the end of 2007.

d) Please provide a schedule setting out:
• The capital spending on Smart Meters forecast for 2008
• The revenue requirement impacts (i.e., depreciation, return and taxes) associated with the Smart Meters in-service in 2008
• The 2008 OM&A expense associated with Smart Meters.

LUI's Response:
Please find attached Appendix (iv) with LUI capital spending on Smart Meters forecast for 2008 as well as the OM&A expenses associated with Smart Meters. Please refer to the table below for revenue impacts:

The forecast capital spending on smart meters for 2008 is $2,037,923.
The revenue requirement impacts associated with the Smart Meters in 2008 are:

Depreciation: calculated over 17.5 years, annual percentage rate of 5.7%, expense per year $116,161
Net income: the full depreciation of $116,161 will be taken for 2008. Revenue for book purposes will be reduced by the $116,161 for 2008.
Taxes: at an income tax rate of 36.519% the taxes would be reduced on the books by $42,420 for 2008. For tax preparation purposes the 50% rule would apply reducing the taxes by $22,210.

The forecast 2008 OM&A expense associated with smart meters is $220,278.

Expenses:	Operations	AMRC including WAN costs	$6,664
		AMCC	22,175
		AMI miscellaneous, including labour for daily operations	128,341
			$157,180
	Billing/customer service		
		Smart meter customer presentment tools, WEB, IVR	$5,621
		Smart meter entity MDM/R, est. based on OEB 2005	37477
			$43,098
	Finance/corporate		
		AMI security audits	$20,000
		Total	$220,278

Please refer to exhibit 2 tab 3 schedule 1 pages 7 to 13

e) Based on the spending planned for Smart Meters and the funds collected to date from the Smart Meter Rate adder, please compute the 2008 rate adder consistent with maintaining the reporting of Smart Meter spending through the variance accounts established by the Board.

LUI's Response:
Utilizing the OEB 2007 EDR Smart Meter Rate Calculation model and inputting the figures from Appendix iv, LUI computed the 2008 rate adder of $2.51.

Question #7

Reference:

i) Exhibit 1/Tab 2/Schedule 4

a) Please confirm that the $3,730,325 in "Distribution Revenue" represents Distribution revenues based on 2007 billing quantities and 2007 approved rates. If this is the case, please re-do the calculation of deficiency using Distribution Revenues based on 2008 billing quantities and 2007 approved rates.

LUI's Response:

The $3,730,325 represents forecast Distribution revenues based on projected 2007 billing quantities and 2007 approved rates. Below is the calculation using forecast 2008 billing quantities and 2007 rates showing the Distribution Revenues at $3,749,655:

	2008 Test - Projected			
	Customers	Projected Consumption	Consumption	Projected Base Revenue Requirement
	(Year-End)	(kWh)	(KW)	($)
Residential	8,012	77,241,202	-	1,814,211
General Service Less Than 50 kW	1,075	36,960,206	-	691,864
General Service 50 to 2,999 kW	127	117,291,948	270,520	1,088,527
General Service 3,000 to 4,999 kW	2	55,719,421	123,329	116,386
Unmetered Scattered Load	79	620,588	-	10,072
Sentinel Lighting	58	49,428	98	1,884
Street Lighting	2,739	2,065,217	5,335	26,711
TOTAL	**12,092**	**289,948,010**	**399,282**	**3,749,655**

b) Please confirm whether the 2007 rates used to determine Distribution Revenue (per part (a)) included the Smart Meter rate adder. If not, please revise accordingly.

LUI's Response:

The Smart Meter rate adder is within the forecast 2007 Distribution Revenue.

c) Please confirm that the deficiency (as filed) suggests a 27.1% increase in required base distribution revenues for 2008.

LUI's Response:

Confirmed.

d) Please explain the “Net Adjustments per 2008 PILs” of $73,740.

LUI’s Response:

The $73,740 is the difference of Total Additions – Total Deductions in the 2008 PILs calculation, i.e.

ADDITIONS: Amortization of tangible assets (L104)	**= $**	**888,341**
Reserve from FS – End of Yr bal (L126)	**= $**	**264,625**
Other Additions (L295)	**= $**	**522,974**
TOTAL ADDITIONS (A)	**= $**	**1,675,940**
DEDUCTIONS: Capital Cost Allowance, Schd 8 (L403)	**= $**	**820,083**
Reserve from FS – Bal @ begin yr (L414)	**= $**	**256,917**
Interest capitalized for accounting (L390)	**= $**	**2,226**
Other Deductions (L394)	**= $**	**522,974**
TOTAL DEDUCTIONS (B)	**= $**	**1,602,200**
Difference (A-B)	**= $**	**73,740**

Question #8

Reference:

i) Exhibit 1/Tab 23Schedule 4, page 1

a) Please indicate when the voltage conversion program started and when it is expect to be completed.

LUI's Response:

Voltage conversion work started in 1990 at LUI and continues to this day. It is an ongoing initiative. Our goal is to change out all 4.16 kV lines to 27.6 kV lines. At current annual capital expenditures, we project this work to be completed over the next 10 years.

b) Please indicate when Lakefront expects to start experiencing lower line losses as a result of the conversion program.

LUI's Response:

Lower line losses will be ongoing as the work continues.

Question #9

Reference:

i) Exhibit 2/Tab 3/Schedule 1, page 7

a) Please indicate what portion of the $2,037,923 capital spending on Meters (Account 1860) is associated with Smart Meters.

LUI's Response:

$1,956,245 is Smart Meters capital spending for 2008 and $81,678 for repair of unsafe meter bases, propagation studies, consulting services, legal for installation contract and old meter recycling.

b) Please explain the distinction between the $1,956,245 and the $81,678 spending on Meters in 2008.

LUI's Response:

Please see above 9a answer

c) Please indicate precisely where in Appendix D the Lakefront Smart Meter plan and the details supporting the Smart Meter spending indicated in response to part (a) can be found.

LUI's Response:

LUI Smart Meter plan and details can be found in Exhibit 2, Tab 3, Schedule 1, pages 7 to 13. Appendix D was a confidential CHEC document that LUI requested the OEB to remove. We apologize for any confusion this may have caused.

d) Is there spending in any other Account (besides #1860) which is related to Smart Meters? If so, please indicate which accounts, the amount of spending involved and what the spending is for.

LUI's Response:

Ac#5175 consists of $220,278 related to Smart Meters Operation and Maintenance as per the details of LUI Plan in Appendix iv and found in Exhibit 2, Tab 3, Schedule 1, pages 7 to 13.

Question #10

Reference:

i) Exhibit 2/Tab 3/Schedule 1

a) Please provide a summary Schedule that shows the capital spending and capital additions for each of the years 2006 (actual) through 2008 for each of the following asset categories:

- Land and Buildings (Accounts 1805, 1806, 1810)
- DS (Account 1820)
- Poles and Wires – Overhead (Accounts 1830 and 1835)
- Underground (Accounts 1840 and 1845)
- Line Transformers (Account 1850)
- Services and Meters (Accounts 1855 and 1860)
- IT Assets
- Equipment
- Other Distribution Assets

LUI's Response:

Please see attached below

Capital Spending and Capital Additions

	2006 Actual	2007 Bridge	2008 Test
Land and Buildings			
1805-Land	164,819	0	0
1806-Land Rights	0	0	0
1808-Buidlings & Fixtures	719,578	50,000	10,000
	884,397	**50,000**	**10,000**
DS			
1820-Distribution Station Equipment <50 kV	**191,088**	**0**	**0**
Poles and Wires			
1830-Poles, Towers and Fixtures	95,546	259,462	115,229
1835-Overhead Conductors and Devices	55,962	432,127	177,612
	151,508	**691,589**	**292,841**
Underground			
1840-Underground Conduit	12,820	0	0
1845-Underground Conductors and Devices	34,580	0	0
	47,400	**0**	**0**
Line Transformers			
1850-Line Transformers	**76,435**	**637,343**	**180,912**
Services and Meters			
1855-Services	37,182	0	0
1860-Meters	0	80,000	2,041,819
	37,182	**80,000**	**2,041,819**
IT Assets			
1920-Computer Equipment - Hardware	9,990	0	0
1925-Computer Software	1,987	15,000	115,000
	11,977	**15,000**	**115,000**
Equipment			
1915-Office Furniture and Equipment	44,742	0	25,000
1930-Transportation Equipment	190,134	60,000	260,000
1940-Tools, Shop and Garage Equipment	4,300	10,000	25,000
	239,176	**70,000**	**310,000**

b) For each year (2006 to 2008) please indicate the total spending by account associate with:
• The Voltage Conversion Program
• The Smart Meter Program

LUI's Response:
Please see attached below for Voltage Conversion Program. LUI has not spent any money on the Smart Meter Program other than consulting fees of which $77,606 are in Ac#5340 for 2007.

Voltage Conversion Program			
Poles and Wires	**2,006**	**2,007**	**2,008**
1830-Poles, Towers and Fixtures	47,182	259,462	115,229
1835-Overhead Conductors and Devices	0	432,127	177,612
1850-Line Transformers	0	637,343	180,912

Question #11

Reference:

i) Exhibit 2/Tab 3/Schedule 1, page 1

a) Please explain the relevancy, in terms of assessing the appropriateness of Lakefront's proposed level of capital spending, of comparing "system reinvestment" with the "depreciation allowance".

LUI's Response:

As a result of the rate freeze for several years, LUI postponed investment in system infrastructure as funds were used for transition costs at market opening and due to the uncertainty of those recoveries at the time, cash flow became a consideration. However, the system can only sustain itself for a certain period without reinvestment for replacements and maintenance to ensure reliability. From a trending perspective, it may be perceived LUI's proposed level of capital spending has increased recently, however when viewed holistically over the last eight years, management believe the system reinvestment amount is appropriate in comparison with the depreciation allowance.

b) Has Lakefront performed any form of Asset Condition Assessment in order to determine areas of required spending for system sustainment and their priority? If yes, please provide. If not, on what basis did Lakefront determine the 2008 sustainment capital spending projects it is undertaking?

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 also formed the basis for system sustainment, refurbishing and conversion from 4.16 kV to 27.6 kV spending. A copy of the study is attached as Appendix V.

A plan to further the voltage conversion was developed which took into consideration the system condition.

Question #12

Reference:

i) Exhibit 2/Tab 3/Schedule 2, page 4

a) Please confirm that the 8,923 meters represent the total number of Smart Meters Lakefront needs to deploy by 2010. If not, what is the number?

LUI's Response:

The 8,923 figure represents residential customers (7,873) and GS<50kW (1050) customers forecasted for 2008. As of the end of 2007 the meter count has increased to 9,088 for all customers.

b) Does the $2,041,819 spending in 2008 represent the cost of installing all 8923 meters?

LUI's Response:

Yes – Please refer to Appendix iv.

c) Why is Lakefront proposing to complete the Smart Meter installation all in 2008 as opposed to phasing it in over 2008-2010?

LUI's Response:

Implementation of Smart Meters throughout our territory in one large deployment phase in Q4 of 2008, is economically feasible and efficient as we only have a total of 9,088 customers as at the end of 2007.

Question #13

Reference:

i) Exhibit 2/Tab 4/Schedule 1, page 2

a) Please indicate how the forecasts for the 2007 and 2008 for the various cost of power components were developed. In particular, what was the assumption regarding the average cost purchased power in 2008 (i.e., the average HOEP)?

LUI's Response:

The average HOEP used for cost of power calculation was $57.16 / MW. This figure was derived at with discussions between our Application model consultant, Elenchus Research Associates (ERA) and from the Navigant Report to the Board title "Ontario Wholesale Electricity Market Price Forecast – for the period May, 2007 through October 31, 2008 dated April 12, 2007, page (i) of the Executive Summary.

b) Why are there no reductions in the forecast for Transmission Network and Connection charges consistent with the lower pooled wholesale rates approved by the OEB for 2008?

LUI's Response:

The OEB approved the 2008 transmission rate after LUI filed its application.

Question #14

Reference:

i) Exhibit 3/Tab 1/Schedule 2, page 1

a) Please confirm whether that the bridge year revenue represents revenues based on rates approved for 2007 and 2007 billing quantities. If this is not the case, what is the basis for the values.

LUI's Response:

The bridge year revenue does represent forecast revenues based on rates approved for 2007 and forecast 2007 billing quantities.

Question #15

Reference:

i) Exhibit 3/Tab 2/Schedule 1, pages 2-3

a) The text states that the number of customers in the GS > 50 – 2,999 class was held constant at 129 for 2007 and 2008. However, the table shows a 2008 value of 127. Please reconcile. If the 127 figure is correct, please explain the reason for the assumed decrease in customers.

LUI's Response:

The 127 figure is correct. As illustrated by the table below that incorporates actual 2007 customer numbers (Q# 15b), the GS>50-2,999 and all classes. Now we have actual 2007 figures and it is reflected in the chart below (Q#15b). The GS>50-2,999 class customer count dropped from 142 to 132 between 2006 and 2007. This is attributed to change in customer count and yearly reassessment by LUI of customer classes base on annual kWh consumption, i.e. the mall restructured and combined stores. We expect this trend to continue, which is the basis for the 127 figure.

b) Please provide a schedule setting out the number of customers by class for the period 2002 – 2006.

LUI's Response:

Please see chart below

Customer Class	2002 Count	2003 Count	2004 Count	2005 Count	2006 Count	2007 Count
Residential	7339	7438	7494	7598	7781	7879
GS < 50 kW	947	967	973	1027	1044	1047
GS > 50 kW	142	136	136	137	142	132
Intermediate	1	1	2	2	2	2
Sentinel Lights	48	52	55	55	56	57
Street Lighting	2604	2619	2643	2668	2693	2716
USL	80	76	76	77	79	81

c) Please confirm that Cobourg has recently experienced new condominium construction. If so, how is this reflected in the customer and load growth forecasts.

LUI's Response:

Cobourg has experienced new condominium constructions over the last two years and those as well as future projects are factored into the projections. The majority of condominiums are bulk metered with individual sub-metering (a LUI requirement of bulk metering for condominiums) which results in a lower customer growth count.

Question #16

Reference:

i) Exhibit 3/Tab 2/Schedule 3, page 2

ii) Exhibit 3/Tab 2/Schedule 4, page 1

a) In Reference (i), the text suggests that the number of customers in the Sentinel Lighting, Street Lighting and USL classes is unchanged from 2007 to 2008. However, in Reference (ii) the number of customers in the Street Lighting and Sentinel Light classes increase in 2008. Please reconcile.

LUI's Response

We apologize for this text error, the correct verbiage is reflected in Exhibit 3, Tab 2, Schedule 5, page 1 bottom paragraphs, and should read as follows:

> **2007 Bridge Year compared to 2008 Test Year**
>
> "The same four classes are again projecting to show a change in customer numbers from 2006 to 2007. These are residential, GS<50 kW, Sentinel Light and Street Lighting classes. The residential class is increasing by 116 customers, the GS <50 kW class by 16 customers, Sentinel Lights by 1 customer and Street Lighting by 23 connections, using the annual trend growth rate as a conservative projection for the 2008 Test Year.
>
> The GS >50 to 2,999 kW class is seeing a decline of 2 customers and the GS> 3,000 to 4,999 kW and USL classes does not expect the number of customers in these classes to change in the next year."

The GS>3,000 to 4,999 KW class is predicted to decrease by 1 as a result of a recent announcement by Kraft Canada.

Question #17

Reference:

i) Exhibit 3/Tab 3/Schedule 1

a) Please explain why the SSS Admin revenues are the same in 2007 and 2008 when the number of small volume customers (i.e., residential and GS<50) are forecast to increase.

LUI's Response:

The total amount of customer increase from 2007 to 2008 is 155. We will make the adjustment to increase the SSS Admin Revenue by $465.00

b) Are the revenues received from services provided to affiliates reported here? If so, where are they captured? If not, where are such revenues reflected in the Application?

LUI's Response:

Yes, they are reflected here. Rent is captured in Ac#4205 and 4210.

Question #18

Reference:

i) Exhibit 3/Tab 3/Schedule 4, page 2

a) Please provide the 2007 rates used to create the 2007 bridge year projection and confirm whether the rate used included the Smart Meter rate adder.

LUI's Response:

The rate used included current Smart Meter rate adder and is part of our distribution charge in the rate schedule below.

ClassName	RateType	Metric	Amount
Residential	Distribution	Customer	9.5200
Residential	Distribution	kWh	0.0113
Residential	Regulatory Asset Recovery	kWh	0.0059
Residential	Retail Transmission - Network	kWh	0.0049
Residential	Retail Transmission - Line and Transformation Co	kWh	0.0040
Residential	Wholesale Market Service	kWh	0.0052
Residential	Rural Rate Protection Charge	kWh	0.0010
Residential	SSS Administrative Charge	SSS Custome	0.2500
General Service Less Than 50 kW	Distribution	Customer	25.0800
General Service Less Than 50 kW	Distribution	kWh	0.0097
General Service Less Than 50 kW	Regulatory Asset Recovery	kWh	0.0013
General Service Less Than 50 kW	Retail Transmission - Network	kWh	0.0045
General Service Less Than 50 kW	Retail Transmission - Line and Transformation Co	kWh	0.0036
General Service Less Than 50 kW	Wholesale Market Service	kWh	0.0052
General Service Less Than 50 kW	Rural Rate Protection Charge	kWh	0.0010
General Service Less Than 50 kW	SSS Administrative Charge	SSS Custome	0.2500
General Service 50 to 2,999 kW	Distribution	Customer	200.8000
General Service 50 to 2,999 kW	Distribution	kW	2.9563
General Service 50 to 2,999 kW	Regulatory Asset Recovery	kW	0.3756
General Service 50 to 2,999 kW	Retail Transmission - Network	kW	1.8183
General Service 50 to 2,999 kW	Retail Transmission - Line and Transformation Co	kW	1.4440
General Service 50 to 2,999 kW	Wholesale Market Service	kWh	0.0052
General Service 50 to 2,999 kW	Rural Rate Protection Charge	kWh	0.0010
General Service 50 to 2,999 kW	SSS Administrative Charge	SSS Custome	0.2500
General Service 3,000 to 4,999 kW	Distribution	Customer	1,762.3700
General Service 3,000 to 4,999 kW	Distribution	kW	0.5994
General Service 3,000 to 4,999 kW	Regulatory Asset Recovery	kW	(0.4697)
General Service 3,000 to 4,999 kW	Retail Transmission - Network	kW	2.0336
General Service 3,000 to 4,999 kW	Retail Transmission - Line and Transformation Co	kW	1.7030
General Service 3,000 to 4,999 kW	Wholesale Market Service	kWh	0.0052
General Service 3,000 to 4,999 kW	Rural Rate Protection Charge	kWh	0.0010
General Service 3,000 to 4,999 kW	SSS Administrative Charge	SSS Custome	0.2500
Street Lighting	Distribution	Connection	0.1500
Street Lighting	Distribution	kW	0.9459
Street Lighting	Regulatory Asset Recovery	kW	(0.3007)
Street Lighting	Retail Transmission - Network	kW	1.3713
Street Lighting	Retail Transmission - Line and Transformation Co	kW	1.1163
Street Lighting	Wholesale Market Service	kWh	0.0052
Street Lighting	Rural Rate Protection Charge	kWh	0.0010
Street Lighting	SSS Administrative Charge	SSS Custome	0.2500
Sentinel Lighting	Distribution	Connection	1.9800
Sentinel Lighting	Distribution	kW	4.8832
Sentinel Lighting	Regulatory Asset Recovery	kW	(0.6404)
Sentinel Lighting	Retail Transmission - Network	kW	1.3782
Sentinel Lighting	Retail Transmission - Line and Transformation Co	kW	1.1396
Sentinel Lighting	Wholesale Market Service	kWh	0.0052
Sentinel Lighting	Rural Rate Protection Charge	kWh	0.0010
Sentinel Lighting	SSS Administrative Charge	SSS Custome	0.2500
Unmetered Scattered Load	Distribution	Customer	11.1900
Unmetered Scattered Load	Distribution	kWh	0.0255
Unmetered Scattered Load	Regulatory Asset Recovery	kWh	0.0050
Unmetered Scattered Load	Retail Transmission - Network	kWh	0.0052
Unmetered Scattered Load	Retail Transmission - Line and Transformation Co	kWh	0.0045
Unmetered Scattered Load	Wholesale Market Service	kWh	0.0052
Unmetered Scattered Load	Rural Rate Protection Charge	kWh	0.0010
Unmetered Scattered Load	SSS Administrative Charge	SSS Custome	0.2500

Question #19

Reference:

i) Exhibit 4/Tab 2/Schedule 1, pages 1-3

ii) Exhibit 4/Tab 2/Schedule 3, page 2

a) Please explain the material increases (over 40%) in spending on Transformer Station Equipment (Accounts 5014 and 5015) between 2006 (actual) and 2007.

LUI's Response:

The increase in spending from $29,979 in 2006 to $43,672 in 2007 on Transformer Station Equipment was due to roof repairs at one of the sub-stations and there was a breaker failure problem incurred at one of our stations.

b) Please provide the data and analyses that led to concerns about reliability of service issues for line transformers and a more than 80 % increase in maintenance spending between 2006 (actual) and 2007.

LUI's Response:

The increase from $34,975 in 2006 to $63,613 in 2007 for Ac#5160 increased due to storms, which resulted in higher transformer repairs and pole line, service repairs and other uncontrollable operational items.

c) Please explain the more than 14% increase in Meter Reading expense (Account 5310) between 2006 (actual) and 2007.

LUI's Response:

The increase in Meter Reading expense relates to a project to identify inside and outside meter volumes and an increase in rates from our vendor after a freeze of more than four years.

d) The explanation for the $34,737 increase in Management Salaries and Expenses between 2006 (actual) and 2007 makes reference to wage scale improvements. Please explain the nature and reason for wage scale improvements that led to almost a 13% increase in management salaries.

LUI's Response:

The wage adjustments referred to in the explanation is only part of the increase. Included in this account are management expenses which are over stated in the rate proposal compared to the actual year end figure as more expenses were anticipated due to industry activity than actually occurred. Another portion of this account that some management have not taken their holiday allotment in full and that working time stays in this account .

e) Please explain what the additional CDM funds approved for 2007 were for. Were these funds part of Lakefront's 3rd tranche spending?

LUI's Response:
The additional CDM funds are for System Optimization work LUI is doing that translates into lower Distribution line losses, energy savings and ultimately the conservation culture. These funds were in addition to the 3rd tranche funds that were approved by the Board in the amount of $170,000.

f) How much of the $237,509 spending in 2008 on Maintenance of Meters (Account #5175) is attributed to Smart Meters?
LUI's Response:
Ac#5175 consists of $220,278 related to Smart Meters Operation and Maintenance as per the details of LUI Plan in Exhibit 2, Tab 3, Schedule 1, pages 7 to 13.

g) Why is the installation of Smart Meters considered a Maintenance expense instead of part of the capital cost of the new meter (per Reference (ii), page 3)?

LUI's Response:
Certain daily operations labour amount and interaction with the vendor along with testing makes up the maintenance expense as outlined in Exhibit 2, Tab 3, Schedule 1, pages 7 to 13. These should have been included as part of the capital cost instead of maintenance and LUI will adjust this item accordingly.

h) Does the installation of the Smart Meters in 2008 lead to any reduction in Billing and Collecting expense for that year? If yes, how much and were is it reflected in the OM&A Costs Table? If not, why not?

LUI's Response:
LUI does not show any reduction in Billing and Collecting expense for 2008 as a result of installation of Smart Meters because installation will occur towards end of the year and we will not switch to TOU billing in 2008.

i) The written explanation of the 2008 versus 2007 Energy Conservation variance suggests an increase of $41,647. However, the Table in Reference (i) shows a decrease of $38,751. Please reconcile and clarify level and purpose of Energy Conservation spending projected for 2008.

LUI's Response:
LUI applied to the OEB for CDM funding in its 2007 EDR and a Decision by the Board on August 13, 2007 approved the request by LUI to "include the Distribution System Optimization and Line Loss program as a CDM program in the amount of $119,169.
In its April 12, 2007 Decision, the Board indicated then that LUI should include only the annual capital-related expenses in 2007 rates, in the amount of $38,761. As the Board is approving the extension of this CDM program, $38,761 will be collected in 2007 rates and the $80,408 difference shortfall to be addressed in this rate basing to attain the full $119,169

approved. The difference of $80,408 and $38,761 is showing as a $41,647 increase in 2008.

j) Please provide a further breakdown of the $100,000 increase in regulatory spending attributed to the preparation of the 2008 Rate Application.

LUI's Response

The $100,000 was budgeted base on discussions with our legal representative and estimates obtained to complete the Application process. In our budget, the following anticipated costs were considered: Purchase of Application Model from Elenchus Research Associated (ERA), Cost for support from ERA and our CHEC Finance Consultant, Legal (Ogilvy Renault) costs with preparation of Application, Intervenors cost and costs associated with a Hearing.

Below is a breakdown of the $100,000 increase in regulatory spending:

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 resouces)	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%
	Totals	**46,296**	61,547	**12,349**	138,849	
	2007-2008 Projection	46,296	49,198	**Carry Over to 2008**	149,198	

Question #20

Reference:

i) Exhibit 4/Tab 2/Schedule 8, page 1

a) Please provide a schedule that shows (for 2006-Board Approved through to 2008) and for each of the various asset classes:

- The Beginning Gross Book value
- The Depreciation Rate
- The Annual Depreciation

The total annual depreciation for each year should reconcile with the amortization expenses shown in Exhibit 4/Tab 1/Schedule 2.

LUI's Response:

Please refer to table below

VECC Q20
File: VEC Q20 a Ex 4 T2 S8

	Gross Book Value 2006 BA	Deprec. Rate 2006 BA	Annual Depreciation 2006 BA	Gross Book Value 2006	Deprec. Rate 2006	Annual Depreciation 2006	Gross Book Value 2007	Deprec. Rate 2007	Annual Depreciation 2007	Gross Book Value 2008	Deprec. Rate 2008	Annual Depreciation 2008
1610-Tangible Plant	293,600	0.0%	0	482,400	0.0%	0	482,400	0.0%	0	482,400	0.0%	0
1805-Land	54,465	0.0%	0	219,284	0.0%	0	219,284	0.0%	0	219,284	0.0%	0
1806-Land Rights	11,363	0.0%	0	11,363	0.0%	0	11,363	4.0%	455	11,363	4.0%	455
1808-Buildings and Fixtures - New Garage Faciltiy	385,981	0.6%	2,112	765,069	4.0%	31,929	815,069	2.0%	15,801	825,069	2.0%	16,401
1815-Dist Station Equip - Normally Primary > 50 kV	21,401	4.0%	856	0	4.0%		0	3.3%		0	3.3%	
1820-Dist Station Equip - Normally Primary < 50 kV	2,517,601	3.3%	81,954	2,730,090	3.3%	88,160	2,730,090	3.33	90,912	2,730,090	3.3%	90,912
1830-Poles, Towers and Fixtures	3,658,034	0.3%	9,683	3,883,075	0.4%	16,871	4,142,537	4.0%	160,512	4,257,766	4.0%	168,006
1835-Overhead Conductors and Devices	3,253,759	8.8%	285,818	3,620,842	7.3%	263,274	3,062,671	4.0%	116,271	3,131,109	4.0%	123,876
1840-Underground Conduit	433,112	4.0%	18,100	446,063	4.0%	18,613	446,063	4.0%	17,843	446,063	4.0%	17,843
1845-Underground Conductors and Devices	2,762,564	4.0%	109,545	2,807,068	4.0%	111,114	2,807,068	4.0%	112,283	2,807,068	4.0%	112,283
1850-Line Transformers	3,271,547	3.8%	129,561	3,547,905	3.8%	134,108	4,015,084	4.0%	147,857	4,195,996	4.0%	164,222
1855-Services	430,171	2.8%	12,016	516,197	2.8%	14,617	377,581	4.0%	15,103	377,581	4.0%	15,103
1860-Meters	911,029	4.0%	32,303	825,640	4.0%	33,641	905,640	5.7%	49,341	2,947,459	5.7%	109,813
1908-Buildings and Fixtures	507,818	5.7%	28,815	507,818	5.7%	28,815	A.	2.0%	4,286	0	2.0%	0
1915-Office Furniture and Equipment	9,735	38.0%	3,689	83,191	20.0%	16,638	83,191	10.0%	8,319	108,191	10.0%	9,569
1920-Computer Equipment - Hardware	228,476	5.8%	13,340	260,962	14.2%	37,034	101,519	20.0%	25,462	60,595	20.0%	16,211
1925-Computer Software	88,902	6.5%	5,788	168,399	0.2%	397	45,926	20.0%	7,685	160,926	20.0%	20,685
1930-Transportation Equipment	100,406	20.0%	20,081	290,540	20.0%	58,108	350,540	12.5%	40,067	510,134	12.5%	53,792
1940-Tools, Shop and Garage Equipment	108,355	5.6%	6,269	129,043	5.6%	7,234	70,365	10.0%	6,831	93,083	10.0%	8,172
1945-Measurement and Testing Equipment	-2,785	10.0%	-	-2,785	10.0%	0	-2,785	10.0%	-279	-2,785	10.0%	-279
1980 - System Supervisory Equipment	28,619	10.0%	2,985	28,619	10.0%	2,985	A.	6.7%	954	0	6.7%	0
1995-Contributions and Grants - Credit	-573,975	4.0%	(25,338)	-968,096	4.0%	-38,724	-968,096	4.0%	-38,724	-968,096	4.0%	-38,724
	18,500,178		737,576	20,352,687		824,814	19,695,510		780,979	22,393,296		888,340

A. Fully depreciated in the year

Note… Depreciation for the Board approved and actual 2006 was from accumulated depreciation schedules which included fully amortized assets that had not been written off against the accumulated depreciation account.The depreciation tables track by number

Question #21

Reference:

i) Exhibit 4/Tab 2/Schedule 9

a) Does Lakefront have an explanation for the continual increase in the annual loss factor over the 2004 to 2006 period? Please provide the calculation and values for 2002 and 2003.

LUI's Response:

Below are the calculations for 2002 and 2003. 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 due to reduced losses. 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.

			2002	2003
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)		281,232,415	289,976,577
D	Retail kWh (Distributor)		268,295,724	274,880,362
	Unbilled kWh			
E	Retail kWh for Large Use Customer(s) (1% loss)			
F	Net "Retail" kWh (D)-(E)		268,295,724	274,880,362
G	Loss Factor [(C)/(F)]		0.0482	0.0549
H	Distribution Loss Adjustment Factor		**0.0482**	**0.0549**
	Total Utility Loss Adjustment Factor	LAF		
	Supply Facility Loss Factor	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		

b) If the voltage conversion program is expected to reduce losses, why is it not appropriate to use a lower loss factor than one based on an historical three year average?

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 at the present time to cover the actual losses, therefore the loss factor should increase to compensate.

c) What issues or concerns would Lakefront have with maintaining the distribution loss factor at 1.0471 for 2008?

LUI's Response:
If LUI implemented the lower loss factor the power variance account would increase and it would impact our working funds and cash flow. The estimated cost of the difference would negatively impact our cash flow by $55,000 per year.

Question #22

Reference:

i) Exhibit 4/Tab 3/Schedule 3, page 3

a) Is any of the planned smart meter investment for 2008 related to computer software or equipment? If so, how much and please confirm which CCA class(es) it has been assigned to.

LUI's Response:
Computer software is not part of the Smart Meter investment plan.

b) The March 2007 federal budget introduced new CCA classes for computer equipment and buildings (after March 2007). Do any of Lakefront's capital additions in 2007 and 2008 qualify and, if so, please adjust the CCA calculation accordingly.

LUI's Response:
Not applicable

Question #23

Reference:

i) Exhibit 5/Tab 1/Schedule 3, page 1

a) Please explain the basis on which Hydro One Networks bills Lakefront for LV Facilities.

LUI's Response:

Hydro One's Port Hope transformer station supplies LUI's service territories in Cobourg and Colborne with 44KV lines. The LV charges are for Hydro One lines that feed our service territories.

b) Based on the response to part (a), why is the LV Variance Account being allocated to customers based on distribution revenue as opposed to say kWhs?

LUI's Response:

The rate was distributed by revenue in error. We will correct the distribution of LV charges by kWh as per below details in the Method of Recovery sheet, Exhibit 5, Tab 1, Schedule 3, page 1

Account Description	Acct #	Dec31/06 Balance	Apr 30/08 Balance	Allocation Basis	Residential	General Service Less Than	General Service 50 to 2,999 kW	General Service 3,000 to 4,999 kW	Unmetered Scattered Load	Sentinel Lighting	Street Lighting	Totals
LV Variance Account	1550	86,443	91,718	KWh	24,433	11,691	37,102	17,625	196	16	653	91,718

c) Please explain why the outstanding balance in Account 1590 is positive for some customer classes and negative for others.

LUI's Response:

This is a result of the rate riders established by the Board for Regulatory Assets recovery in our 2006 application. Intermediate class had a negative rate rider (0.4697) per kW as well as Sentinel Lighting (0.6404) per kW and Street Lighting (0.3007) per kW

Question #24

Reference:

i) Exhibit 5Tab 1/Schedule 2, page 1

a) For each account, please provide a continuity schedule from December 31, 2004 to December 2006 showing the details of the annual postings to each account.

LUI's Response:

Please see below continuity schedule.

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		Interrogatory PIAC Q24 Ex1
VERSION NUMBER		**PHONE NUMBER**	905-372-2193
Date	16-Jan-08	**(extension)**	

		2005								2006		
Account Description	**Account Number**	**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 - other**	**Closing Principal Balance as of Dec-31-05**	**Opening Interest Amounts as of Jan-1-05**	**Interest Jan-1 to Dec31-05**	**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	1508	$ -	$ 116,965			$ 116,965	$ -	$ 2,642	$ 2,642	$ 116,965	$ 19,147	$ (21,200)
Retail Cost Variance Account - Retail	1518	$ 39,165	$ 20,040	$ (12,096)		$ 47,109		$ 2,839	$ 2,839	$ 47,109	$ 20,040	$ (9,183)
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	
Smart Meter Capital Variance Account	1555										$ (16,040)	
Deferred Payments in Lieu of Taxes	1562	$ 32,840	$ (118,084)			$ (85,244)		$ (2,696)	$ (2,696)	$ (85,244)	$ (17,268)	
PILS 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)
RSVA - Wholesale Market Service Charge	1580	$ 364,734	$ 167,894			$ 532,628	$ 64,403	$ 26,443	$ 90,846	$ 532,628	$ (418,144)	
RSVA - One-time Wholesale Market Service	1582	$ 78,613	$ 15,555			$ 94,168	$ 7,538	$ 5,699	$ 13,237	$ 94,168	$ (333)	
RSVA - Retail Transmission Network Charge	1584	$ (35,558)	$ (264,167)			$ (299,725)	$ 5,745	$ (2,578)	$ 3,167	$ (299,725)	$ (47,937)	
RSVA - Retail Transmission Connection Charge	1586	$ (115,520)	$ 275,326			$ 159,806	$ (1,902)	$ (8,375)	$ (10,277)	$ 159,806	$ 27,595	
RSVA - Power	1588	$ (404,603)	$ 385,512			$ (19,091)	$ 29,921	$ (29,334)	$ 587	$ (19,091)	$ (45,682)	

U:\2008 RATE APPLICATION\Interrogatories\[PIAC Q24 E5 2008-regulatoryasset_recoveryworksheet_v8_20071024.xls]Continuity Schedule

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

Account Description	Account Number	Adjustments during 2006 - other	Transfer of Board-approved amounts to 1590 as per 2006 EDR	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	2007 Projected Interest from Jan 1 to Dec 31, 2007	2008 Projected Interest from Jan 1 to April 30, 2008	Total Claim
Other Regulatory Assets	1508			$ 114,912	$ 2,642	$ 4,709		$ 7,351	$ 5,275	$ 1,758	$ 129,296
Retail Cost Variance Account - Retail	1518		$ (39,165)	$ 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	$ 2,998		$ 86,186		$ 256		$ 256	$ 3,956	$ 1,319	$ 91,717
Smart Meter Capital Variance Account	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
RSVA - Wholesale Market Service Charge	1580	$ (88,543)	$ (364,734)	$ (338,793)	$ 90,846	$ 8,865	$ (99,660)	$ 51	$ (15,551)	$ (5,184)	$ (359,477)
RSVA - One-time Wholesale Market Service	1582		$ (78,613)	$ 15,222	$ 13,237	$ 3,049	$ (15,137)	$ 1,149	$ 699	$ 233	$ 17,303
RSVA - Retail Transmission Network Charge	1584	$ 56,424	$ 173,029	$ (118,209)	$ 3,167	$ (16,616)	$ 1,993	$ (11,456)	$ (5,426)	$ (1,809)	$ (136,900)
RSVA - Retail Transmission Connection Charge	1586	$ 51,059	$ (362,153)	$ (123,693)	$ (10,277)	$ (17,350)	$ (5,698)	$ (33,325)	$ (5,678)	$ (1,893)	$ (164,589)
RSVA - Power	1588	$ 715,636	$ 404,603	$ 1,055,466	$ 587	$ 38,390	$ 9,191	$ 48,168	$ 48,446	$ 16,149	$ 1,168,229
									$ 32,872	$ 10,957	$ 773,655

U:\2008 RATE APPLICATION\Interrogatories\[PIAC Q24 E5 2008-regulatoryasset_recoveryworksheet_v8_20071024.xls]Continuity Schedule

Question #25

Reference:

i) Exhibit 6/Tab 1/Schedule 3

a) Please confirm that the 7.25% long term debt rate is consistent with the OEB policy with respect to allowed debt rates for borrowings from affiliates.

LUI's Response:

The total long-term debt amount for LUI is projected to be $7,684,384. The Municipal component of the long-term debt for LUI is $7,000,000 at 7.25% and the balance of $684,384 is at 6.25% resulting in a total long-term debt rate of 7.161% and Exhibit 6, Tab 1, Schedule 2, page 1 will be corrected to reflect this as per details below.

2008 Test			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%
Total		**15,577,507**	**100.0%**			**7.77%**

Question #26

Reference:

i) Exhibit 7/Tab 1/Schedule 1, page 2

a) Does the deficiency calculation and the 2008 revenue requirement ($4,752,287) include: a) the recovery of LV Charges or b) a recognition of the transformer allowance discount paid to certain GS customers? If yes, please indicate how these items are accounted for.

LUI's Response:

LV and Transformer Allowance were recognized in the revenue requirement. The chart below demonstrates the usage rates before adjustment of these items and after.

Customer Class	Before Adjustment			Transformer Allowance Impact			Low Voltage Charges		Adjusted Rates		Fixed
	Usage Rate	per	Total $	Load	Rate Δ	Total $	Load	Rate Δ	Usage	per	Charge
Residential	0.0136	kWh	$ -	77,241,202	0	$ 101,285	77,241,202	0.0013	0.0149	kWh	11.43576
General Service Less Than 50 kW	0.0112	kWh	$ -	36,960,206	0	$ 44,109	36,960,206	0.0012	0.0124	kWh	29.07725
General Service 50 to 2,999 kW	3.5135	kW	$ 106,625	270,520	0.394149	$ 130,026	270,520	0.4807	4.3883	kW	238.6486
General Service 3,000 to 4,999 kW	2.2336	kW	$ 71,455	123,329	0.579384	$ 67,897	123,329	0.5505	3.3636	kW	6567.378
Street Lighting	1.6354	kW	$ -	5,335	0	$ 1,955	5,335	0.3665	2.0020	kW	0.259348
Sentinel Lighting	8.5719	kW	$ -	98	0	$ 37	98	0.3710	8.9428	kW	3.475646
Unmetered Scattered Load	0.0346	kWh	$ -	620,588	0	$ 887	620,588	0.0014	0.0361	kWh	15.19612
TOTAL			$ 178,080			$ 346,196					

b) If not, please indicate where in Exhibit 9 recovery of the "costs" associated with these items is discussed.

LUI's Response:

Please refer to Q# 26a

c) Please confirm that (as a result of the 2006 EDR) Lakefront's currently approved distribution rates include an allowance for LV charges.

LUI's Response:

LUI's 2006 Rates includes allowance for LV charges with the exception of Unmetered Scattered Load (USL) class. In the 2006 EDR model, there was an error which resulted in a miscalculation and an over-allocation of LV charges to the USL class. As a result of this, Board staff advised LUI to remove the rate rider for the USL class and that the loss in revenue will be captured in the variance account for true-up at next rebasing.

d) If the response to (c) is yes, are the revenues from this allowance posted to the LV Charge deferral account? If not, why not?

LUI's Response:

Yes, they are posted.

Question #27

Reference:
i) Exhibit 8/Tab 1/Schedule 2

a) Please explain why $80,408 spending for CDM is directly allocated to the residential customer class. What is the purpose of the expense that makes it directly attributable to residential customers.

LUI's Response:
The $80,408 in CDM expenses relate to System Optimization work that LUI is conducting in a residential section of its territory.

b) Do the revenue to cost ratios resulting from the Cost Allocation Informational filing reflect any CDM expense directly allocated to the Residential Class in 2006? If so, how much? Also, if so, why is it appropriate to treat the 2008 spending as a separate adjustment?

LUI's Response:
The Cost Allocation Informational filing does not reflect any CDM expense.

c) Please demonstrate how a proposed allocation of 44.35% of 2008 revenue requirement (plus the directly allocated CDM) results in a revenue to cost ratio of 111.84% for the residential class.

LUI's Response:
Residential revenues in the Cost Allocation filing compare with total revenues is 40.50%. Therefore, $2,147,948 residential revenue (which includes the directly allocated CDM), divided by the *(40.50% multiplied by $4,742,279 {total revenues}***) would be equal to the 111.84% for the residential class.**

d) Please confirm whether the column titled "Proportion of Revenue at Existing Rates" is based on: a) 2007 billing quantities and rates or b) 2008 billing quantities and 2007 approved rates. If the former, please redo the column and the balance of the Table using 2008 billing quantities and 2007 approved rates.

LUI's Response:
The "Proportion of Revenue at Existing Rates" is based on 2008 billing quantities and 2007 approved rates.

e) Please explain the concerns Lakefront has regarding the Cost Allocation Informational filing results for Street Lights, Sentinel Lights and USL.

LUI's Response:
LUI has concerns on the Cost Allocation output, due to the fact that in the 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 Regulatory Interest. We also believe that allocation of expenses and other items, such as net income and revenue requirements were done based on number of connections rather than number of accounts which further inflated the figures for Street Light 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.

f) It is understandable that concerns about the results could lead to Lakefront not wanting to aggressively move certain customer class' revenue to cost ratios towards 100%. However, why for these three classes, are the revenue to cost ratios proposed for 2008 being allowed to move "away" from 100%?

LUI's Response:
As mentioned above in Q# 27e, miscellaneous revenue allocation to Street Lights is $53,338 and the actual distribution revenue is $8,737. In our movement of Street Light revenue to cost ratios for example, the "true" distribution revenue for Street Light in Exhibit 8, Tab 1, Schedule 2 page 5, is not $62,075 but rather the $8,737 after the $53,338 is adjusted. Therefore the 'true" revenue to cost ratio for this class is more in the amount of 0.22% range rather than 12.86%. LUI is moving the $8,737 "true" distribution revenue up to $17,249 and the 'true" 0.22% revenue to cost ratio up to 0.37%.

The same scenario holds true for Sentinel Lights and Unmetered Scattered Load classes.

Question #28

Reference:

i) Exhibit 9/Tab 1/Schedule 1, pages 3-4

a) On November 28, 2007 the OEB issued a Report titled: "Application of Cost Allocation for Electricity Distributors". In this report (pages 12-13) the Board set an upper bound on Monthly Service Charges equal to 120% of "avoided costs plus allocated customer costs". In light of this, does Lakefront still consider it appropriate to propose a monthly service charge for residential customers of $11.44 which is well above this maximum (i.e., $8.24 * 1.20% = $9.89). If so why? If not, will Lakefront change its proposed rate design for residential customers?

LUI's Response:

As per our concerns about the Cost Allocation as noted above in Q#27e and f, LUI is retaining the same level of existing rates split (51.19% fix and 48.81% variable for Residential), as at our existing rate. The existing fixed charge is $9.52 and with our new revenue requirement, the figure will be $11.44 at the same percentage splits.

b) Please provide the details regarding revenues by customer class (e.g., rates used, billing parameters used, revenues for fixed and variable) that support the fixed variable splits used to establish the currently proposed monthly service charges. Please confirm whether or not the rates used included the 2007 Smart Meter adder.

LUI's Response:

Revenues for fixed and variable including Smart Meter adder:

ClassName	Fixed	Variable	Grand Total	Fixed	Variable
Residential	915,291	872,826	1,788,116	51.19%	48.81%
General Service Less Than 50 kW	323,448	358,514	681,962	47.43%	52.57%
General Service 50 to 2,999 kW	306,019	799,739	1,105,758	27.68%	72.32%
General Service 3,000 to 4,999 kW	42,297	73,923	116,220	36.39%	63.61%
Street Lighting	4,930	5,046	9,976	49.42%	50.58%
Sentinel Lighting	1,378	481	1,859	74.13%	25.87%
Unmetered Scattered Load	10,608	15,825	26,433	40.13%	59.87%
Grand Total	1,603,971	2,126,354	3,730,325	43.00%	57.00%

	Customers	Projected Consumption	Consumption	Distribution Revenues
	(Year-End)	(kWh)	(KW)	($)
Residential	7,896	76,122,882	-	1,788,116
General Service Less Than 50 kW	1,059	36,428,118	-	681,962
General Service 50 to 2,999 kW	129	119,139,065	274,780	1,105,758
General Service 3,000 to 4,999 kW	2	55,719,421	123,329	116,220
Unmetered Scattered Load	79	620,588	-	9,976
Sentinel Lighting	57	48,575	97	1,859
Street Lighting	2,719	2,047,875	5,290	26,433
TOTAL	**11,941**	**290,126,524**	**403,496**	**3,730,325**

c) Please provide a schedule setting out the derivation of the proposed "variable" distribution rates for each customer class.

LUI's Response:
Please see below tables

Customer Class	Per Cost Allocation		Existing Fixed/Variable Split		Application		
	Minimum	Maximum	Existing Rate	with new Rev. Req	Proposed Fixed Rate	* Resulting Usage Rate	per
Residential	$2.16	$8.24	$9.52	$11.44	**$11.44**	0.0136	kWh
General Service Less Than 50	$6.39	$14.39	$25.08	$29.08	**$29.08**	0.0112	kWh
General Service 50 to 2,999 k	$21.43	$33.94	$200.80	$238.65	**$238.65**	3.5135	kW
General Service 3,000 to 4,99	$86.39	$182.24	$1,762.37	$6,567.38	**$6,567.38**	2.2336	kW
Street Lighting	$0.01	$14.93	$0.15	$0.26	**$0.26**	1.6354	kW
Sentinel Lighting	$0.00	$14.90	$1.98	$3.48	**$3.48**	8.5719	kW
Unmetered Scattered Load	$9.66	$25.62	$11.19	$15.20	**$15.20**	0.0346	kWh

Customer Class	Application		Existing Rates		Cost Allocation Min	
	Fixed %	Variable %	Fixed %	Variable %	Fixed %	Variable %
Residential	51.19%	48.81%	51.19%	48.81%	9.66%	90.34%
General Service Less Than 50	47.43%	52.57%	47.43%	52.57%	10.43%	89.57%
General Service 50 to 2,999 k	27.68%	72.32%	27.68%	72.32%	2.49%	97.51%
General Service 3,000 to 4,99	36.39%	63.61%	36.39%	63.61%	0.48%	99.52%
Street Lighting	49.42%	50.58%	49.42%	50.58%	2.57%	97.43%
Sentinel Lighting	74.13%	25.87%	74.13%	25.87%	0.00%	100.00%
Unmetered Scattered Load	40.13%	59.87%	40.13%	59.87%	25.51%	74.49%

d) With respect to page 4, what is the projected "cost" of the transformer ownership allowance for 2008 and how much of the allowance is paid to each customer class? How is the "cost" of the transformer ownership allowance discount recovered in Lakefront's Application?

LUI's Response:
Please see below table for the two customer classes paid:

Customer Class		Transformer Allowance Impact		
	per	Total $	Load	Rate Δ
Residential	kWh	0	77,241,202	$0.0000
General Service Less Than 50 kW	kWh	0	36,960,206	$0.0000
General Service 50 to 2,999 kW	kW	106,625	270,520	$0.3941
General Service 3,000 to 4,999 kW	kW	71,455	123,329	$0.5794
Street Lighting	kW	0	5,335	$0.0000
Sentinel Lighting	kW	0	98	$0.0000
Unmetered Scattered Load	kWh	0	620,588	$0.0000
TOTAL		178,080		

e) Is there any provision in Lakefront's proposed rates for recovery of LV Charges from Hydro One Networks? What are the projected 2008 LV Charges from Hydro One Networks?

LUI's Response:
Please see table below with projected 2008 LV Charges from Hydro One

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

f) Given the reduction in Wholesale transmission rates for 2008, will Lakefront be proposing a reduction in its Retail Transmission rates? If not, why not? If yes, please provide the proposed rates and supporting schedules indicating how they were determined.

LUI's Response:
The OEB approved the 2008 transmission rate after LUI filed its application. Any variance we anticipated will be captured in the appropriate variance account and true-up at next rebasing. If the Board decides that LUI should calculate and bill the new rates, LUI will comply.

Question #29

Reference:

i) Exhibit 9/Tab 1/Schedule 7

a) In the text Lakefront indicates that is has “concern on the Revenue-to-Cost Ratios” for each of the customer classes. Please outline what these concerns are, particularly as they apply to the Residential ratio.

LUI’s Response:

LUI has concerns on the Cost Allocation output, due to the fact that in the 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 Regulatory Interest. We also believe that allocation of expenses and other items, such as net income and revenue requirements were incorrect which distorted the other classes figures. LUI is planning to redo the Cost Allocation Study in 2008 due to changes in customer data.

b) If Lakefront’s proposal is to maintain the existing fixed/variable split, why aren’t the 2008 percentage increases in the fixed and variable portions of the Residential distribution charges for a 750 kWh customer the same?

LUI’s Response:

The percentage changes for a 750 kWh customer is different due to changes in the Regulatory Asset rate adder component changing.

Question #30

Reference:

i) Exhibit 9/Tab 1/Schedule 9

a) Based on a recent 12 consecutive months of actual billing data, please indicate the percentage of total residential customers that:

- Consume less than 100 kWh per month
- Consume 100 -> 250 kWh per month
- Consume 250 -> 500 kWh per month
- Consume 500 -> 750 kWh per month

LUI's Response:

- **Consume less than 100 kWh per month = 0.8%**
- **Consume 100 -> 250 kWh per month = 1.2%**
- **Consume 250 -> 500 kWh per month = 6.0%**
- **Consume 500 -> 750 kWh per month =13.0%**

Consume 750 > kWh per month =79.0%

Question #31

Reference:

i) Exhibit 9/Tab 1/Schedule 8

ii) Exhibit 8/Tab 1/Schedule 2, page 5

a) The total distribution revenue requirement shown in Reference (i) is $5,347,238. Please provide a cross reference to where in the Application the derivation of this "total" can be found. If there is none, please explain the basis for the number.

LUI's Response:

The $5,347,238 is a total of figures from Exhibit 8/Tab 1/Schedule 2, page 5 total base revenue requirement of $4,742,279 plus Regulatory Asset recoveries amount of $694,934 in Exhibit 5, Tab 1, Schedule 3, page 1.

b) Please reconcile the $5,347,238 value for total distribution revenue in Reference (i) with the $4,742,279 value shown in Reference (ii).

LUI's Response:

Please see above answer in Q#31a and Exhibit 5, Tab 1, Schedule 3, page 1.

Question #32

Reference:

i) General

a) Please provide copies of all Board Decisions pertaining to Barrie's rates issued since December 31, 2004.

LUI's Response:

We believe you are referring to Lakefront Utilities Inc. and attached as Appendix (Vi) are all Board Decisions issued to LUI since December 31, 2004.

Question #33

Reference:

i) Exhibit 9/Tab 1/Schedule 4 and Schedule 6

a) If not provided in response to Question #32, please provide a copy of Lakefront's complete approved 2007 rate schedule.

LUI's Response:

LUI 2007 rate schedule is included in Question#32.

b) Please provide a copy of Lakefront's proposed 2008 rate schedule, including all items for which it is seeking Board approval (e.g. specific charges, loss factors, etc.).

LUI's Response

Please see copy of LUI' proposed 2008 rate schedule below:

Lakefront Utilities Inc.
Rates and Charges

		2007	2008
Residential			
Service Charge	**$**	9.52	11.44
Distribution Volumetric Rate	**$/kWh**	0.0113	0.0149
Regulatory Asset Recovery	**$/kWh**	0.0059	0.0049
General Service Less Than 50kW			
Service Charge	**$**	25.08	29.08
Distribution Volumetric Rate	**$/kWh**	0.0097	0.0124
Regulatory Asset Recovery	**$/kWh**	0.0013	0.0021
General Service 50 to 2,999 kW			
Service Charge	**$**	200.80	238.65
Distribution Volumetric Rate	**$/kW**	2.9563	4.3883
Regulatory Asset Recovery	**$/kW**	0.3756	0.7422
General Service 3,000 to 4,999 kW			
Service Charge	**$**	1762.37	6567.38
Distribution Volumetric Rate	**$/kW**	0.5994	3.3636
Regulatory Asset Recovery	**$/kW**	-0.4697	0.2804
Street Lighting			
Service Charge	**$**	0.15	0.26
Distribution Volumetric Rate	**$/kW**	0.9459	2.0020
Regulatory Asset Recovery	**$/kW**	-0.3007	0.2962
Sentinel Lighting			
Service Charge	**$**	1.98	3.48
Distribution Volumetric Rate	**$/kW**	4.8832	9.9428
Regulatory Asset Recovery	**$/kW**	-0.6404	1.8857
Unmetered Scattered Load			
Service Charge	**$**	11.19	15.2
Distribution Volumetric Rate	**$/kWh**	0.0255	0.0361
Regulatory Asset Recovery	**$/kWh**	0.0050	0.0047
Distribution Loss Factor	**%**	1.0471	1.0541

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 occpancy	$	30.00
Special Meter Reads	$	30.00
Collection of account charge - no disconnection	$	30.00
Collection of account charge - no disconnection - after regular hours	$	165.00
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	$	185.00
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

SHEET 1 - Regulatory Assets - Continuity Schedule

APPENDIX (i)

NAME OF UTILITY	Lakefront Utilities Inc.	**LICENCE NUM**	ED-2002-0545
NAME OF CONTACT	Dereck Paul	**DOCID NUMBI**	EB-2007-0761
E-mail Address	dpaul@lusi.on.ca		**Response to Interrogatory #PIAC Q2 a EX 1**
VERSION NUMBER	v2.0	**PHONE NUMB**	905-372-2193
Date	16-Jan-08	**(extension)**	

		2004						2005						2006										
Account Description	**Account Number**	**Opening Principal Amounts as of Jan-1-04**	**Transactions (additions) during 2004, excluding interest and adjustments**	**Closing Principal Balance as of Dec-31-04**	**Opening Interest Amounts as of Jan-1-04**	**Interest Jan-1 to Dec31-04**	**Closing Interest Amounts as of Dec-31-04**	**Opening Principal Amounts as of Jan-1-05**	**Transactions (additions) during 2005, excluding interest and adjustments**	**Closing Principal Balance as of Dec-31-05**	**Opening Interest Amounts as of Jan-1-05**	**Interest Jan-1 to Dec31-05**	**Closing Interest Amounts as of Dec-31-05**	**Opening Principal Amounts as of Jan-1-06**	**Transactions (additions) during 2006, excluding interest and adjustments**	**Adjustments during 2006 - other**	**Transfer of Board-approved amounts to 1590 as per 2006 EDR**	**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**
RSVA - Wholesale Market Service Charge	1580	$ 374,433	$ (9,699)	$ 364,734	$ 37,704	$ 26,699	$ 64,403	$ 364,734	$ 167,894	$ 532,628	$ 64,403	$ 26,443	$ 90,846	$ 532,628	$ (418,144)	$ (88,543)	$ (364,734)	$ (338,793)	$ 90,846	$ 8,865	$ (99,660)	$ 51	$ (15,551)	$ (5,184)	$ (359,477)
RSVA - One-time Wholesale Market Service	1582	$ 65,445	$ 13,168	$ 78,613	$ 2,293	$ 5,245	$ 7,538	$ 78,613	$ 15,555	$ 94,168	$ 7,538	$ 5,699	$ 13,237	$ 94,168	$ (333)		$ (78,613)	$ 15,222	$ 13,237	$ 3,049	$ (15,137)	$ 1,149	$ 699	$ 233	$ 17,303
RSVA - Retail Transmission Network Charge	1584	$ 16,590	$ (52,148)	$ (35,558)	$ 7,780	$ (2,035)	$ 5,745	$ (35,558)	$ (264,167)	$ (299,725)	$ 5,745	$ (2,578)	$ 3,167	$ (299,725)	$ (47,937)	$ 56,424	$ 173,029	$ (118,209)	$ 3,167	$ (16,616)	$ 1,993	$ (11,456)	$ (5,426)	$ (1,809)	$ (136,900)
RSVA - Retail Transmission Connection Charg	1586	$ (31,292)	$ (84,228)	$ (115,520)	$ 4,217	$ (6,119)	$ (1,902)	$ (115,520)	$ 275,326	$ 159,806	$ (1,902)	$ (8,375)	$ (10,277)	$ 159,806	$ 27,595	$ 51,059	$ (362,153)	$ (123,693)	$ (10,277)	$ (17,350)	$ (5,698)	$ (33,325)	$ (5,678)	$ (1,893)	$ (164,589)
RSVA - Power (including Global Adjustment)	1588	$ (115,159)	$ (289,444)	$ (404,603)	$ 37,580	$ (7,659)	$ 29,921	$ (404,603)	$ 385,512	$ (19,091)	$ 29,921	$ (29,334)	$ 587	$ (19,091)	$ (45,682)	$ 715,636	$ 404,603	$ 1,055,466	$ 587	$ 38,390	$ 9,191	$ 48,168	$ 48,446	$ 16,149	$ 1,168,229

	Horizon Plastics	**APPENDIX (ii)**								
	838 Darcy Street									
	205427									
	GS 3000-4999 kW									
	763510									
		Summary of Years								
Totals		**2004**	**2005**	**2006**	**2007**	**Apr-04**	**May-04**	**Jun-04**	**Jul-04**	**Aug-04**
$ 5,203,224.17	Billed Cost of Power:	1,116,759.66	1,717,080.12	1,522,082.65	$ 847,301.74	$102,846.40	$138,842.03	$144,083.27	$137,481.18	$129,864.28
$ 4,266,903.81	Correct Cost of Power:	992,281.32	1,448,209.30	1,183,425.83	$ 642,987.36	$91,296.89	$121,676.26	$127,497.28	$121,487.54	$115,545.23
$ 936,320.36	**Difference (RSVA 1588)**	**$ 124,478.34**	**$ 268,870.82**	**$ 338,656.82**	**$ 204,314.38**	**$11,549.51**	**$17,165.77**	**$16,585.99**	**$15,993.64**	**$14,319.05**
$ 609,359.17	Billed Wholesale Charge:	143,457.15	158,171.69	199,854.85	$ 107,875.48	$13,699.30	$17,514.15	$18,798.35	$18,591.10	$18,556.32
$ 498,560.61	Correct Wholesale Charge:	127,426.02	133,971.92	155,222.87	$ 81,939.80	$12,177.07	$15,356.37	$16,654.78	$16,420.50	$16,461.23
$ 110,798.56	**Difference (RSVA 1580)**	**$ 16,031.13**	**$ 24,199.78**	**$ 44,631.98**	**$ 25,935.68**	**$1,522.24**	**$2,157.78**	**$2,143.56**	**$2,170.60**	**$2,095.09**
$ 119,261.39	Billed Distribution Volumetric Rate	70,588.38	32,992.19	11,179.57	$ 4,501.25	$7,305.67	$8,184.83	$8,986.56	$8,815.83	$8,342.71
$ 107,103.36	**Correct Distribution Volumetric Rate**	66,151.19	29,060.44	8,620.30	$ 3,271.43	$6,767.00	$7,718.86	$8,252.58	$8,194.12	$7,843.15
$ 12,158.03	**Difference (Incl LV RSVA 1550)**	**$ 4,437.19**	**$ 3,931.75**	**$ 2,559.27**	**$ 1,229.82**	**$538.68**	**$465.98**	**$733.99**	**$621.71**	**$499.56**
$ 435,118.52	Billed Network Service	102,700.50	122,745.13	137,138.31	$ 72,534.59	$10,512.47	$11,777.54	$12,898.77	$12,685.51	$13,248.46
$ 358,874.01	Correct Network Service	94,920.81	105,864.66	105,373.85	$ 52,714.69	$9,298.62	$11,107.02	$11,814.16	$11,790.91	$11,598.37
$ 76,244.51	**Difference (RSVA 1584)**	**$ 7,779.69**	**$ 16,880.47**	**$ 31,764.46**	**$ 19,819.89**	**$1,213.86**	**$670.51**	**$1,084.62**	**$894.60**	**$1,650.09**
$ 379,190.85	**Billed Line & Transformation Connection**	90,609.10	110,128.01	117,711.01	$ 60,742.72	$9,230.41	$10,341.19	$11,354.14	$11,138.43	$11,964.36
$ 311,534.24	**Correct Line & Transformation Connection**	84,209.93	93,216.37	89,963.01	$ 44,144.93	$8,549.81	$9,752.45	$10,426.78	$10,352.93	$10,540.20
$ 67,656.61	**Difference (RSVA 1586)**	**$ 6,399.18**	**$ 16,911.64**	**$ 27,748.00**	**$ 16,597.80**	**$680.60**	**$588.74**	**$927.36**	**$785.50**	**$1,424.16**

Sep-04	Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05
$128,031.09	$113,761.89	$116,850.12	$104,999.40	$149,000.09	$125,543.35	$157,135.04	$118,016.91	$169,213.24	$217,597.91	$141,165.76	$166,892.47	$125,418.85	$115,712.94
$110,352.20	$100,571.32	$104,746.29	$99,108.31	$130,291.32	$107,585.05	$147,119.15	$115,106.55	$141,693.42	$170,796.56	$120,323.64	$131,622.51	$101,117.17	$95,161.43
$17,678.89	**$13,190.57**	**$12,103.83**	**$5,891.09**	**$18,708.77**	**$17,958.30**	**$10,015.89**	**$2,910.36**	**$27,519.82**	**$46,801.35**	**$20,842.12**	**$35,269.96**	**$24,301.68**	**$20,551.51**
$15,890.79	$14,242.92	$14,006.74	$12,157.47	$15,449.46	$15,611.40	$16,198.14	$11,653.58	$19,676.33	$20,106.22	$10,782.65	$12,388.31	$7,926.98	$8,816.87
$13,685.53	$12,595.16	$12,577.54	$11,497.84	$13,548.56	$13,378.83	$15,169.09	$11,366.60	$16,450.47	$15,772.14	$9,156.46	$9,709.30	$6,383.65	$7,290.27
$2,205.27	**$1,647.76**	**$1,429.20**	**$659.63**	**$1,900.91**	**$2,232.57**	**$1,029.05**	**$286.98**	**$3,225.86**	**$4,334.07**	**$1,626.19**	**$2,679.01**	**$1,543.33**	**$1,526.60**
$7,265.76	$6,828.36	$7,442.93	$7,415.72	$7,320.46	$7,445.59	$7,768.60	$1,033.10	$1,626.29	$1,667.45	$1,160.46	$1,247.44	$910.41	$903.19
$6,789.61	$6,365.95	$7,023.66	$7,196.26	$6,656.14	$6,714.84	$7,056.84	$1,192.45	$1,302.27	$1,301.28	$999.58	$985.08	$714.00	$677.49
$476.14	**$462.41**	**$419.27**	**$219.46**	**$664.32**	**$730.75**	**$711.76**	**-$159.34**	**$324.02**	**$366.17**	**$160.89**	**$262.36**	**$196.41**	**$225.70**
$10,455.03	$9,825.64	$10,700.30	$10,596.77	$10,533.74	$10,713.81	$8,554.41	$9,187.32	$14,462.52	$14,828.50	$10,319.92	$11,093.36	$8,096.20	$8,032.02
$9,769.89	$9,160.26	$10,106.68	$10,274.90	$9,577.83	$9,632.41	$9,885.22	$10,604.34	$11,581.00	$11,572.15	$8,889.17	$8,760.25	$6,349.55	$6,024.90
$685.14	**$665.38**	**$593.63**	**$321.86**	**$955.91**	**$1,081.40**	**-$1,330.81**	**-$1,417.03**	**$2,881.52**	**$3,256.34**	**$1,430.74**	**$2,333.11**	**$1,746.64**	**$2,007.13**
$9,179.97	$8,627.34	$9,403.83	$9,369.44	$9,249.08	$9,407.19	$9,815.29	$8,066.86	$12,698.72	$13,020.06	$9,061.34	$9,740.45	$7,108.81	$7,052.47
$8,578.39	$8,043.11	$8,874.10	$9,092.17	$8,409.75	$8,483.92	$8,916.02	$9,311.07	$10,168.62	$10,160.85	$7,805.08	$7,691.88	$5,575.18	$5,290.12
$601.59	**$584.23**	**$529.73**	**$277.27**	**$839.33**	**$923.27**	**$899.28**	**-$1,244.21**	**$2,530.10**	**$2,859.21**	**$1,256.25**	**$2,048.57**	**$1,533.63**	**$1,762.35**

Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06
$107,947.13	$123,436.42	$138,992.92	$134,423.01	$181,348.55	$149,210.68	$144,575.21	$150,464.55	$113,691.64	$128,798.97	$75,306.56	$84,360.21	$130,154.57	$90,755.78
$85,095.01	$102,297.49	$111,475.78	$106,590.11	$142,168.79	$117,382.84	$114,531.09	$116,125.76	$89,167.67	$99,261.20	$58,962.11	$64,020.03	$95,860.03	$67,880.42
$22,852.12	**$21,138.93**	**$27,517.14**	**$27,832.90**	**$39,179.76**	**$31,827.84**	**$30,044.12**	**$34,338.79**	**$24,523.97**	**$29,537.77**	**$16,344.45**	**$20,340.18**	**$34,294.54**	**$22,875.36**
$11,482.95	$8,078.81	$15,051.19	$17,169.81	$22,865.88	$21,217.06	$19,064.73	$20,203.58	$14,333.70	$15,747.46	$12,987.14	$12,640.98	$16,305.81	$12,267.50
$9,015.96	$6,730.61	$12,126.71	$13,608.49	$17,912.90	$16,641.63	$15,022.68	$15,556.26	$11,231.02	$12,169.11	$10,133.54	$9,629.27	$11,972.78	$9,218.47
$2,466.99	**$1,348.20**	**$2,924.48**	**$3,561.32**	**$4,952.98**	**$4,575.43**	**$4,042.05**	**$4,647.32**	**$3,102.68**	**$3,578.35**	**$2,853.60**	**$3,011.71**	**$4,333.03**	**$3,049.03**
$940.98	$968.22	$1,365.98	$1,573.62	$1,594.59	$1,463.95	$712.11	$750.83	$593.39	$718.70	$568.04	$561.48	$608.05	$668.82
$715.46	$745.00	$1,076.11	$1,260.13	$1,258.83	$1,166.43	$539.58	$563.43	$473.98	$535.23	$431.38	$407.03	$429.23	$478.96
$225.51	**$223.22**	**$289.88**	**$313.49**	**$335.77**	**$297.52**	**$172.53**	**$187.41**	**$119.42**	**$183.46**	**$136.66**	**$154.45**	**$178.83**	**$189.86**
$8,368.05	$8,555.29	$12,147.57	$13,994.08	$13,828.92	$12,892.58	$11,339.35	$12,197.53	$9,692.56	$11,739.30	$9,278.50	$9,171.27	$9,932.02	$10,924.62
$6,362.56	$6,625.27	$9,569.73	$11,206.22	$11,194.65	$10,372.99	$8,813.56	$9,203.10	$7,741.98	$8,742.57	$7,046.26	$6,648.43	$7,011.04	$7,823.34
$2,005.49	**$1,930.02**	**$2,577.84**	**$2,787.86**	**$2,634.27**	**$2,519.59**	**$2,525.79**	**$2,994.44**	**$1,950.59**	**$2,996.73**	**$2,232.24**	**$2,522.84**	**$2,920.98**	**$3,101.28**
$7,347.51	$7,560.24	$10,666.09	$12,287.41	$12,451.18	$11,431.08	$9,740.68	$10,270.44	$8,116.86	$9,830.86	$7,770.11	$7,680.31	$8,317.38	$9,148.62
$5,586.60	$5,817.28	$8,402.63	$9,839.54	$9,829.38	$9,107.94	$7,380.75	$7,706.96	$6,483.37	$7,321.30	$5,900.76	$5,567.60	$5,871.26	$6,551.51
$1,760.90	**$1,742.96**	**$2,263.46**	**$2,447.86**	**$2,621.80**	**$2,323.14**	**$2,359.93**	**$2,563.47**	**$1,633.48**	**$2,509.56**	**$1,869.35**	**$2,112.71**	**$2,446.12**	**$2,597.11**

APPENDIX (iii)
VECC Question # 4a

MANAGEMENT, OPERATIONS AND MAINTENANCE AGREEMENT

THIS AGREEMENT made as of May 1st, 2007.

BETWEEN:

LAKEFRONT UTILITY SERVICES INC., a corporation incorporated under the laws of the Province of Ontario (hereinafter called the "**Service Provider**"),

OF THE FIRST PART;

- and –

LAKEFRONT UTILITIES INC. (hereinafter called the "**Client**"),

OF THE SECOND PART.

RECITALS

1. Client and the Service Provider have agreed to enter into this Agreement pursuant to which the Service Provider will assume responsibility for the services listed herein.

   NOW THEREFORE THIS AGREEMENT WITNESSES THAT, in consideration of the covenants and agreements herein contained, the parties hereto agree as follows:

ARTICLE ONE

DEFINITIONS AND SCHEDULES

1.1 Definitions

In this Agreement, unless something in the subject matter is inconsistent therewith, all capitalized terms shall have the meanings set forth below:

"**Affiliate Relationships Code"** means the Affiliate Relationships Code of the Ontario Energy Board as the same may be amended from time to time.

"Agreement" means this Agreement and all amendments made hereto in accordance with the provisions hereof.

"Business" means providing a selected range of energy services, telecommunications and products, as well as business activities incidental thereto.

"Business Day" means a day other than Saturday, Sunday or a legal holiday.

"Event of Default" means any of the events described in Section 6.1.

"**Force Majeure"** means a cause which is unavoidable or beyond the reasonable control of a party hereto and which by the exercise of due diligence such party is unable to prevent or overcome, including, without limitation, acts of God, acts of public enemy, war, hostilities, invasion, insurrection, riot, the order of any competent civil or military government, explosion, fire, strikes, lockouts, labour disputes, malicious acts, vandalism, failure of equipment beyond the reasonable control of a party hereto, accident to any facilities, storms, or other adverse weather conditions, or other causes of similar nature which wholly or partially prevent the parties or either of them from carrying out the terms of this Agreement (other than for the payment of monies due hereunder); provided that either party shall have the right to determine and settle any strike, lockout and labour dispute in which that party may be involved in its sole discretion and provided further that Force Majeure shall exclude lack of funds or economic hardship.

"Insolvent" means, in relation to any Person, being insolvent, bankrupt, making a proposal under the *Bankruptcy and Insolvency Act* (Canada) or having a trustee or receiver or manager appointed in respect of its assets.

"Prudent Industry Practice" means any of the practices, methods and acts which, in the exercise of reasonable judgment in the light of the facts known to the Service Provider, at the time that a decision was made, could reasonably have been expected to accomplish the desired result at a reasonable cost, consistent with applicable laws, licensing and regulatory considerations, environmental considerations, reliability, safety and expedition. Prudent Industry Practice is not intended to be limited to the optimum practice, method or act, to the exclusion of all others, but rather to be a spectrum of possible practices, methods or acts employed by owners and operators of businesses similar in size, type and operational characteristics to Client's business, and having due regard for applicable industry, safety and maintenance codes and standards, manufacturers' warranties, and applicable laws and shall, in any event, evidence the degree of care, diligence and skill that a reasonable prudent advisor and manager having responsibility for the management of a similar business would exercise in comparable circumstances.

"Term" shall mean the period from May 1, 2007 to the fifth anniversary thereof, or such earlier date as this Agreement may be terminated in accordance with its terms.

1.2 Headings

The division of this Agreement into Articles, Sections, paragraphs and subparagraphs and the insertion of headings are for convenience of reference only and shall not affect the construction of interpretation of this Agreement. The Terms "hereof", "hereunder" and similar expressions refer to this Agreement and not to any particular Article, Section or other portion hereof and include any agreement supplemental hereto. Unless something in the subject matter or context is inconsistent therewith, references herein to Articles and Sections are to Articles and Sections of this Agreement.

1.3 Interpretation

Words importing the singular number only shall include the plural and vice versa, words importing gender shall include all genders. Where the work "including" or "includes" is used in this Agreement it means "including without limitation" or "Includes without Limitation", respectively. Any reference to any Document shall include a reference to any schedule, amendment of supplement thereto or any agreement in replacement thereof, all as permitted under the Documents.

1.4 Accounting Principles

Wherever in this Agreement reference is made to generally accepted accounting principles, such reference shall be deemed to be to the generally accepted accounting principles from time to time approved by the Canadian Institute of Chartered Accountants, or any successor institute, applicable as at the date on which such calculation is made or required to be made in accordance with generally accepted accounting principles. Where the charter or amount of any asset or liability or item of revenue or expense is required to be determined, or any consolidation or other accounting computation is required to be made for the purpose of this Agreement or any document, such determination or calculation shall, to the extent applicable and except as otherwise specified herein or as otherwise agreed in writing by the parties, be made in accordance with generally accepted accounting principles applied on a consistent basis.

1.5 Funds

All dollar amounts referred to in this agreement are in lawful money of Canada.

ARTICLE TWO

THE SERVICE PROVIDER'S FUNCTIONS AND POWERS

2.1 Appointment of the Service Provider

Client hereby appoints the Service Provider and the Service Provider hereby accepts its responsibility for all aspects of the operation, maintenance, management and management of the Business in accordance with Prudent Industry Practice and the terms of this Agreement throughout the Term including without limitation, providing all necessary staff to operate the Business.

2.2 Services Provided

(1) The Service Provider shall have authority during the Term to manage, control, administer and operate the Business in accordance with Prudent Industry Practice, subject to the overall responsibility for management of Client by its senior officers ("Client's Management") and the Client's Board of Directors ("Client's Directors") and subject to and limited by the provisions of this Agreement.

Without limiting the generality of the foregoing, the Service Provider shall be vested with the following powers which it shall exercise on behalf of the Client:

(a) to report to Client's Management and the Client's Directors with respect to the business and affairs of the Client and the business as may be requested from time to time by Client's Management and the Client's Directors;

(b) to provide all administrative services for business of Client including accounting and bookkeeping services; and

(c) to negotiate, execute, amend, administer, perform and carry out the terms of all agreements and commitments, the performance of which by or on behalf of Client in respect of the Business and the Business is necessary or advisable.

(2) Without limiting the generality of the foregoing the Service Provider shall provide or arrange for all of the operations and maintenance services necessary to prudently and efficiently operate and maintain Client's Business, including but not limited to:

(a) co-ordinate the purchase and sale of electricity under applicable contracts and pay on behalf of Client and collect all amounts payable and receivable thereunder;

(b) operate and maintain the Business in accordance with Prudent Industry Practice, applicable laws and all Client's agreements, to provide maintenance for Client's facilities in the most cost-effective manner to prevent deterioration beyond normal wear and tear; provided that such efforts shall be necessarily limited by the operating life, capacity and maintenance requirements of the Client's facilities and by the requirements of all applicable laws;

(c) use all reasonable care necessary to keep Client's facilities clean, orderly and free from debris, rubbish or waste to the extent consistent with the operation of the Business;

(d) use all reasonable care not to generate, store, transport, accumulate, dispose, discharge or release any hazardous substance on, in or from any property in connection with Client's facilities, except in compliance with all applicable environmental laws and regulations;

(e) assist Client in obtaining and maintaining all necessary regulatory and operational approvals including those required from the Ontario Energy Board and the Independent Electricity Market Operator for the Business and renewals therefore including preparing and submitting all associated applications and filing;

(f) use its reasonable efforts to secure and maintain from vendors, suppliers and subcontractors the best indemnities, warranties and guarantees as may be commercially available in accordance with Prudent Industry Practice regarding supplies, equipment and services purchased for the Business and assist Client in preserving and enforcing such indemnities, warranties or guarantees;

(g) provide administrative services for the Business including:

(i) arrange insurance for the Business and Client consistent with Prudent Industry Practice;

(ii) maintain and preserve equipment maintenance, accounting, management of billing and receivables, banking and other necessary records, reports, documents, data and the like for the Business and Client;

(iii) perform cash management services for the Business and Client;

(iv) on a timely basis prepare financial statements and deliver them to the Client's Directors;

(v) assist in the administration of all agreements to which Client is a party or by which it is bound, including negotiations and communications with third parties in connection therewith; and

(vi) make all banking and financing agreements;

(h) employ, and ensure adequate training and testing of all qualified personnel (duly licensed where required) required for the operation and maintenance of Client's facilities consistent with Prudent Industry Practice;

(i) implement an inventory control system to identify, catalogue and disburse spare parts for the maintenance of Client's facilities and procure, as agent for Client initial and replacement spare parts and refurbish, where practical or economical, spare parts to allow their reuse;

(j) perform for Client such other services as may from time to time be reasonably requested or are reasonably necessary or appropriate in connection with the operation and maintenance of Client facilities;

(k) promptly provide Client with such other information relative to the Business as Client may reasonably request.

2.3 Covenants of the Service Provider

The Service Provider covenants and agrees that in the performance of its services under this Agreement it shall:

(a) perform all services at all times in accordance with Prudent Industry Practice and in compliance with applicable laws and consistent with the principles of the Affiliate Relationships Code;

(b) comply with all instructions of Client's Management and the Client's Directors in relation to the performance of its services under this Agreement. The Directors will have the responsibility to provide governance for the Client and will include but not be limited to the approval of policy, approval of budgets and approval of business plans.

(c) observe and perform or cause to be observed and performed on behalf of Client in every material respect the provisions of (i) the agreements from time to time entered into a connection with the Business, and (ii) all applicable laws including the Affiliate Relationships code;

2.4 No Liability of Service Provider

Notwithstanding any provision of this Agreement, neither Party shall in any circumstances whatsoever be liable hereunder to the other Party for incidental or consequential or punitive damages including, without limitation, loss of profit, sustained or claimed by the other Party. The Service Provider shall have no liability as a result of this Agreement to make or arrange for payments on account of operating expenses of Client or any other expenses relating to this Agreement out of its own funds. The Client accepts that any actions, legal or other, resulting from the performance of services by the Service Provider, shall be the liability of the Client.

ARTICLE THREE

TERM

3.1 Term of Agreement

This Agreement shall be effective as of May 1, 2007 and shall continue in full force and effect until April 30, 2012 unless sooner terminated. This Agreement shall be automatically renewed for successive periods of five years unless either party provides the other with written notice to the contrary at least one hundred and eighty (180) days prior to the end of the then incumbent term. Consideration of continuance of the contract will be brought to the attention of the Service Provider and the Client for consideration one year prior to renewal of the contract.

ARTICLE FOUR

COST OF SERVICES

4.1 Cost of Services

The parties agree, acting reasonably, that the charges for services provided by the Service Provider shall be “at cost”, and that the Client accepts that the Service Provider is a non-profit company and therefore any costs relating to the provision of services are transferred to the Client and that the total employment costs related to the employees providing the services shall be borne by the Client. The Client further agrees that it shall pay its portion of the Service Provider’s Board of Directors and Executive costs.

ARTICLE FIVE

FINANCIAL STATEMENTS, BUDGETS AND RECORDS

5.1 Books and Records

The Service Provider shall keep proper books, records and accounts in which full, true and correct entries in conformity with generally accepted accounting principles and all requirements of applicable laws will be made of all dealings and transactions in relation to the Business and the performance of the Service Provider's services under this Agreement at the Service Provider's head office.

5.2 Examination of Records

The Service Provider shall make available to the Client and its authorized representatives at any time during normal business hours on a Business Day all records, documents or information related to the Business, wherever maintained. The Service Provider shall permit client and its authorized representatives at any time during normal business hours on a Business Day to examine the books, records, drawings, computer-stored data, correspondence, accounting procedures and practices, cost analyses and any other supporting financial data, including invoices, payments or claims and receipts pertaining to the Business maintained by the Service Provider at its head office. Client's examination of records at the Business or at the Service Provider's head office shall be conducted in a manner which will not unduly interfere with the conduct of the Business or of the Service Provider's business in the ordinary course. The Service Provider shall furnish to Client such financial and operating data and other information with respect to the Business as Client shall from time to time reasonably request.

5.3 Confidentiality

The Service Provider shall ensure that, unless required in connection with applicable laws, the books, records, and accounts of Client shall not be made available to any other person. The Client shall ensure, if it comes into possession of, or becomes aware of, any information the Service Provider has obtained relating to a specific consumer, retailer or generator in the process of providing current or prospective electricity distribution service, that it will not use such information for any improper purpose, in compliance with the Affiliate Relationships Code.

ARTICLE SIX

DEFAULT AND TERMINATION

6.1 Events of Default

Each of the parties hereto shall be in default under this Agreement upon the happening or occurrence of any of the following events, each of which shall be deemed to be an Event of Default for the purposes of this Agreement:

(a) the party breaches or fails to observe or perform any of the party's material obligations, covenants, or responsibilities under this agreement, and, within thirty (30) days after notice from the other party specifying the nature of such breach or failure, to the satisfaction of the other party's Management and Directors, the party fails to cure such breach or failure or to take steps to remedy such breach or failure and give reasonable assurances to the other party that such default shall be cured within a period of time satisfactory to the other party's Management and Directors:

(b) the party:

(i) becomes Insolvent;

(ii) is subject to any proceeding, voluntary or involuntary, under the provisions of the *Bankruptcy and Insolvency Act* (Canada), the *Companies Creditors Arrangement Act* (Canada), or any other Act for the benefit of creditors;

(iii) goes into liquidation;

(iv) winds up either voluntarily or under an order of a Court of competent jurisdiction;

(v) makes a general assignment for the benefit of its creditors; or

(vi) otherwise takes any corporate action that acknowledges its Insolvency; or

(c) gross negligence, willful default or fraud by the party in the performance of any of its obligations, covenants, or responsibilities under this Agreement.

6.2 Termination

Upon three occurrences as described in section 6.1(a) within one calendar year, or upon the occurrence of an Event of Default of the party but subject to section 6.3, the other party may without recourse to legal process but without limiting any other rights or remedies which it may have at law or otherwise, terminate this Agreement by delivery of written notice of termination to the party.

6.3 Restriction on Termination during Force Majeure

During the occurrence of an event of Force Majeure, the obligations of the party affected by such event of Force Majeure, to the extent that such obligations cannot be performed as a result of such event of Force Majeure, shall be suspended, and such party shall not be considered to be in default hereunder, for the period of such occurrence except that the occurrence of an event of Force Majeure affecting Client (but not affecting the performance of the Service Provider's obligations hereunder) shall not relieve it of its obligation to make payments to the Service Provider hereunder. The non-performing party shall give the other party prompt written notice of the particulars of the event of Force Majeure and its expected duration, shall continue to furnish regular reports with respect thereto on a timely basis during the continuance of the event of Force Majeure and shall use its best efforts to remedy its inability to perform. The suspension of performance is to be of no greater scope and of no longer duration than is required by the Force Majeure condition. No obligations of either party that arose before the Force Majeure causing the suspension of performance are excused as a result of the Force Majeure.

6.4 Post-Termination Arrangements

In the event of termination of this Agreement;

(a) the Service Provider shall deliver to Client all books, records, accounts, systems and manuals which it has developed and maintained relating to Client. Client's facilities and the Business pursuant to this Agreement;

(b) the parties shall take all steps as may be reasonable required to complete and final accounting between them and Client will pay to Service Provider all fees accrued to date and to provide, if applicable, for the orderly transfer of insurance and completion of any other matter contemplated by this Agreement; and

(c) title to all materials, equipment, supplies, consumables, spare parts and other items purchased or obtained by the Service Provider for the Business shall pass to and vest in Client upon the passage of title from the vendor or supplier thereof and payment or reimbursement of costs by Client.

ARTICLE SEVEN

GENERAL MATTERS

7.1 Governing Law

This Agreement shall be conclusively deemed to be a contract made under, and shall for all purposes be construed and interpreted in accordance with the laws of the Province of Ontario, and the laws of Canada applicable in such Province.

7.2 Benefit of the Agreement

This Agreement shall enure to the benefit of and be binding upon the parties hereto and their respective successors and permitted assigns.

7.3 Severability

Any provision of this Agreement which is prohibited or unenforceable in any jurisdiction shall not invalidate the remaining provisions hereof and any such prohibition or unenforceability in any jurisdiction shall not invalidate or render unenforceable such provisions in any other jurisdiction. In respect of any provision so determined to be unenforceable or invalid, the parties agree to negotiate in good faith to replace the unenforceable or invalid provision with a new provision that is enforceable and valid in order to give effect to the business intent of the original provision to the extend permitted by law and in accordance with the intent of this Agreement.

7.4 Amendments and Waivers

No modification of or amendment to this Agreement shall be valid or binding unless set forth in writing and duly executed by both of the parties hereto and no waiver of any breach of any term or provision of this Agreement shall be effective or binding unless made in writing and signed by the party purporting to give the same and, unless otherwise provided, shall be limited to the specific breach waived.

7.5 Further Assurances

Each of Client and the Service Provider shall from time to time execute and deliver all such further documents and instruments and do all acts and things as the other party may reasonably require to effectively carry out or better evidence or perfect the full intent and meaning of this Agreement.

7.6 Time of the Essence

Time shall be of the essence of this Agreement.

7.7 No Partnership

It is understood and agreed that nothing contained in this Agreement nor any acts of the parties shall be deemed to constitute the Service Provider and Client as partners of each other.

7.8 Dispute Resolution

In the event there is any disagreement between the parties as to the performance or implementation of any provision of this agreement, including the amount of fees to be paid pursuant to Section 4.1, or the provision for termination of the agreement, the issue will be submitted to arbitration pursuant to the *Arbitration Act*.

IN WITNESS WHEREOF this Agreement has been executed by the parties hereto as of the 1st day of May, 2007.

LAKEFRONT UTILITIES INC.

Per: _____

LAKEFRONT UTILITY SERVICES INC.

Per: _____

Lakefront Utilities	9,088
Residential Customer Base	7,873
General Service (<50kW)	1,050
General Service (50kW - 200kW)	112
General Service (>200kW)	53

A P P E N D I X iv (Question 6 d schedule)

OPERATIONS	Rate Filings		2007		2008		2009		2010		2011		2012	
	Capital	Operating	Capital	Operating	Capital	Operating	Capital	Operating	Capital	Operating	Capital	Operating	Capital	Operating
Repair of unsafe meter bases (1%)	2	2	$21,682.89		$21,682.89									
Costs for Detailed Propagation Studies	D	D	$2,106.00											
Smart Meter Network Infrastructure														
AMCD Vendor 5	A	J			$866,815.88	$0.00		$0.00		$0.00		$0.00		$0.00
AMRC Including WAN Costs Vendor 5	B	J			$71,569.10	$6,546.01		$6,574.36		$6,603.41		$6,633.20		$6,663.73
AMCC Vendor 5	F	J			$170,868.70	$17,152.46		$21,764.79		$21,898.37		$22,035.30		$22,175.65
AMI Miscellaneous (Including Labour For Daily Ops) Vendor 5	D	J			$11,598.12	$116,316.00		$119,211.75		$122,179.89		$125,222.24		$128,340.65
Smart Meter Installation Process Vendor 4	C				$107,158.72									
Adaptor Installation Vendor 4	C				$988.39									
Workforce Management System Vendor 4	D				$7,852.68									
Capturing of GPS Coordinates Vendor 4	D				$549.69									
Imaging of All Old Meters Vendor 4	D				$3,586.06									
Delivery of Customer Notification Package Vendor 4	C				$3,429.00									
Meter Seals	C				$2,891.05									
Meter Rings	C				$40,956.57									
Meter Adaptors	C				$9,855.00									
Rent for Space for Meter Inventory and Scrapping Process	C				$25,000.00									
AMI Installation Operational Verification Tools (Temp MDM/R)	D	J			$37,476.60			$37,476.60						
Scrapping Process Separation Costs	D				$9,600.00									
Meter Scrapping/Recycling Process	D				-$8,923.00									
Staff Training and Department Integration	D	K			$15,000.00			$3,000.00						
AMI Warranty Costs (1% Failure Rate)	A				$9,825.47		$9,825.47		$9,825.47		$9,825.47		$9,825.47	
Measurement Canada Re-Verification Accrual Account	B				$16,961.97		$16,961.97		$16,961.97		$16,961.97		$16,961.97	
AMI Inventory Costs (Meters to Replace Rever Meters)	A				$23,404.03									
Contingency at 5.0%			$1,189.44	$0.00	$72,407.35	$7,000.72	$1,339.37	$9,401.37	$1,339.37	$7,534.08	$1,339.37	$7,694.54	$1,339.37	$7,859.00
Section Sub Total			$24,978.33	$0.00	$1,520,554.26	$147,015.19	$28,126.82	$197,428.87	$28,126.82	$158,215.77	$28,126.82	$161,585.28	$28,126.82	$165,039.02
Total Smart Meter Assest Investment			$24,978.33		$1,545,532.59		$1,573,659.41		$1,601,786.23		$1,629,913.05		$1,658,039.86	
Total Depreciation Amount Based On 15 Years Straight Line			$1,665.22		$104,700.73		$209,611.36		$316,397.10		$425,057.97		$535,593.97	
Current Value of Sections Smart Meter Assets			$23,313.11		$1,440,831.87		$1,364,048.06		$1,285,389.12		$1,204,855.07		$1,122,445.90	
BILLING / CUSTOMER SERVICE														
CIS Automated Meter Change Package	G				$13,783.00									
Smart Meter Customer Presentment Tools (Web, IVR)	3	3			$27,566.00			$3,854.74		$4,371.27		$4,957.02		$5,621.26
Smart Meter Entity MDM/R (est Based On OEB 2005 Report)	3	3			$15,000.00	$37,476.60		$37,476.60		$37,476.60		$37,476.60		$37,476.60
Bill Print Modifications	3	3					$10,000.00							
Customer Education Packages	3	3			$19,273.68		$19,273.68							
CIS TOU Modifications and MDM/R Integration	3	3			$16,200.00		$10,800.00							
Staff Training and Department Integration	3	3					$15,000.00			$3,000.00				
Contingency at 5.0%			$0.00	$0.00	$4,591.13	$1,873.83	$2,753.68	$2,066.57	$0.00	$2,242.39	$0.00	$2,121.68	$0.00	$2,154.89
Section Sub Total			$0.00	$0.00	$96,413.81	$39,350.43	$57,827.36	$43,397.90	$0.00	$47,090.26	$0.00	$44,555.30	$0.00	$45,252.75
Total Smart Meter Assest Investment			$0.00		$96,413.81		$154,241.18		$154,241.18		$154,241.18		$154,241.18	
Total Depreciation Amount Based On 3 Years Straight Line			$0.00		$32,137.94		$83,551.66		$134,965.39		$154,241.18		$154,241.18	
Current Value of Sections Smart Meter Assets			$0.00		$64,275.88		$70,689.51		$19,275.79		$0.00		$0.00	
FINANCE / CORPORATE														
Consulting Services	B		$20,000.00		$20,000.00		$20,000.00							
Legal for AMI Contracts	B		$20,000.00											
Legal for Installation Contract	B		$10,000.00											
Legal for Old Meter Recycling Contract	B		$4,000.00											
AMI Security Audits	B	L			$20,000.00			$20,000.00		$20,000.00		$20,000.00		$20,000.00
Contingency at 5.0%			$2,700.00	$0.00	$2,000.00	$0.00	$1,000.00	$1,000.00	$0.00	$1,000.00	$0.00	$1,000.00	$0.00	$1,000.00
Section Sub Total			$56,700.00	$0.00	$42,000.00	$0.00	$21,000.00	$21,000.00	$0.00	$21,000.00	$0.00	$21,000.00	$0.00	$21,000.00
Total Smart Meter Assest Investment			$56,700.00		$98,700.00		$119,700.00		$119,700.00		$119,700.00		$119,700.00	
Total Depreciation Amount Based On 15 Years Straight Line			$3,780.00		$10,360.00		$18,340.00		$26,320.00		$34,300.00		$42,280.00	

Current Value of Sections Smart Meter Assets			$52,920.00		$88,340.00		$101,360.00		$93,380.00		$85,400.00		$77,420.00	
			2007		2008		2009		2010		2011		2012	
			Capital	Operating	Capital	Operating	Capital	Operating	Capital	Operating	Capital	Operating	Capital	Operating
Totals			$81,678.33	$0.00	$1,658,968.07	$186,365.62	$106,954.18	$261,826.77	$28,126.82	$226,306.03	$28,126.82	$227,140.58	$28,126.82	$231,291.78

Total Capital Budget for AMI Only	**$1,777,739.86**
Average Capital Per Meter for AMI Only	**$199.23**
Average Operating Cost Per Meter For AMI Only	**$25.59**

Total Capital Budget for Residential SMI	**$1,931,981.04**
Average Capital Per Meter for Smart Meter Initiative	**$216.52**
Average Operating Cost Per Meter Per Year for SMI	**$31.74**

Rate Filing	Category	2007	2008	2009	2010	2011	2012	TOTAL
Smart Meter Unit Costs	A	$0.00	$945,047.65	$10,316.75	$10,316.75	$10,316.75	$10,316.75	**$110.54**
Smart Meter Other Unit Costs	B	$56,700.00	$134,957.62	$38,810.07	$17,810.07	$17,810.07	$17,810.07	**$31.82**
Smart Meter Installation Costs Per Unit	C	$0.00	$199,792.67	$0.00	$0.00	$0.00	$0.00	**$22.39**
Smart Meter Other Costs Per Unit	D	$2,211.30	$80,577.15	$0.00	$0.00	$0.00	$0.00	**$9.28**
AMI Computer Hardware Costs	F	**$0.00**	**$179,412.13**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	
AMI Computer Software Costs	G	**$0.00**	**$14,472.15**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	
Other Computer Hardware Costs	H	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	
Other Computer Software Costs	I	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	
Incremental AMI O&M Expenses	J	**$0.00**	**$147,015.19**	**$194,278.87**	**$158,215.77**	**$161,585.28**	**$165,039.02**	
Incremental AMI Admin Expenses	K	**$0.00**	**$0.00**	**$3,150.00**	**$0.00**	**$0.00**	**$0.00**	
Incremental Other O&M Expenses	L	**$0.00**	**$0.00**	**$21,000.00**	**$21,000.00**	**$21,000.00**	**$21,000.00**	
Incremental Other Admin Expenses	M	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	
Utility Safety & Maintenance Capital Budget	2	**$22,767.03**	**$22,767.03**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	
TOU Billing Budget	3	**$0.00**	**$121,292.09**	**$101,225.27**	**$47,090.26**	**$44,555.30**	**$45,252.75**	
	Grand Total	**$81,678.33**	**$1,845,333.70**	**$368,780.95**	**$254,432.85**	**$255,267.39**	**$259,418.60**	
Difference From Above		**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	

	2007		2008		2009		2010		2011		2012	
Category	**Capital**	**Operating**	**Capital**	**Operating**	**Capital**	**Operating**	**Capital**	**Operating**	**Capital**	**Operating**	**Capital**	**Operating**
A	$0.00	$0.00	$900,045.38	$0.00	$9,825.47	$0.00	$9,825.47	$0.00	$9,825.47	$0.00	$9,825.47	$0.00
B	$54,000.00	$0.00	$128,531.07	$0.00	$36,961.97	$0.00	$16,961.97	$0.00	$16,961.97	$0.00	$16,961.97	$0.00
C	$0.00	$0.00	$190,278.73	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
D	$2,106.00	$0.00	$76,740.14	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
F	$0.00	$0.00	$170,868.70	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
G	$0.00	$0.00	$13,783.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
H	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
I	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
J	$0.00	$0.00	$0.00	$140,014.47	$0.00	$185,027.49	$0.00	$150,681.68	$0.00	$153,890.74	$0.00	$157,180.02
K	$0.00	$0.00	$0.00	$0.00	$0.00	$3,000.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
L	$0.00	$0.00	$0.00	$0.00	$0.00	$20,000.00	$0.00	$20,000.00	$0.00	$20,000.00	$0.00	$20,000.00
M	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
2	$21,682.89	$0.00	$21,682.89	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
3	$0.00	$0.00	$78,039.68	$37,476.60	$55,073.68	$41,331.34	$0.00	$44,847.87	$0.00	$42,433.62	$0.00	$43,097.86
Sub Total	$77,788.89	$0.00	$1,579,969.59	$177,491.07	$101,861.12	$249,358.83	$26,787.44	$215,529.55	$26,787.44	$216,324.36	$26,787.44	$220,277.88
Contingency	$3,889.44	$0.00	$78,998.48	$8,874.55	$5,093.06	$12,467.94	$1,339.37	$10,776.48	$1,339.37	$10,816.22	$1,339.37	$11,013.89
Grand Total	$81,678.33	$0.00	$1,658,968.07	$186,365.62	$106,954.18	$261,826.77	$28,126.82	$226,306.03	$28,126.82	$227,140.58	$28,126.82	$231,291.78
Difference	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

APPENDIX V

EnerSpectrum Group

Lakefront Utilities Inc.

Conversion from 4160 V to 27,600 V

Distribution System Loss Assessment

Report 2

E1021

April 25, 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 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 and 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.

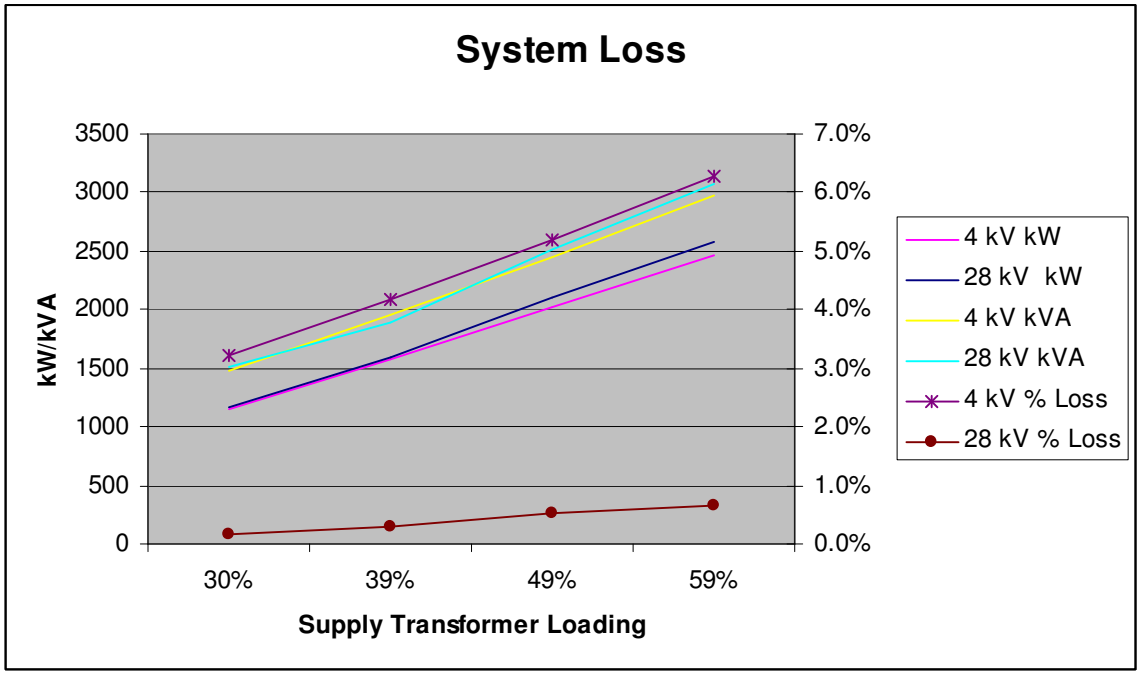


Figure 1
Feeder F9 Peak Loss vs. Supply Transformer Loading

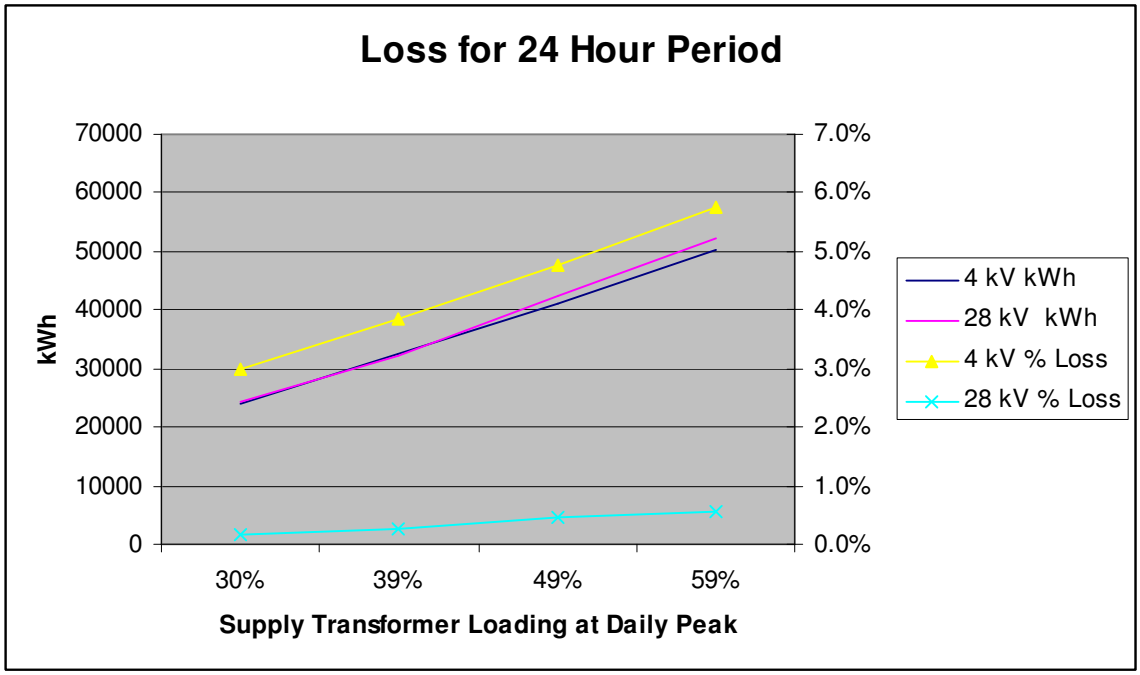


Figure 2
Feeder F9 Energy Loss vs. Peak Transformer Loading

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

					Max	kVA	
					28		199
Time	**R**	**W**	**B**	**Hour**	**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

					Max	kVA
					118	850
Time	**R**	**W**	**B**	**Hour**	**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

					Max	kVA
					378	2724
Time	R	W	B	Hour	Avg	
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	

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

					Max	kVA
					279	2013
Time	**R**	**W**	**B**	Hour	**Avg**	
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

					Max	kVA
					41	295
Time	**R**	**W**	**B**	**Hour**	**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 F15

					Max	kVA
					113	817
Date	R	W	B	Hour	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

					Max	kVA
					208	1501
Time	**R**	**W**	**B**	**Hour**	**Avg**	
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	

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

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

					Max	kVA
					230	1655
Time	**R**	**W**	**B**	**Hour**	**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	

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

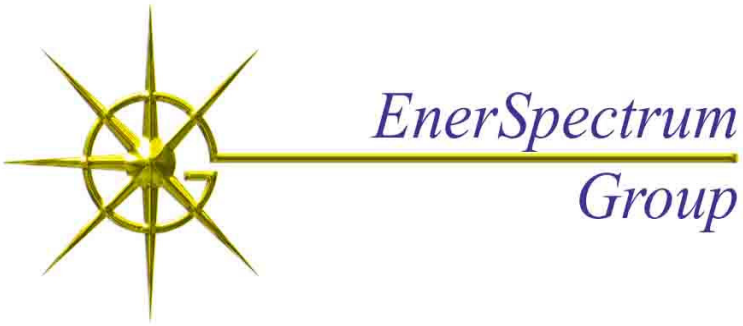
28 kV 24 Hour Load kWh

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.

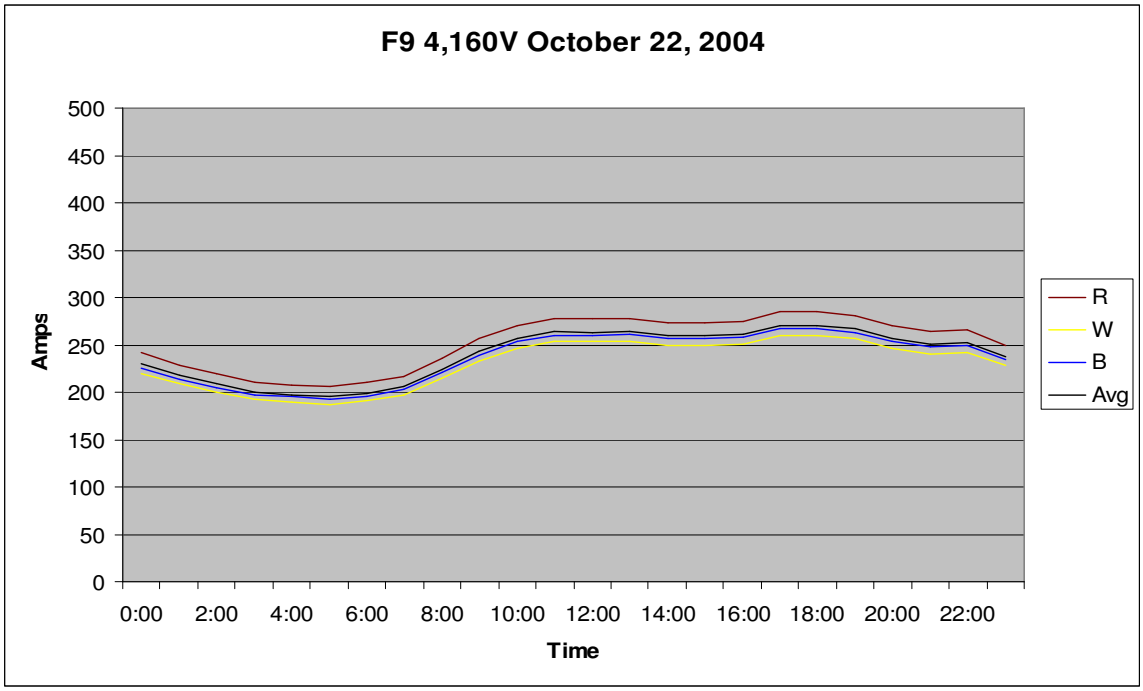


Figure 1
F9 4,160 V Model Adjusted to Match 10:00 AM Currents

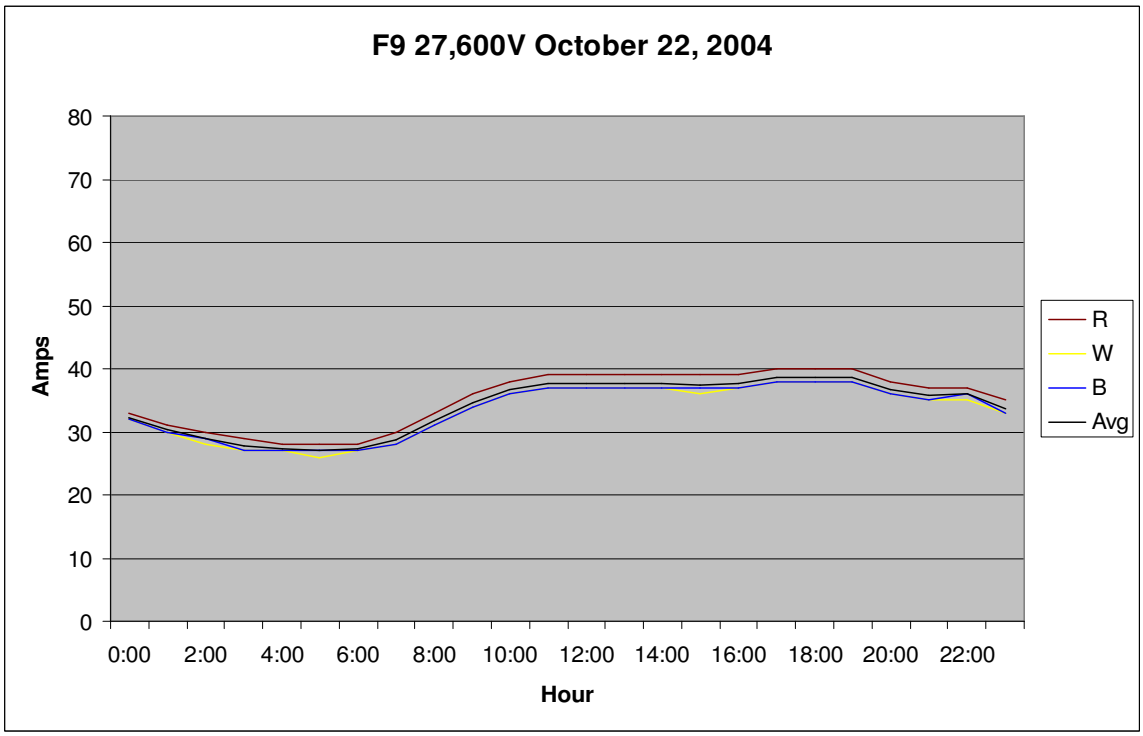


Figure 2
F9 27,600 V Model Equivalent, Adjusted to Match 10:00 AM Currents

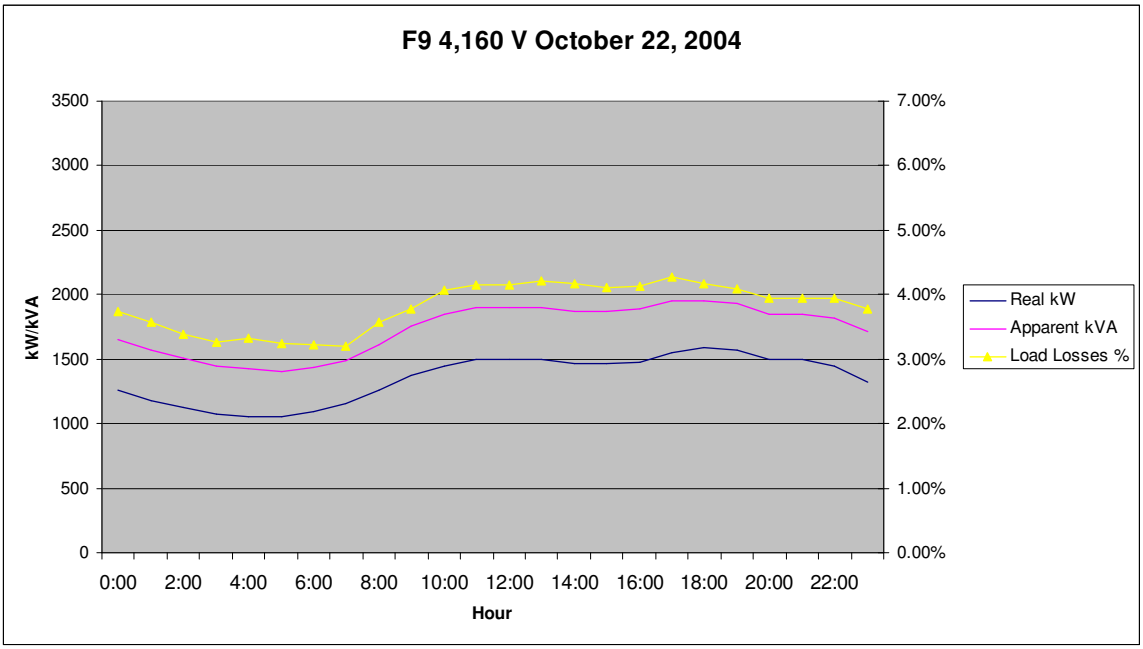


Figure 3
F9 4,160 V Model Adjusted to Match 10:00 AM Currents

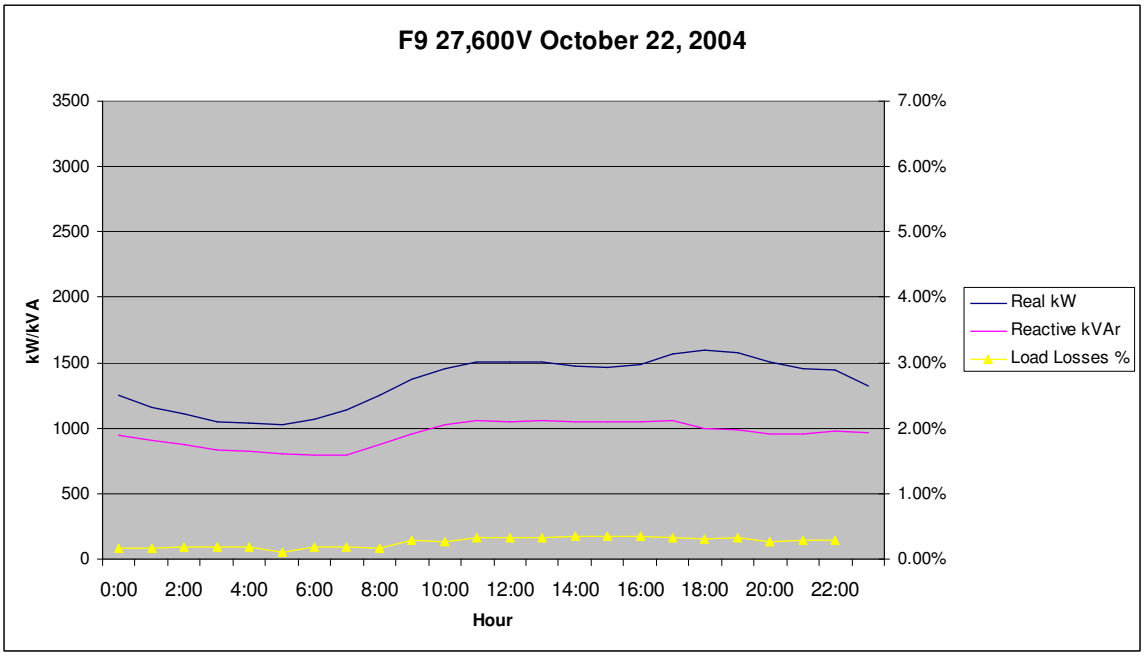


Figure 4
F9 27,600 V Model Equivalent, Adjusted to Match 10:00 AM Currents

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.

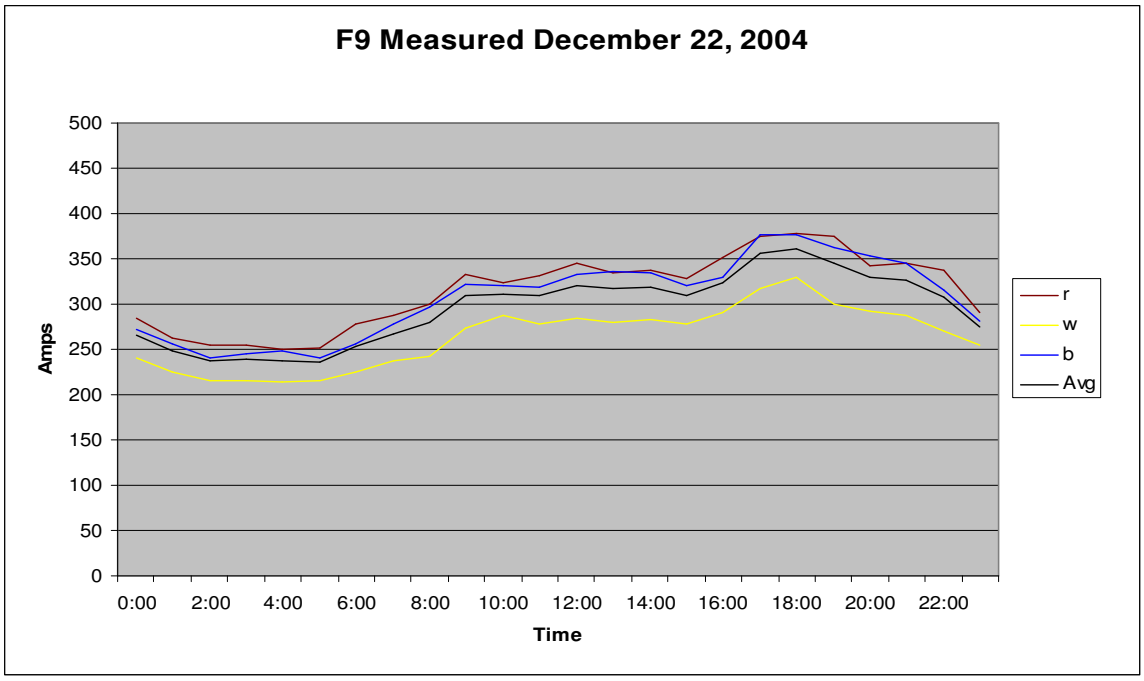


Figure 5
F9 4,160 V Measured Current December 22, 2004

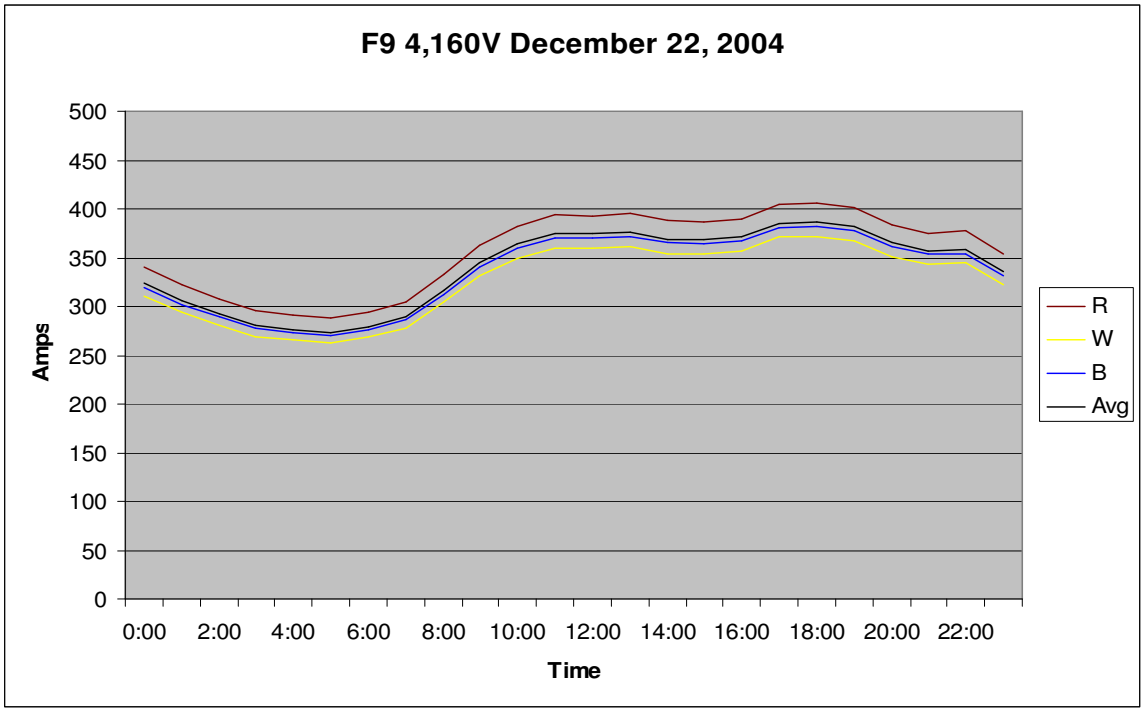


Figure 6
F9 4,160 V Modeled Current December 22, 2004

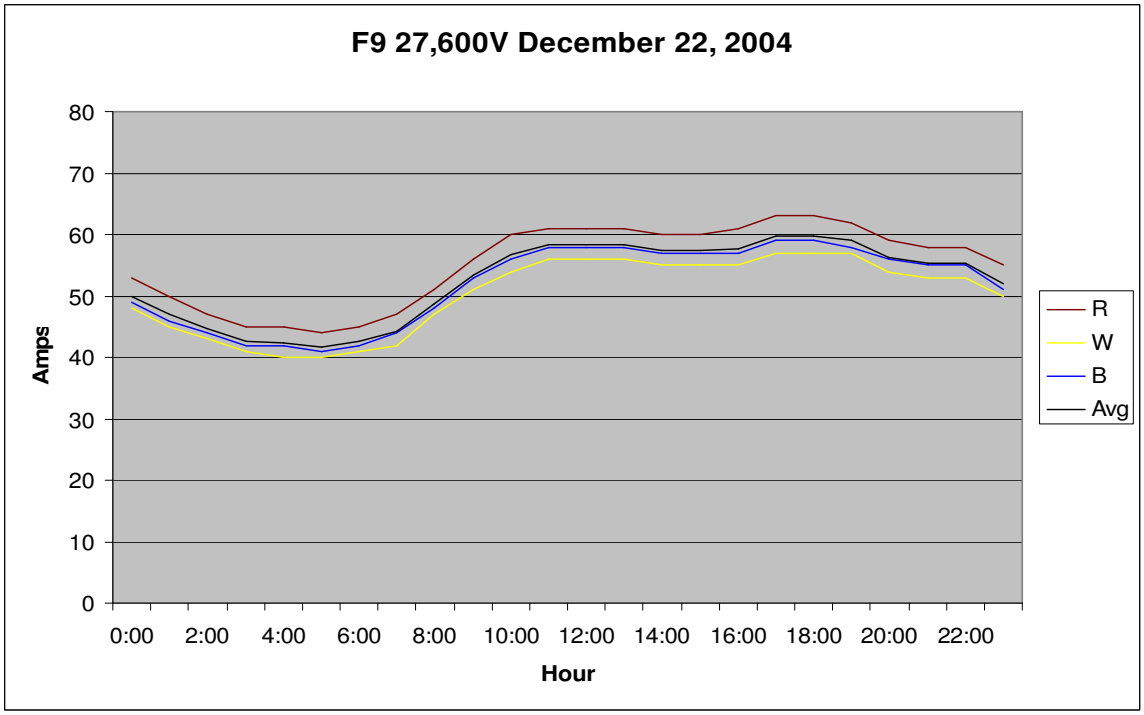


Figure 7
F9 27,600 V Modeled Current December 22, 2004

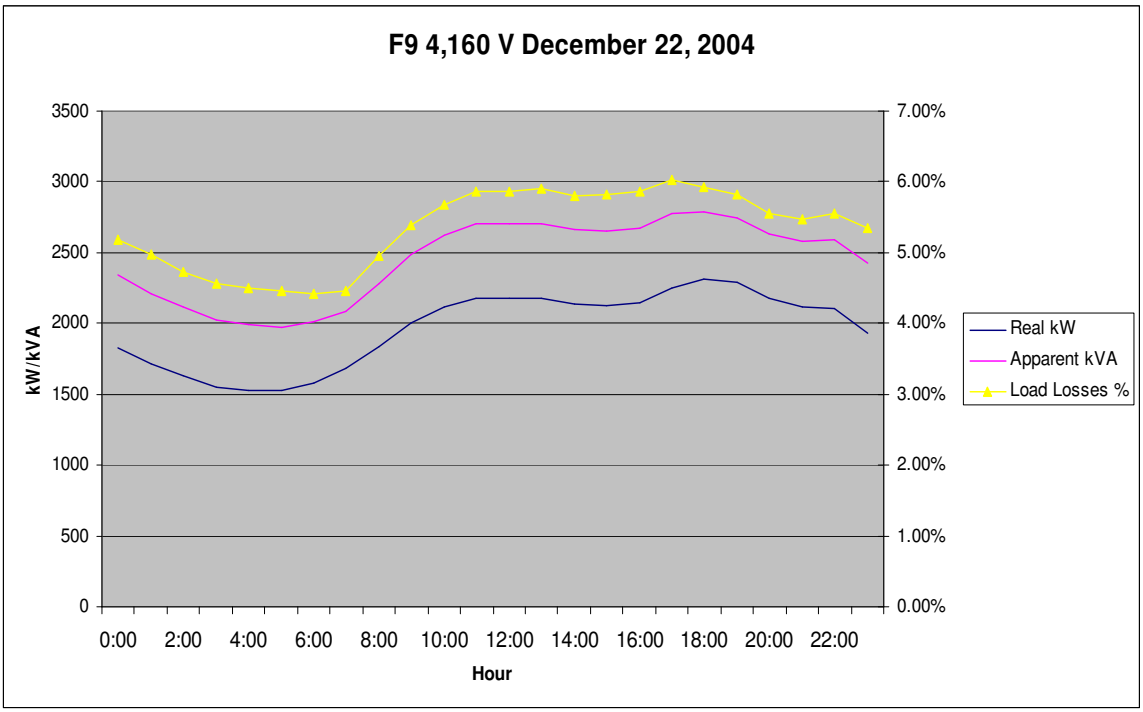


Figure 8
F9 4,160 V Modeled Energy and Loss December 22, 2004

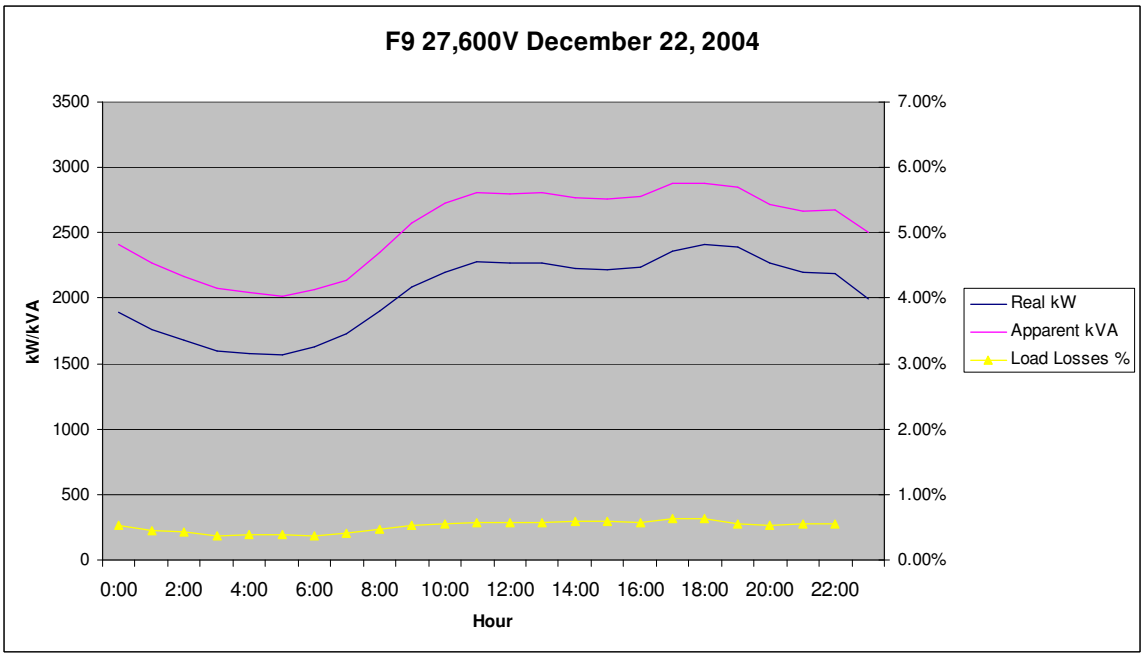


Figure 9
F9 27,600 V Modeled Energy and Loss December 22, 2004

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:

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

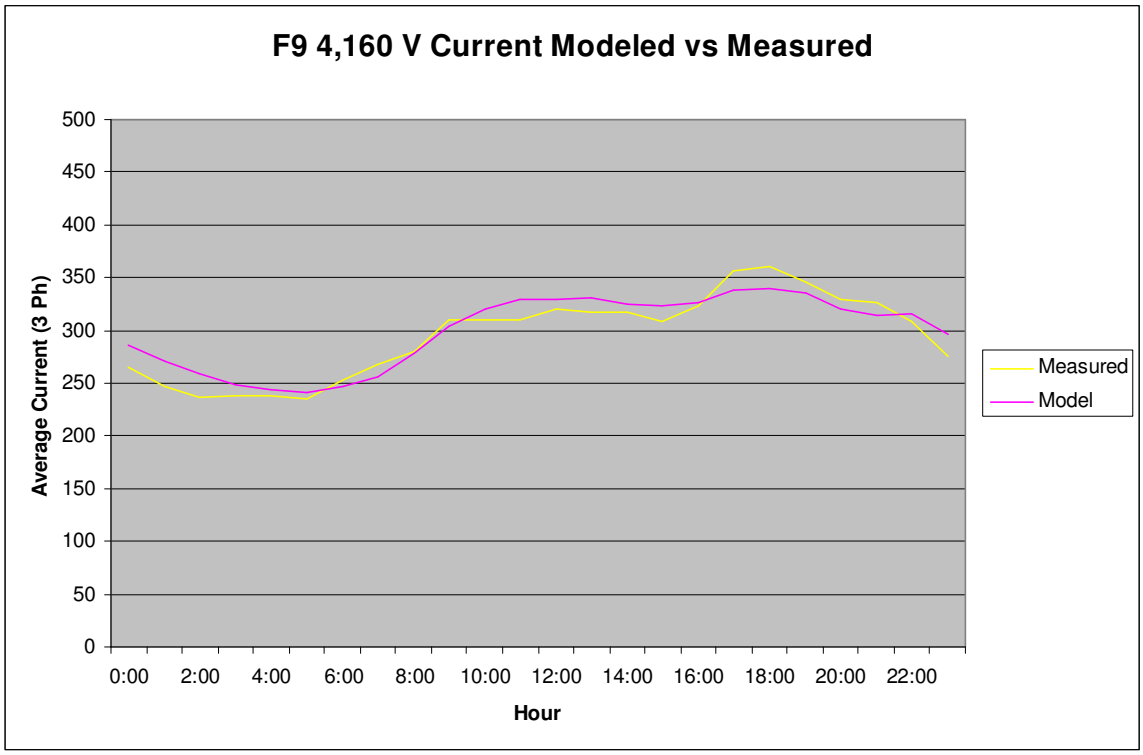


Figure 10
F9 Average Current Modeled vs. Measured

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.

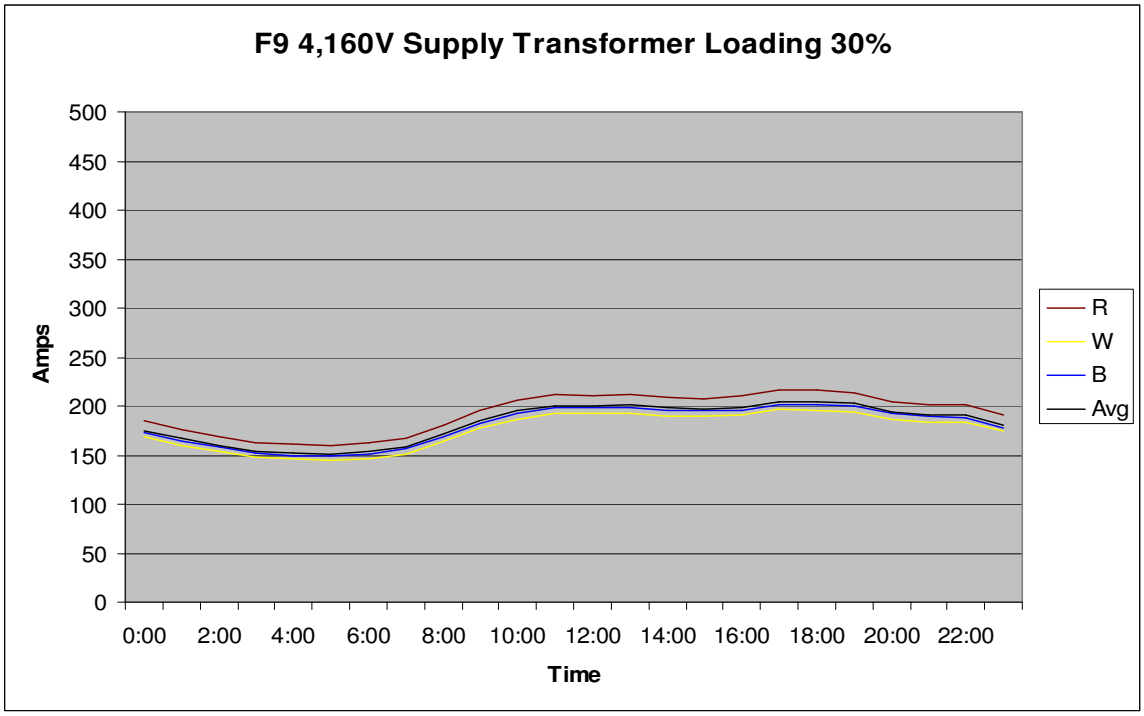


Figure 11
F9 4,160 Current at 30% Transformer Loading

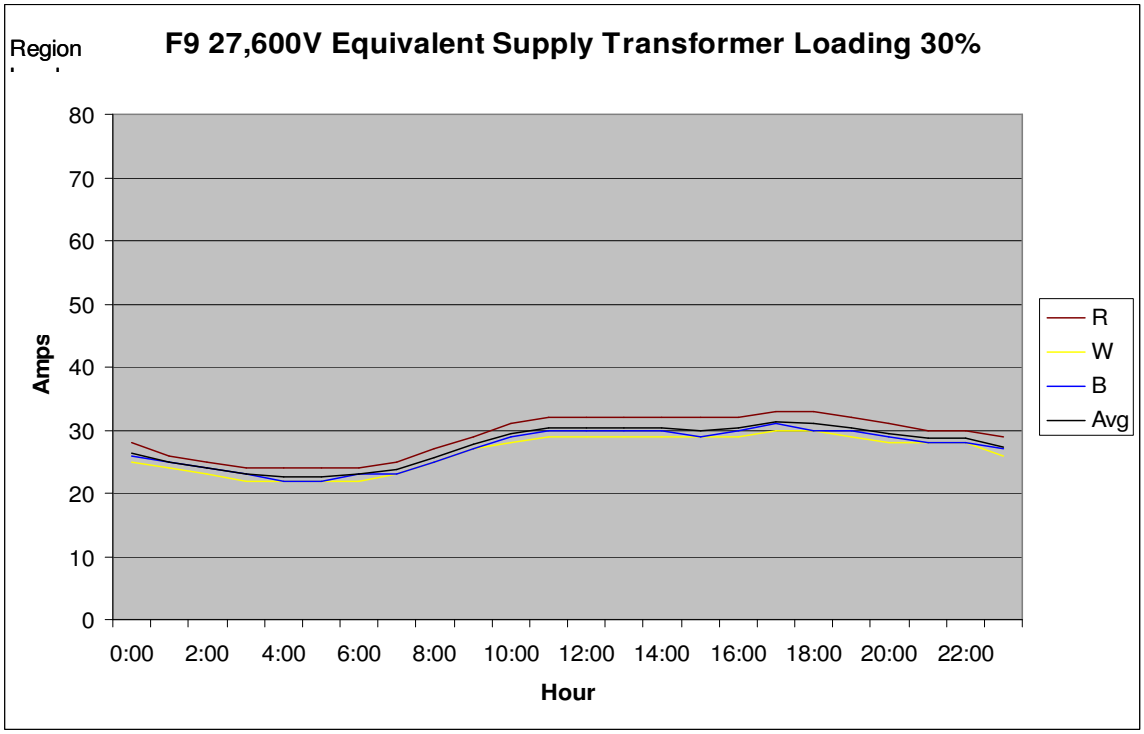


Figure 12
F9 27,600 Current at Equivalent 30% Transformer Loading

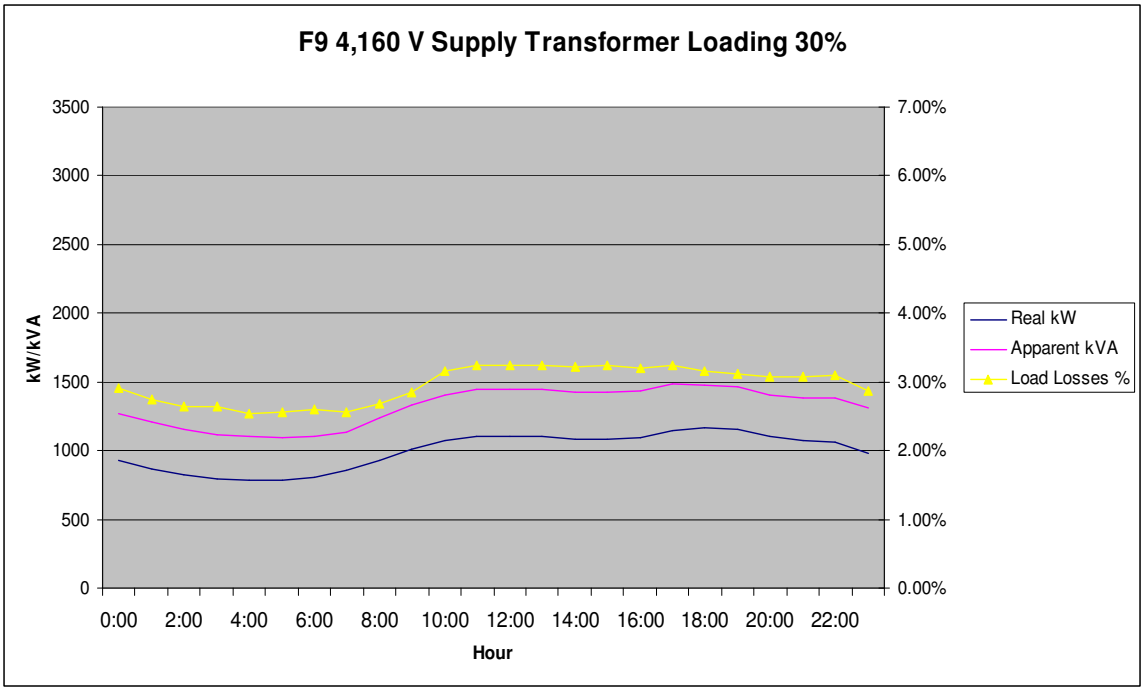


Figure 13
F9 4,160 Load and Loss at 30% Transformer Loading

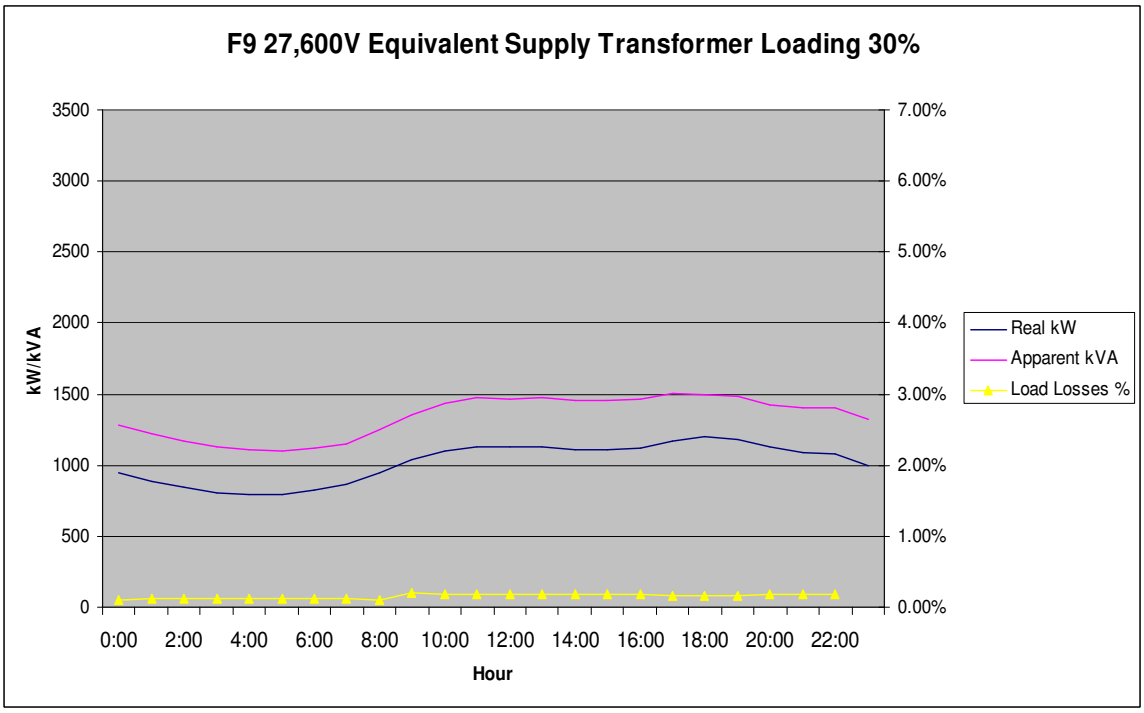


Figure 14
F9 27,600 Load and Loss at Equivalent 30% Transformer Loading

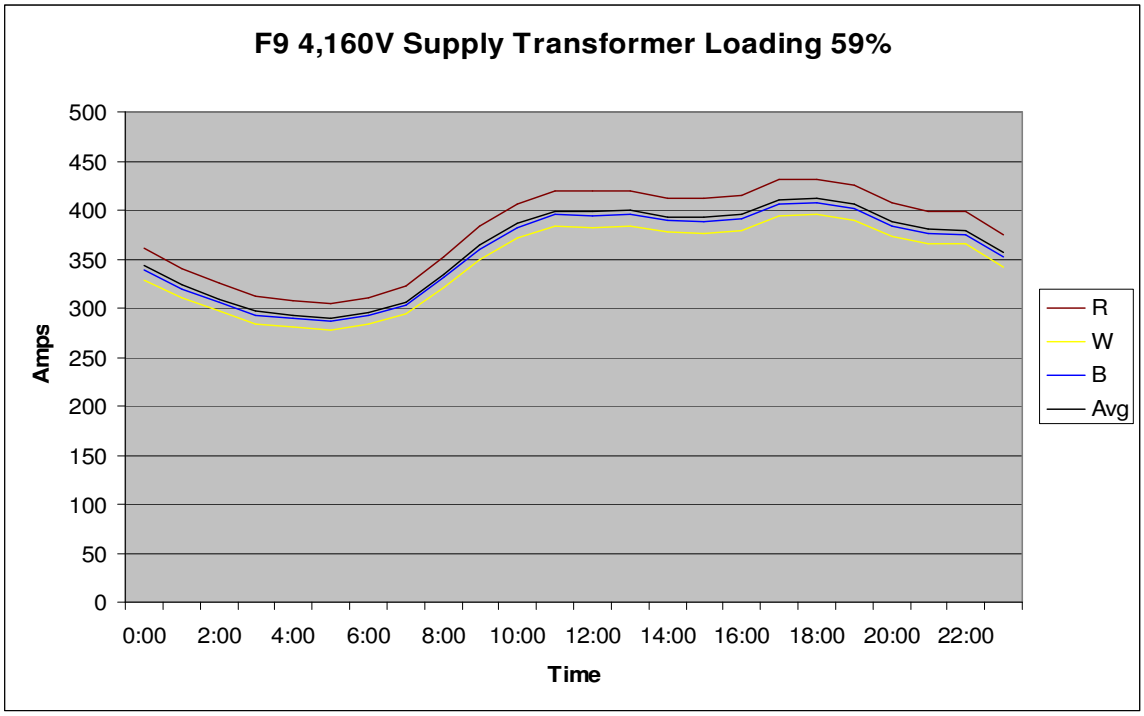


Figure 15
F9 4,160 Current at 59% Transformer Loading

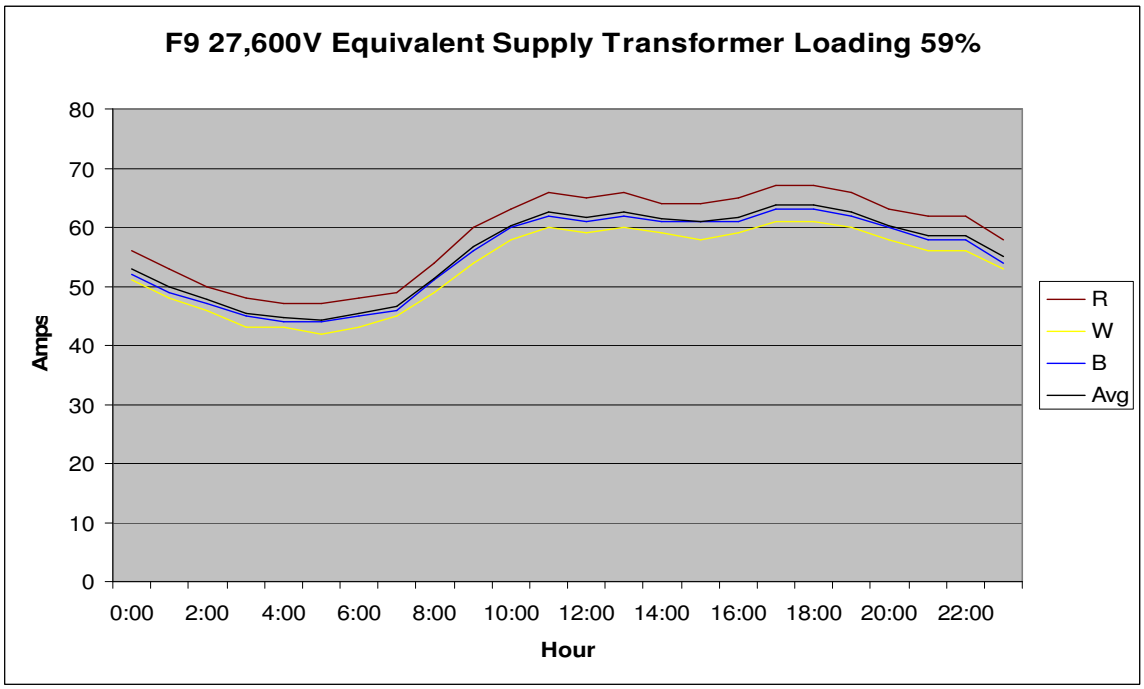


Figure 16
F9 27,600 Current at Equivalent 59% Transformer Loading

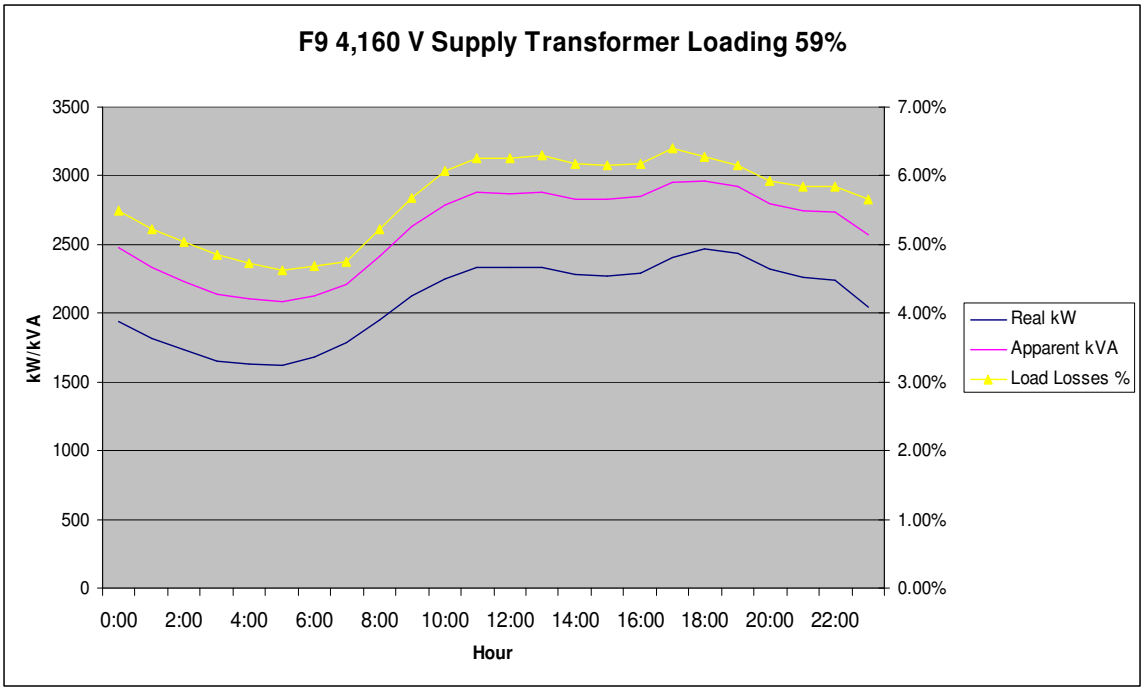


Figure 17
F9 4,160 Load and Loss at 59% Transformer Loading

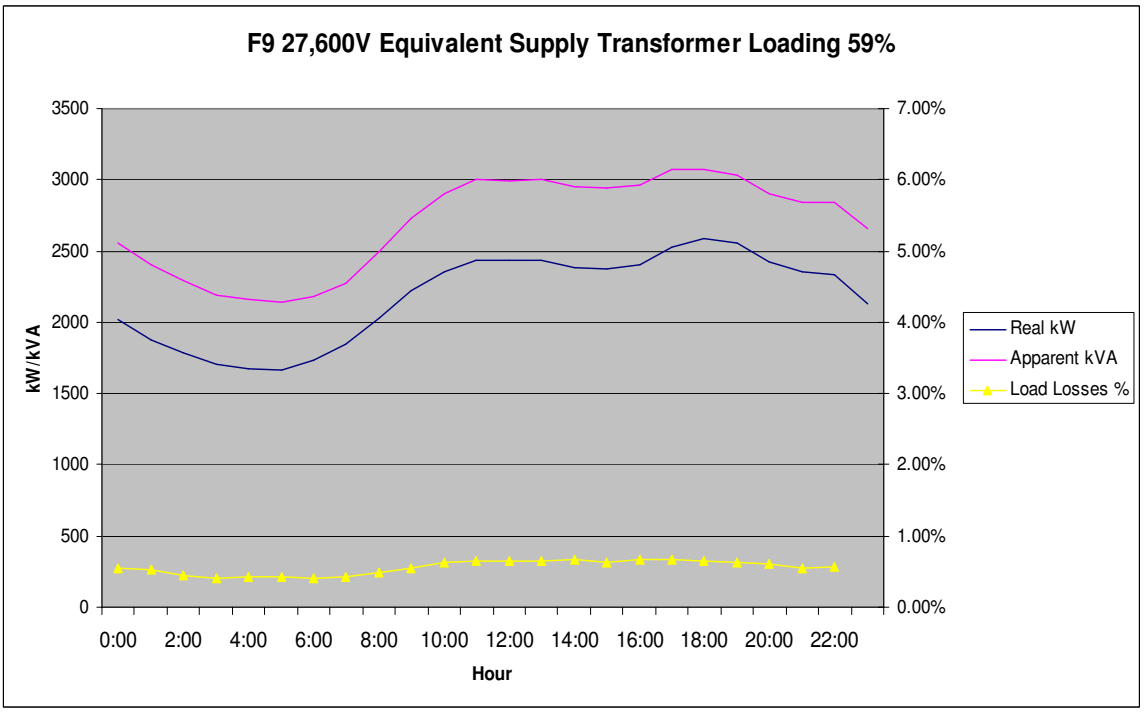


Figure 18
F9 27,600 Load and Loss at Equivalent 30% Transformer Loading

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.

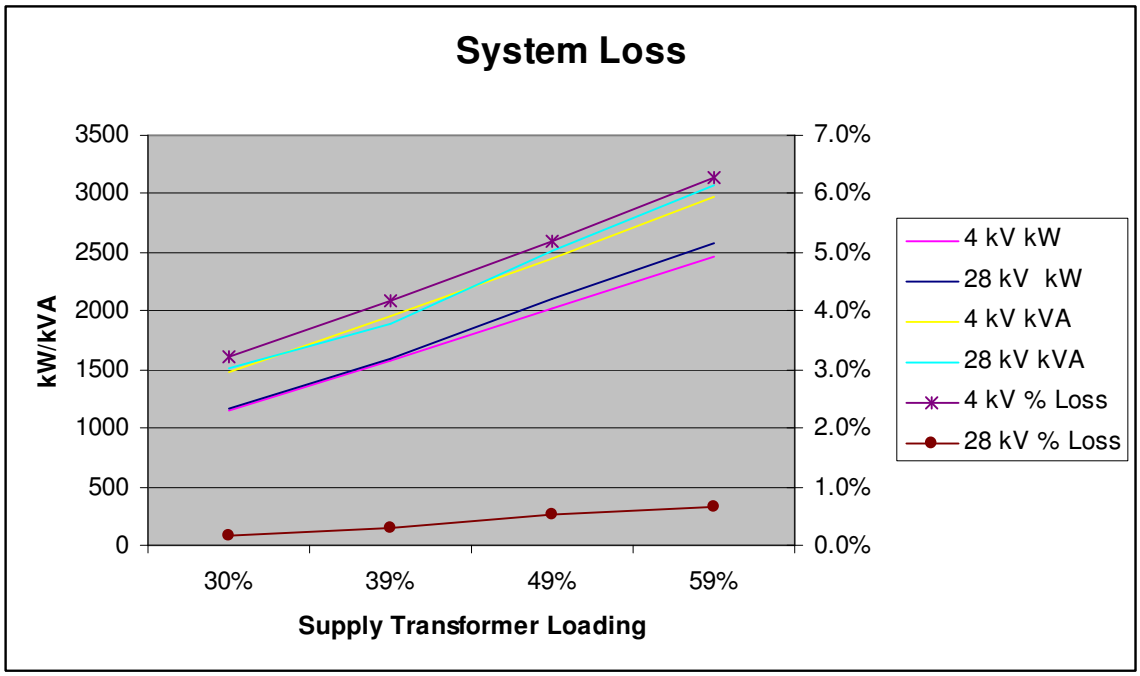


Figure 19
Peak Loss vs. Supply Transformer Loading

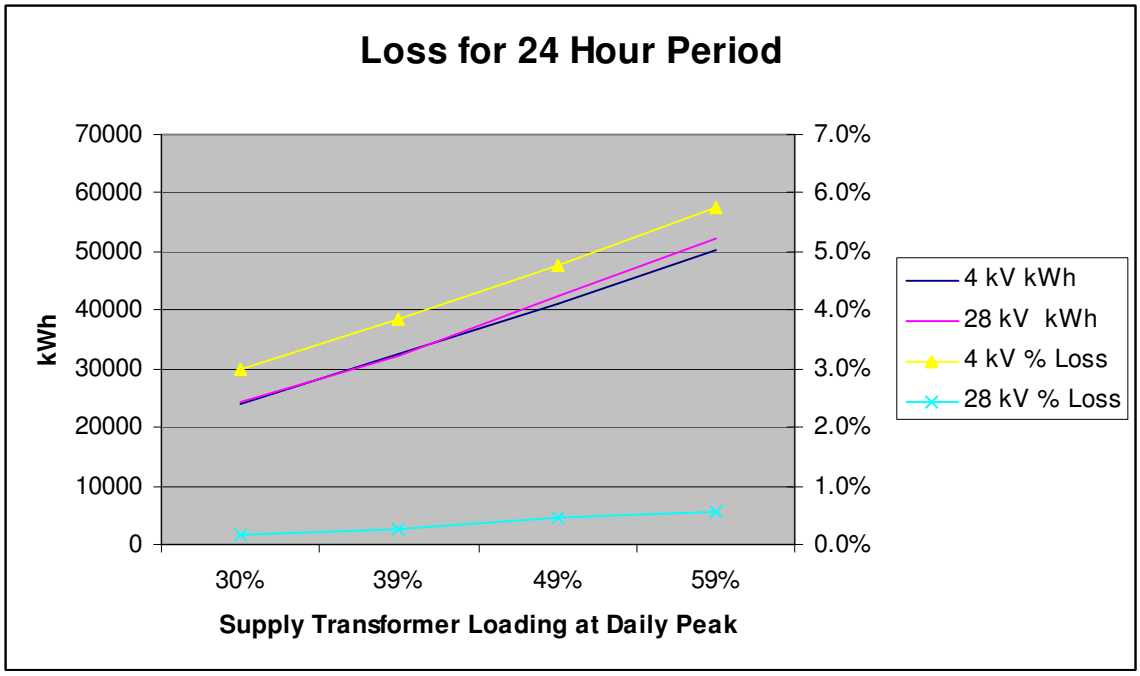


Figure 20
Energy Loss vs. Peak Transformer Loading

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 that 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		Hour	R	W	B	Avg	
0:00	242	220	226	229	Amps	0:00	33	32	32	32	Amps
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				Region Load Losses				Distribution Transformer			
Hour	Real kW	Reactive kVAr	Apparent kVA	pf	Real kW	Reactive kVAr	Apparent kVA	pf	Load Losses kW	No 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

F9 27,600 V

	Region Load				Region Load Losses				Distribution Transformer			
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	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		Hour	R	W	B	Avg	
0:00	302	275	283	287	Amps	0:00	46	42	43	44	Amps
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

	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	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		Hour	R	W	B	Avg
0:00	185	168	173	175	Amps	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

		kVA Max	Transf Loading
F9	4160V incl 44kV/4160V Transf	1,482	30%

	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	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

	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	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		Hour	R	W	B	Avg	
0:00	361	329	339	343	Amps	0:00	56	51	52	53	Amps
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	

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

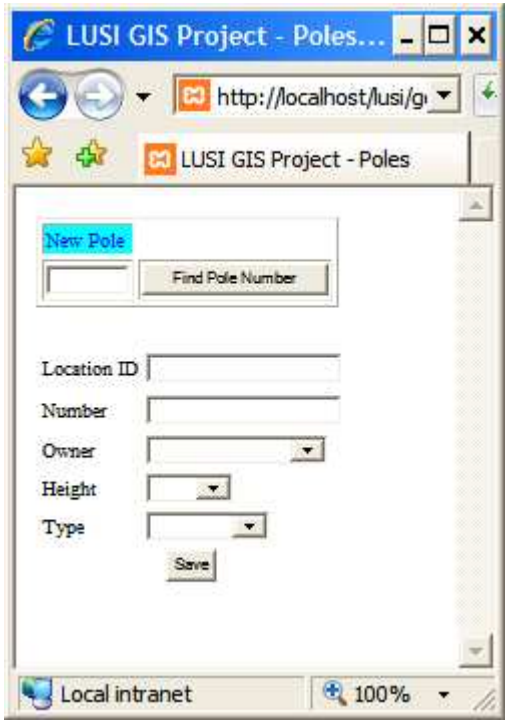
	Region Load				Region Load Losses				Distribution Transformer		Total	
Hour	Real kW	Reactive kVAr	Apparent kVA	pf	Real kW	Reactive kVAr	Apparent kVA	pf	Load Losses kW	No Load Losses kW	Load Losses %	Load Losses kW
0:00	1946	1528	2,474	0.79	99	212	234	0.42	8	106	5.50%	107
1:00	1816	1471	2,337	0.78	88	189	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

	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	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

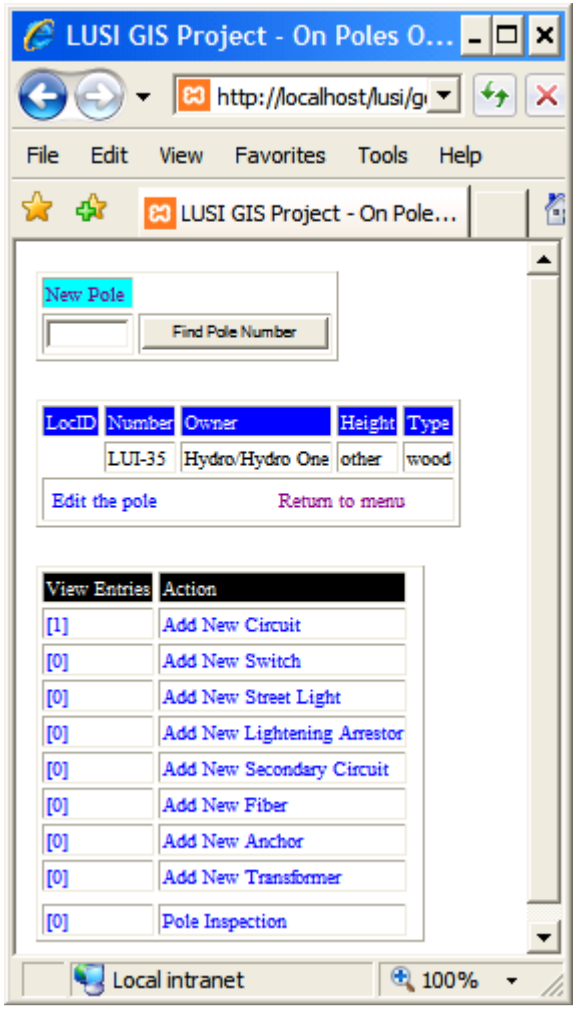
Appendix 7 – Measured Currents December 22, 2004

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

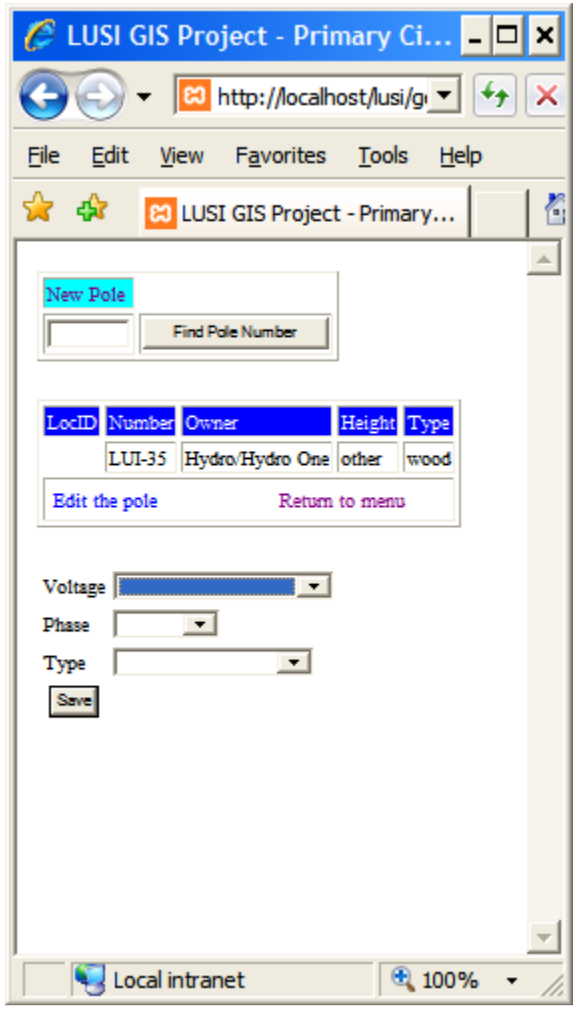
APPENDIX V



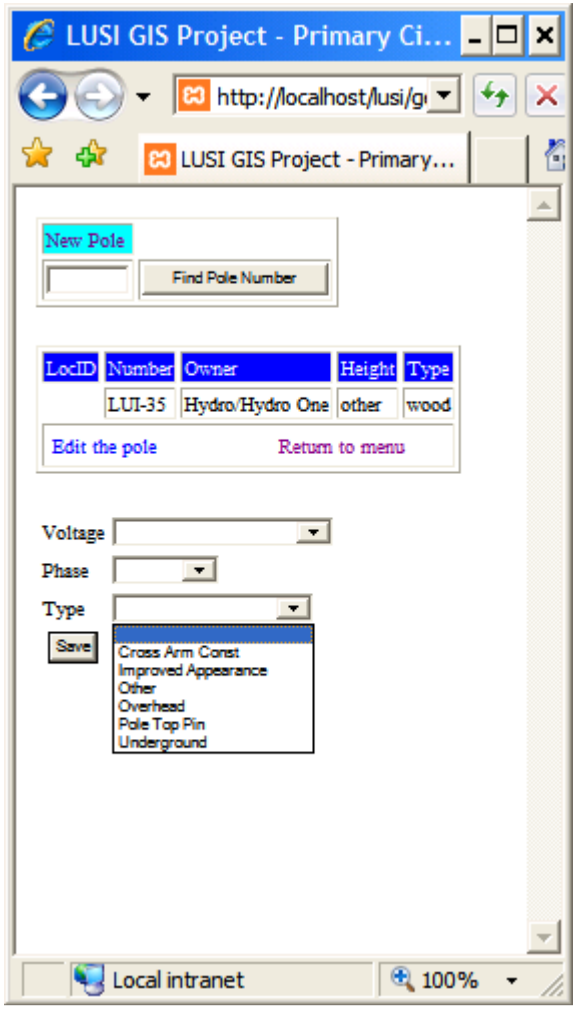
Pole Form



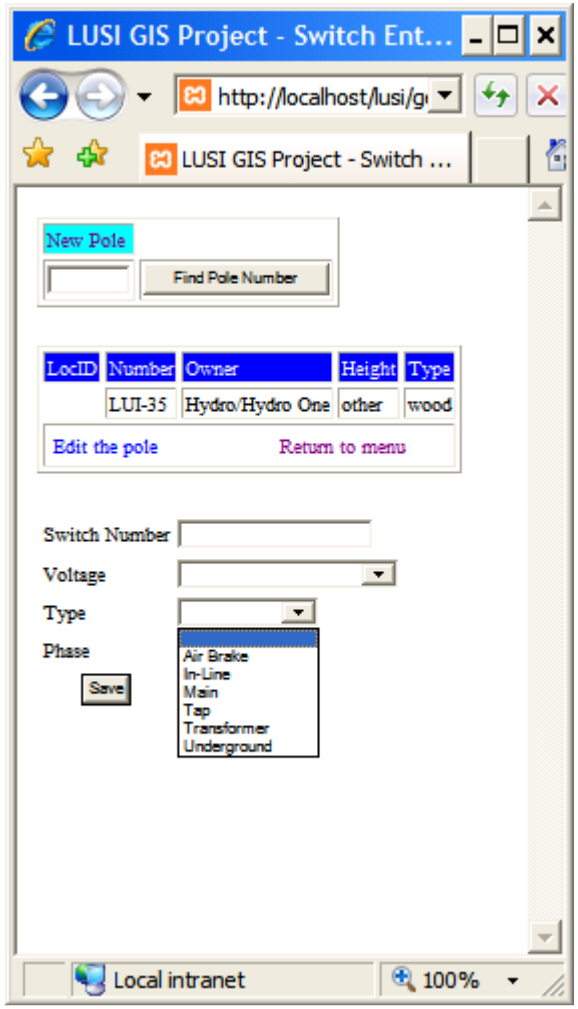
Menu for Pole Detail Forms



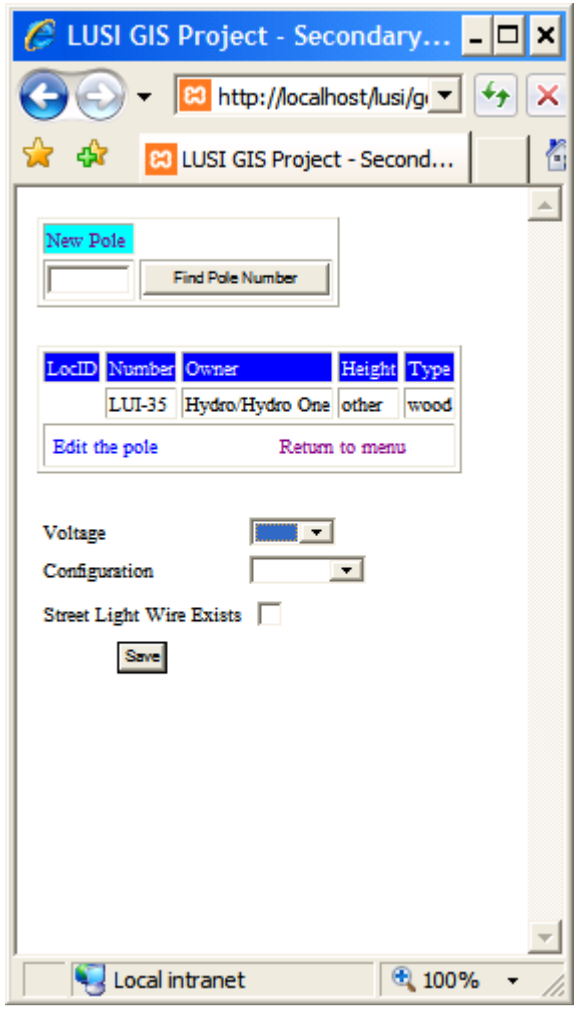
Circuit Form



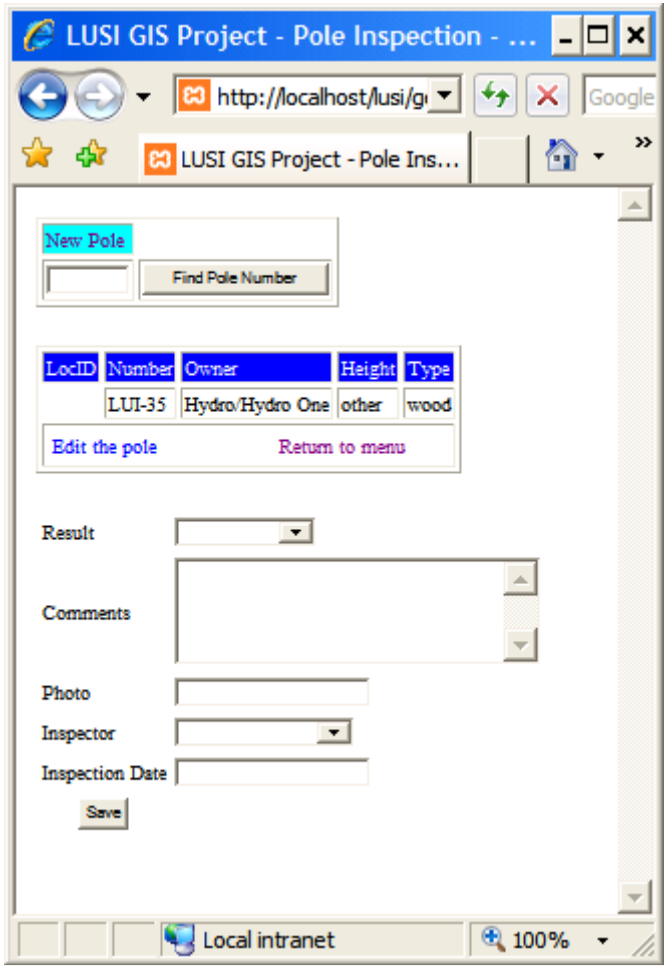
Circuit Form



Switch Form

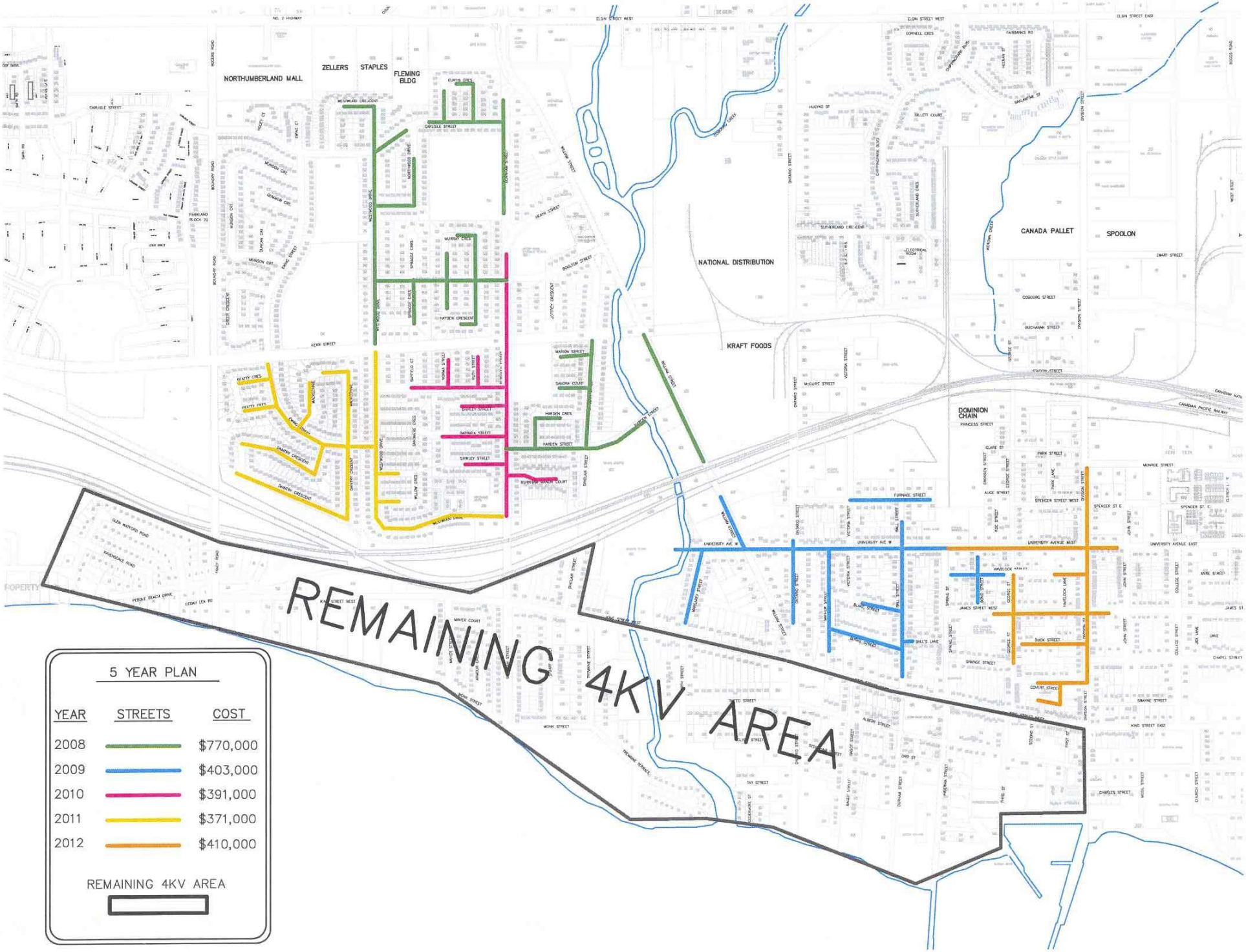


Secondary Circuit Form



Pole Inspection Form

APPENDIX V


NORTHUMBERLAND MALL
ZELLERS
STAPLES
FLEMING BLDG
NATIONAL DISTRIBUTION
KRAFT FOODS
CANADA PALLET
SPOOLON
DOMINION CHAIN
REMAINING 4KV AREA
5 YEAR PLAN
YEAR STREETS COST
2008 $770,000
2009 $403,000
2010 $391,000
2011 $371,000
2012 $410,000
REMAINING 4KV AREA

PoleInsectionDetails

Result

Number	Owner	:tionDate	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

Result Bad Top

Number	Owner	:tionDate	Inspector	Comments
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 Robillard
256	Hydro	06-05-30		shell rot split Rob Robillard
271	Hydro	06-05-30	Rob Robilliard	shell rot
278	Hydro	06-05-30	Rob Robilliard	broken
733	Hydro	06-06-20	Steve Jackson	

Result Leaning

Number	Owner	:tionDate	Inspector	Comments
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	

Result OK

Number	Owner	:tionDate	Inspector	Comments
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

Result Other

Number	Owner	tionDate	Inspector	Comments
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 Robillard
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

Result Rotten

Number	Owner	:tionDate	Inspector	Comments
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	

Result Split

Number	Owner	:tionDate	Inspector	Comments
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	

APPENDIX Vii

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
3e étage
Toronto ON M7A 2C1

Tél: (416) 325-6544
Téléc.: (416) 314-7041

Ontario

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, 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,

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.