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**School Energy Coalition Interrogatory #16**

**Question:**

**[B1/4/2] With respect to the Capital Additions 2007-2009:**

- (a) p. 2. Please provide a chart of the five largest externally driven projects planned for 2009, including the nature of the project, the entity requiring that it be done, the total cost (broken down by year for multi-year projects), contributions from others, and current project status.**
- (b) p. 2. Please provide a chart showing all capital projects that have been moved from 2006, 2007, 2008 or 2010 to 2008 or 2009.**
- (c) p. 2. Please restate Table 2 showing amounts closed or to be closed to rate base for each category and in each year.**
- (d) p. 2. Please revise Table 2 to add actuals for 2005 and 2006, and forecast for 2010.**
- (e) p. 5. Please provide a chart of all existing transformer stations, including description, location, original cost, unamortized cost, age, and date of planned replacement (if known).**
- (f) p. 5. Please provide the internal report or business case, including the “reliability and risk assessment” referred to, supporting the purchase of spare units relating to aging transformer station assets. Please provide details on the cost/planned cost of these purchases for each year from 2007 through 2012.**
- (g) p. 8. Please provide the internal report or reports detailing the reliability and outage problems of the three listed stations/areas targeted for conversion.**
- (h) p. 12. Please provide a chart of all existing distribution stations, including description, location, original cost, unamortized cost, age, and date of planned replacement (if known).**
- (i) p. 19. Please explain how the suite metering program of the Applicant is compliant with Compliance Bulletin #200901 issued by the Board on March 24, 2009. If any part of the program is not compliant, please provide a revised budget for suite metering that includes only compliant activities, and identify the revenue requirement impact of that amendment.**
- (j) p. 21. Please provide a chart showing the expenditures on the GIS system each year from 2005, including planned expenditures for 2009 and 2010. For each year, describe the major enhancements and new applications implemented. For each year, identify the amount of the expenditures that is an allocation of internal staff or other resources.**
- (k) p. 22. Please advise whether the system control room expenses are part of the cost of the new head office, or incremental to it.**

- (l) **p. 23. Please provide a chart showing all capital and operating expenditures in each of 2007 and 2008 (actuals), and 2009 and 2010 (planned) relating to information technology, whether included in the information technology budget or include in other budgets of the Applicant. Please provide a description of the Applicant's information technology department, including number of FTEs (actual, and net of those allocated to affiliates), total direct and indirect budgets, and major changes expected in the department in the Test Year. Please provide a detailed PILs impact calculation relating to information technology capital expenditures for each of 2007, 2008, and 2009.**
- (m) **p. 24. Please provide a description of both the existing and the new hardware relating to the CIS, and the total cost of the replacement planned for 2009. Please confirm that the existing hardware is fully amortized as of the end of 2008. Please identify any salvage value.**
- (n) **p. 25. Please provide a detailed list of all capital and operating expenditures planned for the Test Year relating to International Financial Reporting Standards.**

**Response**

- (a) **Table SEC 16-1: Five Largest Externally Driven Projects in 2009**

Number	Description	Project Type	2009 Budget Gross Cost (\$000)	2009 Budget Contributed Cost (\$000)	2009 Budget Net Cost (\$000)
1	Smart Meter Program	Legal Statutory-Mandated by the OEB	12,975	0	12,975
2	Residential Subdivisions	Legal Statutory	12,510	7,491	5,019
3	Distribution Plant Relocation	Legal Statutory –Road Authority	11,784	5,892	5,892
4	New Commercial Services	Legal Statutory	7,684	7,503	181
5	Meter Reverification & Replacement Program	Legal Statutory-Mandated by Measurement Canada	390	0	390

- (b) Please see Staff 10 and EP 4 for information related to 2008 and 2009. It would require a significant number of person-hours to interrogate the historical project data to identify all capital projects that have been moved from 2006, 2007, 2008 or 2010 to 2008 or 2009.
- (c) (i) Closing of projects to rate base by each project category and year is not available; (ii) Exhibit B1-7-2 and Table 1 represents the fixed asset rate base amounts; and (iii) This reconciliation was requested and is provided in EP 6c.
- (d) Actual Capital spending for 2005 is not available in Table 2 format as PowerStream was only created in June 2004; capital project identification practices were not yet consolidated to a single system. A 2010 forecast will not be available until 4<sup>th</sup> quarter 2009. Please refer to Table SEC 16-2 for 2006 Actual capital plan spending.

**Table 16-2: Capital Spending 2006-2009**

PROJECT DESCRIPTION	Amount	Amount	Amount	Amount
	\$(000)	\$(000)	\$(000)	\$(000)
	2006	2007	2008	2009
<b>1. Sustainment Capital</b>				
1a. Pole or Line Replacements / Upgrades	1,974	2,538	5,319	4,454
1b. Transformer Station Enhancements / Upgrades	881	253	4,528	3,232
1c. Asset Condition Assessment Program	0	0	2,092	5,339
1d. Distribution System Voltage Conversions	1,303	2,231	2,838	3,465
1e. Switchgear Replacements / Upgrades / Refurbishments	1,098	1,222	1,316	1,239
1f. Cable Replacement	0	118	1,063	333
1g. Load Transfers From Other LDC's	4	283	651	0
1h. Distribution Transformer Enhancements / Upgrades / Refurbishment	678	832	741	261
1i. Load Interrupter Switch Replacement	374	386	386	409
1j. Distributor Station Enhancements / Upgrades	96	45	93	472
1k. Unforeseen Capital Projects	786	463	375	414
<b>Total Sustainment Capital</b>	<b>7,194</b>	<b>8,373</b>	<b>19,401</b>	<b>19,618</b>
<b>2. Development Capital</b>				
2a. Transformer Stations - Additional Capacity	9,931	1,556	14,217	22,771
2b. Residential Subdivisions	2,129	4,440	5,119	5,019
2c. Distribution System Plant Re-Location	2,557	1,877	2,268	5,892
2d. New Commercial Services	426	90	183	181
2e. Distribution Stations - Additional Capacity	1,053	376	127	0
2f. New Overhead or Underground Lines	6,679	3,645	1,439	6,742
2g. Unforeseen Capital Projects	632	464	375	414
<b>Total Development Capital</b>	<b>23,407</b>	<b>12,448</b>	<b>23,728</b>	<b>41,019</b>
<b>3. Operations Capital</b>				
3a. System Operation Automation	0	2,005	2,872	1,819
3b. Unplanned Equipment Replacement	1,580	1,835	1,609	1,678
3c. Suite-Metering Costs	494	1,708	1,472	1,086
3d. Fleet	1,413	2,277	1,315	887
3e. Wholesale Meters	293	239	416	256
3f. Tools	216	347	312	310
3g. Smart Grid Program	0	0	273	505
3h. Meter Re-Verification and Replacement Program	1,941	629	204	390
3i. Asset Condition Assessment Model Development	0	108	167	25
3j. Geographic Information System	897	53	137	101
3k. Conservation & Demand Management - Smart Meter Pilot	0	769	0	0
3l. System Control Room	695	1,970	0	0
3m. Storm Damage To Distribution System	0	1,016	1,302	617
3n. Conservation & Demand Management - Load Control Devices	910	630	0	0
<b>Total Operations Capital</b>	<b>8,439</b>	<b>13,587</b>	<b>10,080</b>	<b>7,674</b>
<b>4. Other Miscellaneous Capital</b>				
4a. Information Technology Enhancements	121	2,139	1,222	823
4b. Customer Information System Enhancements	1,229	872	1,666	1,351
4c. Financial System Enhancements	638	1,407	1,170	303
4d. New Computer Equipment / Replacement	776	420	908	800
4e. New Head Office	8,226	17,687	794	381
4f. Software Purchase	306	231	483	297
<b>Total Other Miscellaneous Capital</b>	<b>11,296</b>	<b>22,756</b>	<b>6,243</b>	<b>3,955</b>
<b>5. Total Smart Meters Program</b>	<b>110</b>	<b>10,225</b>	<b>6,994</b>	<b>12,975</b>
<b>Total Capital Expenditures</b>	<b>50,446</b>	<b>67,389</b>	<b>66,446</b>	<b>85,241</b>

(e) The information requested is provided in Table SEC 16-3 below.

**Table SEC 16-3: PowerStream Transformer Stations**

Transformer Stations	Address	Voltage Level	Size	Year	Original Cost	Unamortized Cost	Replace
Markham TS#1	3430 14 <sup>th</sup> Avenue, Markham	230/27.6kV	2 x 50/83 MVA	1986	4,347,001.83	1,956,150.82	n/a
Markham TS#2	7970 Highway #48, Markham	230/27.6kV	2 x 50/83 MVA	1988	4,655,929.46	2,327,964.73	n/a
Markham TS#3	7932 Kennedy Road, Markham	230/27.6kV	4 x 50/83 MVA	1992;2004	16,059,336.04	12,044,502.03	n/a
Richmond Hill TS#1	150 Hwy. 7 E, Richmond Hill	230/27.6kV	2x 75/125 MVA	1992	9,470,881.99	5,682,529.19	n/a
Richmond Hill TS#2	160 Hwy. 7 E, Richmond Hill	230/27.6kV	2 x 50/83 MVA	2002	8,562,153.33	7,277,830.33	n/a
Vaughan TS#1	8000 Dufferin St, Concord	230/27.6kV	4 x 75/125 MVA	1992;2006	22,912,742.57	17,757,375.49	n/a
Vaughan TS#2	7301 Weston Rd. (1 Centry Pl.), Woodbridge	230/27.6kV	2 x 75/125 MVA	1992	10,859,034.50	6,515,420.70	n/a
Vaughan TS#3	6531 Rutherford Rd., Woodbridge	230/27.6kV	2 x 75/125 MVA	2001	15,275,991.81	12,602,693.24	n/a

(f) Refer to Schedule SEC 16-1 for the Spare Transformer Business Case and Schedule SEC 16-2 for the Planning Philosophy Report.

The costs of the planned spare power transformers are as follows:

<u>75/125 MVA Spare</u>	<u>50/83 MVA Spare</u>
2007 - \$267,000	2009 - \$3,000,000
2008 - \$2,436,000	
2009 - \$478,000	

(g) Schedules SEC 16-3 and SEC 16-4 are provided in response to this interrogatory.

(h) The information requested is set out in Table SEC 16-4.

**Table SEC 16-4: PowerStream Distribution Stations**

<b>Municipal Stations</b>							
Baythorn M.S.	227 Baythorn Drive, Thornhill	27.6/8.32kV	2 x 9 MVA	1976	645,229.07	-	n/a
Amber M.S.	3451 14th Avenue, Markham	27.6/13.8kV	1 x 15MVA; 1 x 9MVA	1972	653,062.46	-	n/a
John M.S.	397 John Street, Thornhill	27.6/13.8kV	1 x 9MVA; 1 x 12MVA	1974	672,478.33	-	n/a
Morgan M.S.	30 Morgan Avenue, Thornhill	27.6/8.32kV	2 x 4.5 MVA	1977	379,208.95	-	n/a
Concord MS	Corner of Keele St. & Administration Rd.	27.6/8.32kV	1 x 15MVA	1970	250,530.71	-	n/a
Rainbow MS	S/S of Hwy. #7, west of Martin Grove	27.6/13.8kV	1 x 10MVA	1970	168,962.57	-	2011
Elders MS	S/S Langstaff, w/o Hwy. #27	27.6/8.32kV	1 x 5MVA	1958	81,568.14	-	2010
King MS	Corner of Keele St. & King-Vaughan Town Line	27.6/8.32kV	1 x 5MVA	1961	81,568.13	-	n/a
Aurora MS#1	135 Edward Street, Aurora	44/13.8kV	2 x 15MVA	1968	913,530.62	-	n/a
Aurora MS#2	21 Old Yonge Street, Aurora	44/13.8kV	1 x 15MVA	1979	233,652.42	-	n/a
Aurora MS#3	15459 Bathurst Street, Aurora	44/13.8kV	2 x 15MVA	1989	582,314.30	213,515.24	n/a
Aurora MS#4	14025 Bathurst Street, Aurora	44/13.8kV; 27/13.8kV	2 x 15MVA	1973	1,065,579.79	-	n/a
Aurora MS#5	15560 Bayview Ave, Aurora.	44/13.8kV	2 x 15MVA	1996	1,233,608.36	740,165.02	n/a
Aurora MS#6	14778 Bayview Ave, Aurora	44/13.8kV; 27/13.8kV	2 x 15 MVA	1997	1,278,787.99	809,899.06	n/a
Aurora MS#7	15521 Leslie St., Aurora	44/27.6 kV	1 x 10MVA	2007	1,921,832.00	1,857,770.93	n/a
Aurora MS#8	15267 Leslie St., Aurora	44/27.6 kV	1 x 10MVA	2008	335,326.66	335,326.66	n/a

- (i) PowerStream does not install individual suite meters in residential complexes as these are defined in the *Residential Tenancies Act, 2006*.
- (j) Please refer to Table SEC 16-5. As part of PowerStream's normal capital investment process, the detailed 2010 capital budget will not be completed until Q4 2009.

**Table SEC 16-5: GIS Expenditures**

<b>Year</b>	<b>Amount (\$000)</b>	<b>Description</b>
2006 Actual	897	GIS implementation, consolidation, data conversion
2007 Actual	53	GIS implementation, consolidation, data conversion
2008 Actual	361	implementation of ArcFM Designer
2009 Forecast	101	software enhancements - implementation of ArcGIS Server

- (k) The costs to relocate two control rooms to a single control room in the new head office are incremental to the costs of the new head office.
- l) PowerStream adopts a centralized approach to the management and delivery of information and related services. As such costs for corporate wide services such as print/copy, cell phones and the corporate telephone system are managed by the Information Services department (IS).

The IS department consists of 17 approved FTEs including a Director and two Managers. The 2009 plan included in PowerStream's Application contains no major changes in 2009 from 2007 or 2008. The department is split into two main areas:

- Operations & Support
- IS Projects & Solutions

The Operations & Support group installs, maintains and supports the computing infrastructure and users. The IS Projects and Solutions group provides project management and business analysis services for IS related projects, typically driven by the business units.

Vendors, contractors and consultants are utilized to augment the current level of expertise, and provide knowledge transfer with respect to new processes and technology

Table SEC 16-6 below lists PowerStream's IT expenses.

**Table SEC 16-6: IT Operating Expenses**

Description	2007 Actual	2008 Actual	2009 Planned
Communications - Voice and Data	\$ 759,972	\$ 978,101	\$ 885,000
Computer Hosting Services	\$ 195,519	\$ 148,250	\$ 140,000
Contract & Consulting	\$ 156,295	\$ 204,513	\$ 350,000
Hardware Maintenance Agreements	\$ 25,679	\$ 73,293	\$ 126,000
Staff Training and Development	\$ 62,678	\$ 42,325	\$ 72,250
Staff labour costs	\$1,138,221	\$1,261,915	\$1,383,485
PC/Printer Repairs and Supplies	\$ 80,996	\$ 89,017	\$ 80,000
Photocopy Supplies & Lease	\$ 115,224	\$ 75,411	\$ 100,000
Settlement / EBT	\$ 148,317	\$ 168,570	\$ 165,000
Software Maintenance Agreements	\$ 981,114	\$ 565,634	\$1,215,000
<b>Grand Total</b>	<b>\$3,664,015</b>	<b>\$3,607,029</b>	<b>\$4,516,735</b>

The increase in IT operating expense is due mainly to software maintenance costs related to the addition and expansion of software systems, in particular the Outage Management System and the Geographical Information System.

**Table SEC 16-7 IT Department Staffing**

	2007	2008	2009
Approved FTEs	17	17	17

The approved staffing level remains constant at 17 FTEs. In 2007 and 2008 there have been vacancies at times during the year. Contract and temporary staff have been used to backfill these positions. In 2009 the entire FTEs of 17 are expected to be filled by full time employees.

**Table SEC 16-8: IT Capital Expenditures (\$000)**

<b>Description</b>	<b>2007 Actual</b>	<b>2008 Actual</b>	<b>2009 Budget</b>
<b>4a - Information Technology Enhancements</b>	2,139	444	823
<b>4b - CIS Enhancements</b>	872	353	1,351
<b>4c - Financial System Enhancements</b>	1,407	939	303
<b>4d - New Computer Equipment / Replacement</b>	420	680	800
<b>4f - Software Purchase</b>	231	217	297
<b>TOTAL</b>	<b>5,069</b>	<b>2,633</b>	<b>3,574</b>

For PILS impacts of IT expenditures please see PowerStream's response to Staff - 52.

- m) In 2009 PowerStream will be purchasing an IBM P550 server at a cost of \$86,000 for its customer information and billing system. This will replace the existing IBM P650 which will be fully depreciated by the 2nd quarter of 2009. The expected salvage value of the old server is \$1,500.
- n) Please see the response to Staff 46.