#### EB-2015-0004

**IN THE MATTER** of the *Ontario Energy Board Act 1998*, Schedule B to the *Energy Competition Act*, 1998, S.O. 1998, c.15;

**AND IN THE MATTER OF** an Application by Hydro Ottawa Limited for an Order or Orders approving just and reasonable distribution rates and other service charges for the distribution of electricity, effective January 1, 2016.

#### **INTERROGATORIES**

#### FROM THE

#### SCHOOL ENERGY COALITION

#### Exhibit 1 (A) - Administration

#### 1-SEC-1

Attached is are two tables, the first comparing the most recent (2013) results of the twenty largest Ontario distributors, including the Applicant, and the second comparing the most recent results of the ten largest Ontario distributors, including the Applicant. With respect to these comparison tables:

- a. Please identify any distributors on either list that the Applicant feels are not appropriate comparators, and provide reasons for that conclusion.
- b. With respect to the OEB three-year average efficiency assessment:
  - i. Please confirm that the Applicant's three year OEB efficiency assessment is 8<sup>th</sup> out of the ten largest LDCs, and 13<sup>th</sup> out of the twenty largest LDCs , at 4.5% over expected costs for 2011-2013.
  - ii. Please confirm that out of the ten largest, the Applicant only outperforms the two outliers, Toronto Hydro and Hydro One, and that on average the other large LDCs, other than the outliers, were able to keep their three year average efficiency at 7.46% below expected costs, more than 12% better than the Applicant.
  - iii. Please explain in detail the Applicant's strategy for improving on this performance, and describe how that strategy is implemented in the Application.

- iv. Please provide details of all steps taken by the Applicant to determine how the seven other distributors ahead of the Applicant in efficiency have been able to achieve that performance, and how what the Applicant has learned from those investigations has been implemented in the Application.
- c. With respect to the 2013 OEB efficiency assessment:
  - i. Please confirm that the Applicant's 2013 efficiency assessment, at 8.5% above expected costs, is again 8<sup>th</sup> out of the ten largest LDCs, but is 15<sup>th</sup> out of the twenty largest LDCs.
  - ii. Please confirm that, of all 73 LDCs, the 8.5% over expected costs of the Applicant in 2013 was 54<sup>th</sup> out of 73.
  - iii. Please explain in detail the Applicant's strategy for reversing the negative trend in efficiency, and describe how that strategy is implemented in the Application.
- d. With respect to cost per customer and cost per km. of line:
  - i. Please explain why, on the twenty LDC comparison, the Applicant's cost per customer is 2.9% below the average of the comparators other than the two outliers, but the Applicant's cost per km. of line is 18.9% above the average of the others excluding the outliers.
  - ii. Please provide any data available to the Applicant that provides a quantitative relationship between these differences and any external factors (such as density, weather, vegetation cover, etc.)
- e. With respect to OM&A per customer and Distribution Revenue per customer:
  - i. Please confirm that Hydro Ottawa has both OM&A per customer and Distribution Revenue per customer higher than the other seven of the top ten LDCs (other than Toronto Hydro and Hydro One).
  - ii. Please provide details of any data inconsistencies or other anomalies known to the Applicant that would make these comparisons incorrect.
  - Please confirm that the Applicant's growth in OM&A per customer, at 59.77% since 2007, is the highest of any of the twenty largest LDCs, including the outliers, and is more than double the average of the other 19 large LDCs. Please explain the factors unique to Hydro Ottawa that are the cause of this result.

- iv. Please confirm that the Applicant's growth in Distribution Revenue per customer, at 12.65% since 2007, is an average of 2.01% per year for those six years. Please explain why that rate is higher than the growth of the other large LDCs (excluding Toronto Hydro and Hydro One), at 1.44% per year. Please explain the factors unique to Hydro Ottawa that are the cause of this result.
- v. Please provide any data or other information in the possession of the Applicant explaining these relative numbers. Please provide details of any strategy the Applicant has to bring its OM&A per customer and Distribution Revenue per customer in line with the other large distributors.
- f. Please confirm that Hydro Ottawa's 2013 capital additions relative to depreciation, at 350.4%, are higher than all of the other large LDCs except Cambridge and Thunder Bay, and significantly higher than the average of all of the large LDCs, at 233.15%. Please explain the factors unique to Hydro Ottawa that were the cause of this high level of spending, but were not also applicable to the other large LDCs.

## 1-SEC-2

[Ex. A/2/1, p. 4] Please provide evidence benchmarking the weather-related cost effects cited with the costs of other Ontario LDCs in similar and diverse weather areas.

## 1-SEC-3

[Ex. A/2/1, p. 8] Please provide a list of all of the "new customer services" to be implemented during the 2016-2020 period. For each such new service, please provide:

- a. The full initial and ongoing costs of implementing that new service.
- b. Details of the benefits to the customers of that service.
- c. All customer survey or other information showing the value customers place on the proposed new service.

#### 1-SEC-4

[Ex. A/2/1, p. 11] Please advise the source of the figure 245% in the original evidence. Please confirm that the Application is proposing the spending of 283% of depreciation in new capital over the five years 2016-2020.

#### 1-SEC-5

[Ex. A/2/1, p. 13] Please confirm that, based on current forecasts in Hydro Ottawa's possession, Hydro Ottawa's cost of capital is expected to decline over the years 2016-2018, but increase for the years 2019-2020. Please provide all cost of capital forecasts (debt or equity) in the possession of Hydro Ottawa, including all internally generated cost of capital analyses, covering all or any of the period 2016-2020.

#### 1-SEC-6

[Ex. A/2/1, p. 13] Please confirm that Hydro Ottawa is not providing any new evidence on a productivity factor specific to Hydro Ottawa. Please explain why the Applicant believes that the average of the four expert opinions is to be preferred over the Board's decision to use 0% productivity.

## 1-SEC-7

[Ex. A/2/1, p. 13 and I/1/2, p. 2 et seq.] Please provide complete details on the revenue requirement impact of the Facilities Implementation for each of 2016 through 2020 if the spending is in the amounts, and at the times, currently forecast. Please provide full calculations of each year's revenue requirement impact. Please advise how much of this impact, if any, is included in the forecast revenue requirement and rates in the Application. Please calculate the rate impact, by class and by year, of this additional revenue requirement.

# 1-SEC-8

[Ex. A/2/1, p. 23] Please confirm that the Applicant is seeking a weighted average rate increase of 10.9% in 2016, and 33.1% over the five years to 2020, plus Y factors and Z factors currently expected to cause those rate increases to be larger.

## 1-SEC-9

[Ex. A/2/1, p. 24] Please confirm that a typical school in Ottawa with a load of 100 kW pays an annual distribution bill in 2015 of \$7,412.76 (\$260.82 per month fixed plus \$356.91 variable), and under this Application would see that annual distribution bill increase in 2020 by 45.6% to \$10,791.60. Please confirm that the total cumulative increase in distribution charges over the five years for that school is \$10,814.56. Please provide calculations to show the expected impact on those figures of the Y factor proposed, any currently forecast Z factor for Hydro One payments, and the current forecast of the impact of the 2019 and 2020 adjustments to inflation and cost of capital.

# 1-SEC-10

[Ex. A/3] With respect to the Applicant's customer engagement:

- **a.** Please provide a breakdown of all costs incurred, or to be incurred, by the Applicant for customer engagement activities (including planning, implementation, regulatory compliance, and supervision) in each of 2014, 2015, and 2016 including but not limited to external costs such as consulting fees, and internal costs such as staff assigned to planning or implementation activities.
- b. Please advise at what point in any of its surveying, polling and other customer engagement did the Applicant advise its customers that it was proposing a 33.1% rate increase, and ask them if they support or oppose a rate increase of that magnitude?

### 1-SEC-11

[Ex. A/4, Attach. I] With respect to the 2014 Annual Report:

a. P. 3. Please file the document "2012-2016 Strategic Direction: Creating Long Term Value" and any updates of that document.

- b. P. 7. Please provide a table showing the kwh. and kW per customer for each rate class for the period 2006-2020 (2006-2014 actuals, 2015-2020 forecasts).
- c. P. 10. Please provide a detailed breakdown of all costs and savings associated with getting 122,000 customers subscribed to MyHydroLink, and getting 86,000 signed up for e-billing. Please forecast those costs and savings, together with the numbers of customers subscribed and signed up, as the case may be, for the period 2016-2020.
- d. P. 16. Please provide the forecast of trades and technical requirements to 2024.
- e. P. 16. Please provide the document "Retiree and Older Worker Engagement Strategy" (also called elsewhere "Prime Time"), or, if it is not in one document, the reports, memoranda, presentations or other documents that together make up that formal strategy.
- f. P. 17. Please provide the most recent internal cost/benefit analysis (or update of that analysis) for the Facilities Rationalization Plan.
- g. P. 41. Please provide a detailed explanation as to why "risks arising from negative customer and media perceptions...might become more prominent in the context of Hydro Ottawa's application to the OEB for a rebasing of its rates for the years 2016-2020".
- h. P. 84. Please confirm that the refinancing of \$200 million of debt, previously at 4.930%, at a new rate of 2.614%, generates annual reductions in interest costs of about \$4.6 million. Please confirm that this reduction is an offset to the other costs that are increasing rates.

### 1-SEC-12

[Ex. A/4, Attach. D] With respect to the Standard & Poors Rating Report:

- a. Please provide the most recent ratings report from this company.
- b. Please estimate the increase in the cost of debt to the electricity distribution company resulting from each of:
  - i. The "increasing exposure to non-related operations"; and
  - ii. The two major capex programs listed on page 2.

#### 1-SEC-13

[Ex. A/8, Attach. B, p. 8] Please provide the most recent "business plan approved by Holdco" and the documents, presentations or other materials used to obtain the approval of this

Application by Holdco.

## Exhibit 2 (B) – Rate Base

## 2-SEC-14

[Ex. B/1/1, p. 2] Please confirm that the Applicant is proposing an increase of Gross Assets from \$571.3 million at the beginning of 2012 to \$1,391.0 million (\$1,277 million plus \$114 million IFRS adjustment in 2014) at the end of 2020, for an increase in Gross Assets of 143.5% over nine years, or about 10.5% per year. Please confirm that the Applicant is proposing an increase in the net book value of its assets from \$534.5 million at the beginning of 2012 to \$977.3 million at the end of 2020, for an increase in net book value of 82.9% over nine years, or about 7% per year. Please provide all information in the possession of the Applicant comparing these proposed increases in gross and net assets to other Ontario LDCs over the same or any other period.

# 2-SEC-15

[Ex. B/1/2] With respect to the Distribution System Plan:

- a. P. 32. Please provide details of the status of, and results from, the Operational Process Liaison Committee.
- b. P. 32. Please provide a copy of the "Lean review" referred to.
- c. P. 33-34. For each of the five new technologies listed under the heading "Increased Use of New Technology", please provide a table showing all actual and forecast costs and savings or other benefits associated with the new technology, broken down by year until at least 2020. If there are business cases or other cost/benefit analyses for any of those new technologies, please provide those documents.
- d. P. 37. With respect to the "need for additional capacity in the Lisgar TL area":
  - i. Please provide the most up to date estimate of all costs associated with these projects, whether those costs are capital or operating costs of Hydro Ottawa, or payments to be made to Hydro One.
  - ii. Please provide complete details of all costs associated with these projects that are already included in the revenue requirements and rates proposed in this Application.
  - iii. Please confirm that the Applicant believes these costs will qualify for Z factor treatment during the 2016-2020 period. Please provide the Applicant's best estimate of the Z factor amounts to be claimed, by year, for or relating to these projects.
- e. P. 95 and following. Please provide the numeric data, in spreadsheet format

(preferably the spreadsheet that was actually used to create the graphs), behind Figures 2.2.14, 2.2.16, 2.2.18, 2.2.20, 2.2.22, 2.2.24, and 2.2.26. If the Applicant has any Iowa curves prepared for any of these asset classes, please also provide those curves both in numeric and graphical format.

f. P. 208. Please explain how the DSP responds to the majority of the customers who answered that they are "not willing to pay for further improvements".

## 2-SEC-16

[Ex. B/3/1, p. 2] Please provide the RFP, including Statement of Work, and list of bidders for the lead/lag study. If a contract has been signed for this study, please provide the contract.

## Exhibit 4 (D) – Operating Costs

### 4-SEC-17

[Ex. D/1, Attach. D] With respect to Table 3-3 of the PSE Benchmarking Study, we have attached a table and related spreadsheet preparing calculations based on the consultant's table. With respect to these results:

- a. Please confirm that the calculations in the attachment are correct.
- b. Please confirm that both the Benchmark dollars and the Hydro Ottawa dollars in the original table are in US\$, made equivalent using PPP. If this is not confirmed, please explain how they are made equivalent. Please confirm that this results in the benchmark and the actual/forecast dollars being calculated on a consistent basis. Please restate the table with the US data in US dollars, and the Hydro Ottawa data in Canadian dollars.
- c. Please explain the relationship between the percentage column in the original table (i.e. 50% for 2002) and the dollar figures in each of the other two original columns. Please provide an example calculation to demonstrate this relationship.
- d. Please explain the basis for the forecast of the US benchmark for 2016 through 2020, and explain why the average annual increase of the benchmark in those five years is 3.79%, while the average annual increase of the benchmark from 2002 to 2015 is 2.60%. What assumptions were made with respect to future growth in the benchmark costs that would result in this higher future increase?
- e. Please explain the factors unique to Hydro Ottawa that justify Hydro Ottawa costs increasing over this eighteen year period at a rate of 5.02% per year, compounded annually, when the US benchmark selected by Hydro Ottawa's consultant as being comparable has only increased by 2.92% per year, compounded annually, over the same period.

### 4-SEC-18

[Ex. D/1/2, p. 2] Please provide the Budget Memo referred to.

## 4-SEC-19

[Ex. D/1/6, p. 4] For each of items 3, 4, 5, and 6, please provide a comprehensive list of all costs and benefits for that initiative, by year, up to and including 2020.

### 4-SEC-20

[Ex. D/1/6, p. 12] Please advise which of the school boards that are customers of Hydro Ottawa have been designated as Large Key Accounts.

## 4-SEC-21

[Ex. D/1/7, p. 6] Please advise, with respect to each of Figures 4 and 5, the number of employees actually forecast in the Applicant's model to retire in each year. If there is an algorithm related to the "60% within two years of eligibility" estimate, please provide the actual algorithm together with a description of how it works and how it was derived.

### 4-SEC-22

[Ex. D/1/7, p. 4] Please provide a table showing the number of current employees at each age from 18 to 70 (i.e. not grouped within five year batches).

### 4-SEC-23

[Ex. D/1/8, Appendix 2-K] Please explain why the total compensation cost per unionized employee, \$98,761 in 2014, goes up 5.5% to \$104,168 in 2015, and goes up a further 4.3% to \$108,680 in 2016.

### 4-SEC-24

[Ex. D/2/4, appendix 2-M] Please insert 2012 Actuals into the table in place of Board-approved.

### Exhibit 9 (I) – Deferral and Variance Accounts

### 9-SEC-25

[Ex. I/1/2, p. 4-6] Please confirm that the Applicant is proposing to add to rate base the current market value of land for the new facilities, but to only credit the ratepayers with 50% of the value of the land being used for the existing facilities that those new facilities are to replace. Please explain the policy rationale for this proposal. Please confirm that, with respect to the buildings being replaced, however, the Applicant is proposing that the ratepayers bear 100% of the loss on sale.

### 9-SEC-26

[Ex. I/1/2, p. 7] Please confirm that the proposed account relating to monthly billing is intended to capture both the costs and benefits of monthly billing during the 2016-2020 period. If some of the costs or benefits are already included in the proposed revenue requirements for 2016-2020, please provide an itemized list of all of those costs and benefits so included.

Submitted by the School Energy Coalition July 13, 2015.

Jay Shepherd Counsel for School Energy Coalition

	/ Itility	OEB Efficiency Assessment					Cost per	Cost per	Customers			OM&A/Customer		Dx Revenue/Customer		Capital Assets/Customer		CapAdds/Dep	
	Otimty	2010	2011	2012	2013	3 Year	Customer	km of Line	Current	Growth	% Residential	Current	Change	Current	Change	Current	Change	2013	Average
1	KITCHENER-WILMOT HYDRO	-22.9%	-22.8%	-20.7%	-19.3%	-21.1%	466	22,062	90,018	8.98%	90.37%	\$186.18	23.75%	\$460.79	11.53%	\$2,011.28	23.41%	308.80%	214.82%
2	ENERSOURCE	-9.5%	-16.1%	-9.5%	-10.7%	-12.3%	692	26,742	199,871	8.79%	88.99%	\$274.75	8.35%	\$608.91	-3.97%	\$2,714.81	22.77%	197.90%	162.37%
3	LONDON HYDRO	-16.8%	-10.1%	-11.1%	-11.0%	-10.8%	466	24,430	150,917	6.20%	90.90%	\$210.08	17.83%	\$444.11	15.23%	\$1,594.87	28.59%	149.20%	167.65%
4	HORIZON UTILITIES	-13.0%	-13.7%	-6.9%	-5.5%	-8.8%	499	35,054	238,777	2.70%	91.41%	\$231.28	45.31%	\$458.21	20.31%	\$1,789.42	37.97%	225.60%	197.89%
5	HYDRO ONE BRAMPTON	-5.8%	-7.4%	-9.2%	-5.7%	-7.8%	586	27,565	145,983	15.84%	92.90%	\$162.85	28.34%	\$474.71	-6.99%	\$2,199.91	-6.38%	306.50%	250.47%
6	VERIDIAN CONNECTIONS	-4.7%	-4.5%	2.4%	-4.5%	-2.3%	529	23,757	116,285	6.46%	91.48%	\$221.37	35.93%	\$446.31	5.64%	\$1,720.31	35.78%	231.90%	195.43%
7	POWERSTREAM	-7.4%	-6.4%	1.2%	3.0%	-1.0%	653	29,912	346,618	13.74%	89.61%	\$234.24	38.78%	\$487.43	0.61%	\$2,833.66	43.44%	328.60%	241.53%
8	HYDRO OTTAWA	-0.1%	-2.6%	7.8%	8.5%	4.5%	579	33,222	314,722	9.66%	91.25%	\$239.42	59.77%	\$503.91	12.65%	\$2,176.76	30.97%	350.40%	205.97%
9	TORONTO HYDRO	41.7%	47.7%	45.1%	48.4%	47.0%	924	66,793	734,576	8.04%	88.79%	\$335.51	45.49%	\$773.38	12.88%	\$3,760.77	43.43%	227.40%	223.80%
10	HYDRO ONE NETWORKS	58.6%	57.3%	58.7%	27.6%	47.8%	1,046	10,682	1,220,101	3.98%	90.72%	\$495.58	20.79%	\$1,084.10	24.40%	\$5,097.21	51.57%	226.30%	227.56%
	Averages	2.00%	2.15%	5.77%	3.06%	3.52%	644	30,022		8.44%	90.64%	\$259.13	32.44%	\$574.19	9.23%	\$2,589.90	31.15%	238.83%	208.75%
	Averages w/o H1+Toronto	-10.03%	-10.45%	-5.75%	-5.67%	-7.46%	559	27,843		9.05%	90.86%	\$220.02	32.26%	\$485.55	6.88%	\$2,130.13	27.07%	262.36%	204.52%

Performance Comparisons of Ten Largest LDCs (2013 with change/growth from 2007)

	l Itility	OEB Efficiency Assessment					Cost per	Cost per	Customers			OM&A/Customer		Dx Revenue/Customer		Capital Assets/Customer		CapAdds/Dep	
	Otimty		2011	2012	2013	3 Year	Customer	km of Line	Current	Growth	% Residential	Current	Change	Current	Change	Current	Change	2013	Average
1	KITCHENER-WILMOT HYDRO	-22.9%	-22.8%	-20.7%	-19.3%	-21.1%	466	22,062	90,018	8.98%	90.37%	\$186.18	23.75%	\$460.79	11.53%	\$2,011.28	23.41%	308.80%	214.82%
2	OSHAWA PUC NETWORKS	-21.7%	-18.0%	-14.5%	-17.4%	-16.7%	505	27,050	53,969	5.86%	92.02%	\$207.71	19.14%	\$363.15	-6.49%	\$1,436.07	50.16%	341.80%	264.77%
3	ENERSOURCE	-9.5%	-16.1%	-9.5%	-10.7%	-12.3%	692	26,742	199,871	8.79%	88.99%	\$274.75	8.35%	\$608.91	-3.97%	\$2,714.81	22.77%	197.90%	162.37%
4	LONDON HYDRO	-16.8%	-10.1%	-11.1%	-11.0%	-10.8%	466	24,430	150,917	6.20%	90.90%	\$210.08	17.83%	\$444.11	15.23%	\$1,594.87	28.59%	149.20%	167.65%
5	HORIZON UTILITIES	-13.0%	-13.7%	-6.9%	-5.5%	-8.8%	499	35,054	238,777	2.70%	91.41%	\$231.28	45.31%	\$458.21	20.31%	\$1,789.42	37.97%	225.60%	197.89%
6	BURLINGTON HYDRO	-7.6%	-7.1%	-9.0%	-7.5%	-8.0%	587	25,773	66,704	7.98%	90.53%	\$260.13	26.69%	\$488.62	4.51%	\$1,552.52	21.27%	192.10%	198.13%
7	HYDRO ONE BRAMPTON	-5.8%	-7.4%	-9.2%	-5.7%	-7.8%	586	27,565	145,983	15.84%	92.90%	\$162.85	28.34%	\$474.71	-6.99%	\$2,199.91	-6.38%	306.50%	250.47%
8	CAMBRIDGE/N. DUMFRIES	-10.1%	-7.8%	-3.3%	0.5%	-3.7%	624	28,714	52,212	6.68%	89.53%	\$274.72	53.77%	\$529.45	17.29%	\$1,999.24	21.57%	391.90%	220.61%
9	VERIDIAN CONNECTIONS	-4.7%	-4.5%	2.4%	-4.5%	-2.3%	529	23,757	116,285	6.46%	91.48%	\$221.37	35.93%	\$446.31	5.64%	\$1,720.31	35.78%	231.90%	195.43%
10	POWERSTREAM	-7.4%	-6.4%	1.2%	3.0%	-1.0%	653	29,912	346,618	13.74%	89.61%	\$234.24	38.78%	\$487.43	0.61%	\$2,833.66	43.44%	328.60%	241.53%
11	GUELPH HYDRO	12.4%	14.7%	-2.0%	0.8%	4.2%	608	28,952	52,323	9.65%	91.42%	\$298.11	32.66%	\$527.28	2.14%	\$2,561.05	43.04%	198.30%	265.64%
12	THUNDER BAY HYDRO	9.6%	8.0%	-2.8%	8.2%	4.4%	585	25,631	50,190	1.56%	89.88%	\$264.18	8.28%	\$390.69	11.87%	\$1,728.59	40.68%	358.70%	207.44%
13	HYDRO OTTAWA	-0.1%	-2.6%	7.8%	8.5%	4.5%	579	33,222	314,722	9.66%	91.25%	\$239.42	59.77%	\$503.91	12.65%	\$2,176.76	30.97%	350.40%	205.97%
14	NIAGARA PENINSULA ENERGY	5.4%	5.2%	10.2%	1.1%	5.4%	672	17,408	51,213	2.03%	90.02%	\$276.34	5.12%	\$572.30	3.66%	\$2,176.45	30.39%	257.20%	190.70%
15	WATERLOO NORTH HYDRO	-3.1%	6.4%	4.3%	10.6%	7.0%	728	25,066	54,165	9.30%	88.57%	\$244.24	39.23%	\$614.81	19.17%	\$3,279.02	74.26%	280.90%	282.40%
16	GREATER SUDBURY HYDRO	-2.4%	14.1%	16.7%	4.8%	11.9%	560	26,887	47,074	9.05%	90.50%	\$258.34	-27.97%	\$577.89	18.06%	\$1,577.16	14.72%	163.20%	163.27%
17	OAKVILLE HYDRO	7.6%	12.4%	10.6%	13.8%	12.0%	730	26,377	64,793	8.20%	90.80%	\$270.31	54.75%	\$565.55	5.24%	\$2,421.98	42.23%	132.00%	204.12%
18	ENWIN UTILITIES	17.8%	16.8%	23.9%	10.3%	16.9%	652	48,500	86,018	1.49%	90.25%	\$263.76	-23.43%	\$597.17	10.86%	\$2,387.23	15.49%	271.60%	161.84%
19	TORONTO HYDRO	41.7%	47.7%	45.1%	48.4%	47.0%	924	66,793	734,576	8.04%	88.79%	\$335.51	45.49%	\$773.38	12.88%	\$3,760.77	43.43%	227.40%	223.80%
20	HYDRO ONE NETWORKS	58.6%	57.3%	58.7%	27.6%	47.8%	1,046	10,682	1,220,101	3.98%	90.72%	\$495.58	20.79%	\$1,084.10	24.40%	\$5,097.21	51.57%	226.30%	227.56%
	Averages	1.40%	3.31%	4.59%	2.78%	3.43%	635	29,029		7.31%	90.50%	\$260.46	25.63%	\$548.44	8.93%	\$2,350.92	33.27%	233.15%	212.32%
	Averages w/o H1+Toronto	-4.02%	-2.16%	-0.67%	-1.12%	-1.46%	596	27,950		7.45%	90.58%	\$243.22	24.79%	\$506.18	7.85%	\$2,120.02	31.69%	260.37%	210.84%

#### Performance Comparisons of Twenty Largest LDCs (2013 with change/growth from 2007)

Year	Percent Below Combined Sample Total Cost Econometric Benchmark	Total Cost Econometric Benchmark, \$M	Percent Increase Expected Cost	Total Cost Hydro Ottawa, \$M	Percent Increase Hydro Ottawa Cost		
2002	50%	\$193		\$117			
2003	56%	\$199	3.11%	\$113	-3.42%		
2004	56%	\$203	2.01%	\$116	2.65%		
2005	55%	\$211	3.94%	\$121	4.31%		
2006	50%	\$214	1.42%	\$129	6.61%		
2007	48%	\$222	3.74%	\$137	6.20%		
2008	41%	\$231	4.05%	\$153	11.68%		
2009	45%	\$236	2.16%	\$151	-1.31%		
2010	45%	\$249	5.51%	\$159	5.30%		
2011	47%	\$255	2.41%	\$159	0.00%		
2012	35%	\$251	-1.57%	\$177	11.32%		
2013	29%	\$253	0.80%	\$189	6.78%		
2014	22%	\$260	2.77%	\$209	10.58%		
2015	20%	\$269	3.46%	\$219	4.78%		
2016	18%	\$279	3.72%	\$232	5.94%		
2017	17%	\$290	3.94%	\$245	5.60%		
2018	16%	\$301	3.79%	\$257	4.90%		
2019	15%	\$312	3.65%	\$267	3.89%		
2020	14%	\$324	3.85%	\$282	5.62%		
	Total Increase		67.88%		141.03%		
	Avg. Annual Increase		2.92%		5.02%		

# Table 3-3 Augmented Data