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January 29, 2010

Kirsten Walli  
Board Secretary  
Ontario Energy Board  
P.O. Box 2319  
27<sup>th</sup> Floor  
2300 Yonge Street  
Toronto ON M4P 1E4

Re: **Board File No.: EB-2008-0235 London Hydro Inc. – 2009 Rate  
Rebasing Application**

Dear Ms. Walli:

Pursuant to the Decision of August 21, 2009 in the above-noted proceeding, please find attached London Hydro's study of its cost allocation methodology and rate design proposals as they relate to the cogeneration customer class and the GS 50- 4999 kW customer class.

Two hard copies of this report will be forwarded to the Board today.

Sincerely,

Dave Williamson  
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*Our Commitment is To Our Customers*

**LONDON HYDRO INC.**  
**2009 ELECTRICITY DISTRIBUTION RATE APPLICATION**  
**Board File EB-2008-0235**  
**STUDY OF COGENERATION RATES**

**INTRODUCTION**

As instructed on page 44 of the Boards Decision of August 21, 2009 in the above proceeding, London Hydro is submitting to the Board the following study of its cost allocation methodology and rate design proposals as they relate to the cogeneration customer class and the GS 50-4999 kW customer class.

**Excerpts from the Boards Decision**

***Co-Generation Rates***

London is one of only a few distributors with a distinct Co-generation customer class. Board staff observed that the Monthly Service Charge for the Co-generation class is more than ten times as high as the charge proposed for a comparable customer without co-generation. Similarly, the volumetric rate is nearly three times higher. These differences are larger than would be expected from the difference in the revenue to cost ratios. The volumetric Standby Charge may apply in some months, and is considerably higher as well. Board staff questioned whether there may be a flaw in the cost allocation model as it applies to customers with their own generation, and submitted that the Board should require London to address this question in its next application for distribution rate re-basing.

LPMA supported London's proposal to move the Co-generation class to the top of its range in 2009. No other parties made submissions on this matter.

In its reply submission, London submits that any flaw in the model would apply to other distributors' results as well, and should be reviewed in a generic industry-wide process.

**Board Findings**

The Board notes the significant difference in rates between customers with co-generation and other customers in the GS 50-4999 kW class, and that the two classes will be at opposite ends of the Board's target ranges after the current rebalancing is completed in 2010. The Board concludes there is merit in Board staff's suggestion that this issue be examined further. The Board therefore directs London to conduct a study of its cost allocation methodology and rate design proposals as they relate to the cogeneration class and the GS 50-4999 kW class and to provide the results of that study to the Board no later than six months from the date of this Decision and Order.

## **Review of Rate Application Information Filed**

In responding to the Boards comments and findings as indicated on page 44 of the Board Decision of August 21, 2009 it is helpful and informative to first review the information that was filed in the application and subsequent interrogatory responses and the draft rate order.

### **Cost Allocation**

The costs and revenue requirement assigned to the to the cogeneration class and the GS 50-4999 kW class were based upon the Cost Allocation Study and Informational filing submitted by London Hydro in March of 2007 utilizing the Boards Cost Allocation model and methodology. In response to Board Staff IR # 43 (a) London Hydro provided an electronic copy of this filing (EB-2007-0002) for the Board record.

Subsequent to the 2007 Cost Allocation filings, the Board determined that further adjustments to the methodology and results were required with respect to the treatment of transformer ownership allowances. During the course of our rate proceeding, these adjustments and their results were referred to by Board Staff as the VECC alternate method as it was the Vulnerable Energy Consumers Council that proposed these adopted changes.

In response to VECC IR # 42 (a) London Hydro submitted the results of its Cost Allocation filing with the adjustments made for the proposed treatments of transformer ownership allowances as per the VECC alternate method. The following table is the data that was provided in response to VECC IR # 42 (a). For purposes of focusing this analysis on the two rate classes that are the subject of this study, the data for the other rate classes has been removed from the table. Additionally, the analysis shows the combined data for Cogeneration and Standby as this additional information is essential for a complete analysis of this study.

**Class Revenue, Cost Analysis, and Return on Rate** VECC ALTERNATE COST ALLOCATION METHOD - PER VECC IR 42 A)

Rate Base Assets	GS > 50 (blended TOU and Non-TOU)	Combined Stand-By and CoGen	Stand-By	CoGen
<b>crev</b> Distribution Revenue (sale)	\$9,314,837	\$250,708	\$0	\$250,708
Transformer Discounts	(\$867,320)	(\$101,869)	(\$91,858)	(\$10,011)
Distribution Revenue (actual Standby sale)	\$0	\$339,049	\$339,049	
<b>mi</b> Miscellaneous Revenue (mi)	\$654,257	\$10,021	\$7,271	\$2,750
Standby distribution rev adj (in misc rev)	(\$39,535)	(\$605)	(\$439)	(\$166)
<b>Total Revenue</b>	<b>\$9,062,239</b>	<b>\$497,304</b>	<b>\$254,023</b>	<b>\$243,281</b>
<b>Expenses</b>				
<b>di</b> Distribution Costs (di)	\$2,610,151	\$90,851	\$70,717	\$20,134
<b>cu</b> Customer Related Costs (cu)	\$403,439	\$2,779	\$0	\$2,779
<b>ad</b> General and Administration (ad)	\$1,457,416	\$45,415	\$34,325	\$11,090
<b>dep</b> Depreciation and Amortization (dep)	\$3,166,754	\$101,429	\$76,866	\$24,563
<b>INPUT</b> PILs (INPUT)	\$1,614,664	\$51,679	\$39,296	\$12,383
<b>INT</b> Interest	\$1,787,830	\$57,222	\$43,511	\$13,711
<b>Total Expenses</b>	<b>\$11,040,254</b>	<b>\$349,375</b>	<b>\$264,715</b>	<b>\$84,660</b>
<b>Direct Allocation</b>	<b>(\$512,245)</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>NI</b> Allocated Net Income (NI)	\$2,194,157	\$70,227	\$53,400	\$16,827
<b>Revenue Requirement (includes NI)</b>	<b>\$12,722,166</b>	<b>\$419,602</b>	<b>\$318,115</b>	<b>\$101,487</b>
<b>Rate Base Calculation</b>				
<b>Net Assets</b>				
<b>dp</b> Distribution Plant - Gross	\$70,039,176	\$2,310,333	\$1,766,281	\$544,052
<b>gp</b> General Plant - Gross	\$9,077,278	\$290,532	\$220,916	\$69,616
<b>accum dep</b> Accumulated Depreciation	(\$34,033,675)	(\$1,157,924)	(\$890,006)	(\$267,918)
<b>co</b> Capital Contribution	\$0	\$0	\$0	\$0
<b>Total Net Plant</b>	<b>\$45,082,779</b>	<b>\$1,442,941</b>	<b>\$1,097,191</b>	<b>\$345,750</b>
<b>Directly Allocated Net Fixed Assets</b>	<b>(\$6,586,361)</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>COP</b> Cost of Power (COP)	\$104,376,452	\$659,350	\$0	\$659,350
OM&A Expenses	\$4,471,006	\$139,045	\$105,042	\$34,003
Directly Allocated Expenses	\$0	\$0	\$0	\$0
<b>Subtotal</b>	<b>\$108,847,458</b>	<b>\$798,395</b>	<b>\$105,042</b>	<b>\$693,353</b>
<b>Working Capital</b>	<b>\$16,327,119</b>	<b>\$119,759</b>	<b>\$15,756</b>	<b>\$104,003</b>
<b>Total Rate Base</b>	<b>\$54,823,536</b>	<b>\$1,562,700</b>	<b>\$1,112,947</b>	<b>\$449,753</b>
<b>Equity Component of Rate Base</b>	<b>\$24,670,591</b>	<b>\$703,215</b>	<b>\$500,826</b>	<b>\$202,389</b>
<b>Net Income on Allocated Assets</b>	<b>(\$1,465,770)</b>	<b>\$147,929</b>	<b>(\$10,692)</b>	<b>\$158,621</b>
<b>Net Income on Direct Allocation Assets</b>	<b>(\$200,825)</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Net Income</b>	<b>(\$1,666,595)</b>	<b>\$147,929</b>	<b>(\$10,692)</b>	<b>\$158,621</b>
<b>RATIOS ANALYSIS</b>				
REVENUE TO EXPENSES %	71.23%	118.52%	79.85%	239.72%
EXISTING REVENUE MINUS ALLOCATED COSTS	(\$3,659,927)	\$77,702	(\$64,092)	\$141,794
RETURN ON EQUITY COMPONENT OF RATE BASE	-6.76%	21.04%	-2.13%	78.37%

As indicated in the above VECC alternate cost allocation results, when viewed individually, the revenue to cost ratios for the Cogen and Standby Rates produces results of 239.72% and 79.85% respectively. When the data for these two categories is combined the result is 118.52% which falls within the Boards target range of 80% to 180%.

Cogen and Standby categories were split within the Cost Allocation Model for the purposes of deriving a rate for the two components, but in practice, Standby is not a standalone customer class. Cogen is the customer class and Standby is a rate that

applies to that class. In practice, one does not exist without the other and for the purposes of determining customer class total revenue requirement and customer class rate impacts, the two must be combined.

The following table is a high level analysis of the data from the Cost Allocation study presented above on page 3, and expressed on a per customer basis and a per kW basis to determine if any apparent anomalies exist in this data.

<b>Customer Class Data - From Cost Allocation</b>	<b>GS &gt; 50 (blended TOU and Non-TOU)</b>	<b>Combined Stand-By and CoGen</b>	<b>Multiple</b>
	<b>A</b>	<b>B</b>	<b>B/A</b>
<b># of Customers</b>	<b>1,553</b>	<b>4</b>	<b>0.003</b>
<b>kW - incremental</b>	3,801,956	23,256	
<b>kW - standby</b>		\$155,066	
<b>Total kW</b>	<b>3,801,956</b>	<b>178,322</b>	<b>0.047</b>
<b>Average kW per customer</b>	<b>2,448</b>	<b>44,581</b>	<b>18.210</b>

  

<b>Costs Per Customer</b>			
<b>Total Expenses</b>	\$7,109	\$87,344	12.3
<b>Revenue Requirement (includes NI)</b>	\$8,192	\$104,901	12.8
<b>Total Net Plant</b>	\$29,029	\$360,735	12.4
<b>Total Rate Base</b>	\$35,302	\$390,675	11.1

  

<b>Costs Per KW</b>			
<b>Total Expenses</b>	\$2.90	\$1.96	0.7
<b>Revenue Requirement (includes NI)</b>	\$3.35	\$2.35	0.7
<b>Total Net Plant</b>	\$11.86	\$8.09	0.7
<b>Total Rate Base</b>	\$14.42	\$8.76	0.6

As indicate in the above analysis there is a significant amount of consistency in the data when expressed on either a per customer basis or a per kW basis. Costs per customer are consistently higher by a multiple of 11 to 13 due to the variance in size of customer based on demand levels.

Costs per kW are consistently lower at .7% due to higher per customer volumes in the Cogen class, and the fact that certain costs are base on customer numbers versus demand levels.

## Customer Data

To assist in understanding the specific nature of the customers represented by these two rate classes London Hydro has taken the forecast customer data for the 2009 Test Year as provided on Page 35 of Appendix B, in the 2009 Draft Rate Order filed September 4, 2009.

**Forecast Data For 2009 Test Year Projection**

Class	Unit of Measure	2009 Test Year
GS 50 to 4,999 kW	# of Annualized Customers	19,144
	kW	4,093,815
	Customer Avg Monthly - kW demand	214
GS 50 to 4,999 kW (Co-Generation)	# of Customers	36
	kW - incremental	43,849
	Standby Power kW - standby	154,800
	kW - Total	198,649
	Customer Avg Monthly - kW demand	5,518

As indicated in the above table, the 3 customers that compose the Cogen rate class are significantly (approx. 26 times) larger than the average customer in the GS 50 to 4,999 kW class based upon average customer monthly demand. This observation provides some insight into the significant disparity in rates between these two classes.

The 3 customers in the Cogen class would all be classified as Large Use Customers in the absence of having their own generation facilities.

The above data indicates that any comparison of rates between the GS 50 to 4,999 kW class will and should produce a significant disparity in rate structures due to the relative size of the customers involved. A similar disparity would exist in any comparison of GS 50 to 4,999 customers to the Large Use customer class.

The following table provides an analysis of the relative customer sizes for London Hydro within the GS 50 to 4,999 kW customer class for the 2009 test year. The customer billing data indicates that 97.8% of the customers in this class have an average monthly

billing demand level of less than 1000 kW compared to the Cogeneration class average of 5518 kW.

<b>GS 50 to 4,999 kW Customer Class</b>		
<b>Monthly Billing Demand Level - kW</b>	<b># of Customers</b>	<b>%</b>
50 to 500	1,480	92.8%
500 to 1000	79	5.0%
1000 to 1500	17	1.1%
1500 to 2000	10	0.6%
2000 to 2500	1	0.1%
2500 to 3000	4	0.3%
3000 to 3500	3	0.2%
3500 to 4000	1	0.1%
4000 to 4500	-	0.0%
4500 to 5000	-	-
<b>Total</b>	<b>1,595</b>	<b>100%</b>

### **Proportionate Revenue Contributions**

In comparing rate structures and revenue requirements between customer classes, it is useful to determine on a per unit basis the relative total revenue requirement contribution being made by each of these two customer classes. It was established in the Boards Cost Allocation methodology that customer class demand is one of the most significant cost drivers and a primary factor in the allocation of costs and as such any significant disparity in cost recovery per unit of customer demand, may be indicative of incorrect allocation of costs.

The following table is taken from Page 35 of Appendix B, in the 2009 Draft Rate Order filed September 4, 2009.

For purposes of this analysis, only the GS 50 to 4,999 kW and the Cogeneration Class data is presented.

### 2009 Distribution Revenue at 2009 Rates

Class	Annual kW For Dx	Annualized Customers	Fixed Rate	Variable Rate	Fixed Distribution Revenue	Variable Distribution Revenue	Dist. Rev. Before Transf. Allowance	Transf. Discounts	Distribution Revenue After Discounts	Distribution Revenue Per kW Demand
GS 50 to 4,999 kW	4,093,815	19,144	\$ 289.12	\$ 1.6023	\$ 5,534,757	\$ 6,559,366	\$ 12,094,123	\$ (818,824)	\$ 11,275,299	\$ 2.75
GS 50 to 4,999 kW (Co-Generation)	43,849	36	\$ 2,667.75	\$ 4.6542	96,039	204,083	300,122	(26,309)	273,813	6.24
Standby Power	154,800	0	\$ -	\$ 2.3733	-	367,384	367,384	(92,880)	274,504	1.77
Combined Cogen and Standby	198,649	36			\$ 96,039	\$ 571,467	\$ 667,506	\$ (119,189)	\$ 548,317	\$ 2.76

<u>Cost Recovery %</u>	<u>Fixed</u>	<u>Variable</u>
GS 50 to 4,999 kW	49.1%	50.9%
Combined Cogen and Standby	17.5%	82.5%

The above data illustrates the fact that the rate structures between the two classes are very different, but indicates that the revenue contribution on a per kW basis for each of the classes is virtually identical. This observation would indicate that the total revenue requirement for each class as derived from the results of the Cost Allocation study is appropriate. The disparity in fixed vs. variable cost recovery percentages between the two classes would indicate that the fixed charge for the Cogen class should be higher and the variable rates should be lower. This observation lends further support to the fact that the 3 customers in the Cogen rate class are more comparable to the Large Use class than to the GS 50 to 4,999 kW class.

### Rate Design

As indicated in the above table, the current rate design for the Cogen rate class results in significant variations in rates compared to the GS 50 to 4,999 class, but additionally results in a fixed and variable revenue split for the Cogen class that results in a fixed ratio of 17.5% versus London Hydro's utility total of 54%.

The following table demonstrates the rate structures and fixed / variable revenue splits that would result if the GS 50 to 4,999 kW variable rate of \$1.6023 per kW was applied to the variable demand for the Cogen class.



**2009 Distribution Revenue at 2009 Rates**

Class	Annual kW For Dx	Annualized Customers	Fixed Rate	Variable Rate	Fixed Distribution Revenue	Variable Distribution Revenue	Dist. Rev. Before Transf. Allowance	Transf. Discounts	Distribution Revenue After Discounts	Distribution Revenue Per kW Demand
<b>GS 50 to 4,999 kW</b>	<b>4,093,815</b>	<b>19,144</b>	<b>\$ 289.12</b>	<b>\$ 1.6023</b>	<b>\$ 5,534,834</b>	<b>\$ 6,559,520</b>	<b>\$ 12,094,354</b>	<b>\$ (818,824)</b>	<b>\$ 11,275,530</b>	<b>\$ 2.75</b>
GS 50 to 4,999 kW (Co-Generation)	43,849	36	\$ 9,700.31	\$ 1.6023	349,211	70,259	419,470	(26,309)	393,161	8.97
Standby Power	154,800	0	\$ -	\$ 1.6023	-	248,036	248,036	(92,880)	155,156	1.00
<b>Combined Cogen and Standby</b>	<b>198,649</b>	<b>36</b>			<b>\$ 349,211</b>	<b>\$ 318,295</b>	<b>\$ 667,506</b>	<b>\$ (119,189)</b>	<b>\$ 548,317</b>	<b>\$ 2.76</b>

<u>Cost Recovery %</u>	<u>Fixed</u>	<u>Variable</u>
GS 50 to 4,999 kW	49.1%	50.9%
Combined Cogen and Standby	63.7%	36.3%

The above table demonstrates that with a variable rate in the Cogen class the same as the GS 50 to 4,999 kW class, a fixed monthly charge of \$9,700.31 would be required in the Cogen class and a fixed variable split of 63.7% / 36.3 % would result.

Continuing with this analysis, the following table demonstrates the rate structures that would be necessary to produce fixed / variable revenue split in the Cogen class that matches that in the GS 50 to 4,999 kW class.

**2009 Distribution Revenue at 2009 Rates**

Class	Annual kW For Dx	Annualized Customers	Fixed Rate	Variable Rate	Fixed Distribution Revenue	Variable Distribution Revenue	Dist. Rev. Before Transf. Allowance	Transf. Discounts	Distribution Revenue After Discounts	Distribution Revenue Per kW Demand
<b>GS 50 to 4,999 kW</b>	<b>4,093,815</b>	<b>19,144</b>	<b>\$ 289.12</b>	<b>\$ 1.6023</b>	<b>\$ 5,534,834</b>	<b>\$ 6,559,520</b>	<b>\$ 12,094,354</b>	<b>\$ (818,824)</b>	<b>\$ 11,275,530</b>	<b>\$ 2.75</b>
GS 50 to 4,999 kW (Co-Generation)	43,849	36	\$ 7,505.75	\$ 2.0000	270,207	87,698	357,905	(26,309)	331,596	7.56
Standby Power	154,800	0	\$ -	\$ 2.0000	-	309,600	309,600	(92,880)	216,720	1.40
<b>Combined Cogen and Standby</b>	<b>198,649</b>	<b>36</b>			<b>\$ 270,207</b>	<b>\$ 397,298</b>	<b>\$ 667,505</b>	<b>\$ (119,189)</b>	<b>\$ 548,316</b>	<b>\$ 2.76</b>

<u>Cost Recovery %</u>	<u>Fixed</u>	<u>Variable</u>
GS 50 to 4,999 kW	49.1%	50.9%
Combined Cogen and Standby	49.3%	50.7%

The above table demonstrates that with a variable rate in the Cogen class of \$2.00 per kW and a fixed monthly charge of \$7,505.75 a fixed variable split of 49.3% / 50.7% would result.

## Revenue to Cost Ratios

To gain a better understanding of the relative revenue to cost ratios for the GS 50 to 4,999 kW class and the Cogen rate class the following series of tables are presented. These are the tables that were submitted on Pages 36 and 37 of Appendix B, in the 2009 Draft Rate Order filed September 4, 2009. For purposes of this analysis, only the GS 50 to 4,999 kW and the Cogeneration Class data is presented from these tables.

Revenue to Cost Ratios - As per Board Final Decision

Exhibit 8 - Table 1

Customer Class	Total CA Distribution Revenue Minus Transformer Discounts	Total CA Other Revenue Offsets	Total CA Revenues After Transformer Discounts	CA Revenue Requirement Before Transformer Discounts	Cost Allocation Revenue Surplus (Deficit)	Revenue to Cost Ratios Per CA Filing - VECC Alt Method	Revenue Surplus (Deficit) as a % of Distribution Revenue
	A	B	C (A+B)	D	E (C-D)	F (C/D)	G (E/A)
<b>GS 50 to 4,999 kW</b>	\$ 8,447,517	\$ 614,722	\$ 9,062,239	\$ 12,722,166	\$ (3,659,927)	71.2%	-43.3%
GS 50 to 4,999 kW (Co-Generation)	240,697	2,584	243,281	101,490	141,791	239.7%	58.9%
Standby Power	247,191	6,832	254,023	318,115	(64,092)	79.9%	-25.9%
<b>Combined Cogen and Standby</b>	<b>\$ 487,888</b>	<b>\$ 9,416</b>	<b>\$ 497,304</b>	<b>\$ 419,605</b>	<b>\$ 77,699</b>	<b>118.5%</b>	<b>15.9%</b>

OEB Adopted Revenue to Cost Ratio Ranges & London Hydro Results and Final Amounts for 2009 and 2010

Exhibit 8 - Table 2

Customer Class	Target Ranges		London Hydro Results (Table 1)	Variance from 100%	Variance from Range Ceiling or Floor	Adjustment Proposed for 2009	Adjustment Proposed for 2010
	Low	High					
<b>GS 50 to 4,999 kW</b>	80%	180%	71.2%	-28.8%	-8.8%	8.8%	0.0%
GS 50 to 4,999 kW (Co-Generation)	80%	180%	239.7%	139.7%	59.7%	-29.9%	-29.9%
Standby Power	80%	180%	79.9%	-20.1%	0.0%	0.0%	0.0%
<b>Combined Cogen and Standby</b>	<b>80%</b>	<b>180%</b>	<b>118.5%</b>	<b>18.5%</b>	<b>0.0%</b>	<b>-6.4%</b>	<b>-6.4%</b>

Calculation of Distribution Revenue Surplus / (Deficit) Amounts In Existing 2008 Rates and Final Cost Allocation Adjustments

Exhibit 8 - Table 3

Customer Class	2009 Test Year NET Distribution Revenue at Existing 2008 Rates	Distribution Revenue Surplus (Deficit) % Factor (Table 1)	Distribution Revenue Surplus (Deficit) Amount in 2008	Revenue to Cost Ratio Variance from 100% (Table 2)	Distribution Revenue Adjustment Required to Move CA Ratio BY 1%	CA % Adjustment Proposed for 2009 (Table 2)	Distribution Revenue Adjustment 2009	CA % Adjustment Proposed for 2010 (Table 2)	Distribution Revenue Adjustment 2010
	A	B	C (A*B)						
<b>GS 50 to 4,999 kW</b>	<b>9,006,471</b>	<b>-43.3%</b>	<b>(3,902,097)</b>	<b>-28.8%</b>	<b>135,640</b>	<b>8.8%</b>	<b>1,189,295</b>	<b>0.0%</b>	<b>0</b>
GS 50 to 4,999 kW (Co-Generation)	283,256	58.9%	166,862	139.7%	(1,194)	-29.9%	(35,659)	-29.9%	(35,659)
Standby Power	248,222	-25.9%	(64,359)	-20.1%	3,194	0.0%	0	0.0%	0
<b>Combined Cogen and Standby</b>	<b>531,478</b>	<b>19.3%</b>	<b>102,503</b>	<b>18.5%</b>	<b>5,536</b>	<b>-6.4%</b>	<b>(35,659)</b>	<b>-6.4%</b>	<b>(35,659)</b>

Final Revenue to Cost Ratios By Customer Class – 2009 and 2010

Exhibit 8 - Table 4

Customer Class	Target Ranges		London Hydro CA Results	Final 2009	Final 2010
	Low	High			
<b>GS 50 to 4,999 kW</b>	<b>80%</b>	<b>180%</b>	<b>71.2%</b>	<b>80.0%</b>	<b>80.0%</b>
GS 50 to 4,999 kW (Co-Generation)	80%	180%	239.7%	209.9%	180.0%
Standby Power	80%	180%	79.9%	79.9%	79.9%
<b>Combined Cogen and Standby</b>	<b>80%</b>	<b>180%</b>	<b>118.5%</b>	<b>112.1%</b>	<b>105.6%</b>

As illustrated from data taken from the tables presented in London Hydro’s draft rate order, as shown in the table labeled as Exhibit 8 – Table 4, after implementing the proposed cost allocation adjustments for 2009 and 2010 to the above two rate classes, the combined data for the Cogen class indicates that the revenue to cost ratio for that class in 2010 will be 105.6%. As the Board has observed, the two classes will be at opposite ends of the Board’s target ranges after the current rebalancing is completed in 2010. While this is true, the final ratio of 105.6% is well below the ceiling of 180% and the final Cogen class ratio of 105.6% will be the closet ratio to parity of any of the rate classes.

## Customer Cost Comparisons

The GS 50 to 4,999 customer class contains approximately 1600 customers whose demand levels may fall into the range of 50 to 4999 kW per monthly billing cycle. The average monthly billing demand for the class on a customer basis is 214 kW, but because of the broad range of demand levels assigned to this class, the class can contain a large disparity in the type of customer and demand level associated with these different customer types.

This disparity in customer types and demand levels does not exist for the Cogen class. This class has only 3 customers and their standby and incremental demand levels are very similar in nature, with the average total demand requirements for each customer being approximately 5,518 kW of billing demand per month. This same situation exists for the Large Use class in which there are only 3 customers, and their demand levels are similar in nature.

The following table illustrates the total customer fixed and variable charges that would apply to each of these 3 classes based upon existing rate structures and varying monthly demand levels.

Customer Cost Comparison			GS 50 to 4,999 kW	Cogen	Large Use
Monthly fixed charge			289.12	2,667.75	17,479.04
<b>Variable Charge</b>					
Demand - kw	Increm Demand	Standby kW			
1000		1000	\$ 1,602	\$ 2,373	N/A
2000		2000	\$ 3,205	\$ 4,747	N/A
3000		3000	\$ 4,807	\$ 7,120	N/A
4000		4000	\$ 6,409	\$ 9,493	N/A
4999	699	4300	\$ 8,010	\$ 13,458	N/A
6000	1700	4300	N/A	\$ 18,117	\$ 11,581
7000	2700	4300	N/A	\$ 22,772	\$ 13,511
10000	5700	4300	N/A	\$ 36,734	\$ 19,302
Total charge					
Demand - kw	Increm Demand	Standby kW			
1000		1000	\$ 1,891	\$ 5,041	N/A
2000		2000	\$ 3,494	\$ 7,414	N/A
3000		3000	\$ 5,096	\$ 9,788	N/A
4000		4000	\$ 6,698	\$ 12,161	N/A
4999	699	4300	\$ 8,299	\$ 16,126	N/A
6000	1700	4300	N/A	\$ 20,785	\$ 29,060
7000	2700	4300	N/A	\$ 25,439	\$ 30,990
10000	5700	4300	N/A	\$ 39,402	\$ 36,781

The above table illustrates that the customer costs for the Cogen rate class at demand levels over 5000 kW are comparable to the Large Use class. At demand levels below 5000 kW, the Cogen rate class costs are significantly more than the GS 50 to 4,999 kW class.

## **Summary**

Based upon London Hydro's study of its cost allocation methodology and rate design proposals as they relate to the cogeneration class and the GS 50-4999 kW class the following observations can be made.

1. As indicated in the tables on pages 4 and 7 of this report, the total revenue requirements for the GS 50 to 4,999 kW customer class and the combined Cogeneration customer class, as derived from the 2007 Cost Allocation informational filings, would appear to be appropriate.
2. As indicated in the table on page 5 of this report, the average monthly billing demand level of a customer in the Cogeneration customer class is approximately 26 times that of an average customer in the GS 50 to 4,999 kW customer class. This discrepancy results from the significant spread (50 to 4999) of potential customer demand levels that may exist in the GS 50 to 4,999 kW customer class.
3. As indicated in the table on page 10 of this report, after implementing the proposed cost allocation adjustments for 2009 and 2010, the revenue to cost ratio for the Cogeneration customer class in 2010 will be 105.6%. This is well below the ceiling of 180% and closer to parity than any of the other rate classes.
4. As indicated on pages 7 and 8 of this report, the existing rate structures for the Cogeneration rate class result in a variable revenue % of 82.5% compared to 50.9% for the GS 50 to 4,999 kW class. The analysis in the table on page 8 of this report indicates rate structures required for the Cogeneration class to produce fixed / variable revenue percentages that would be more in-line with the GS 50 to 4,999 kW customer class.

5. The analysis on page 11 of this report compares customer distribution costs at varying levels of consumption to illustrate the existing cost differential between classes.

## **Conclusion**

In London Hydro's opinion, this study does not indicate any flaws in the Cost Allocation methodology and resulting total revenue requirements for the Cogeneration or the GS 50 to 4,999 kW customer class.

What this study does indicate is that within the GS 50 to 4,999 kW customer class there can be a significant variation of customer types and demand levels that for future cost allocation studies and based on a specific utilities customer profiles, may need to be stratified in some manner based upon their respective demand levels.

Based upon London Hydro's current profile of customers in that class as presented on page 6 of this report, there is currently no justification for a creation of additional customer classes within the GS 50 to 4,999 kW class given that 98% of the customers have billing demands of less than 1000 kW and 93% are less than 500 kW.

The customer demand levels of London Hydro's 3 Cogeneration customers are significantly different than the average customer profile in the GS 50 to 4,999 kW customer class and for this reason, the rates and rate structures for these two classes are not comparable.

## **Recommendation**

This study illustrates that the Cogeneration customers are not comparable to the customers in the General Service 50 to 4,999 kW customer class, and in fact the average demand levels for the Cogeneration customers exceed the range of 50 to 4,999 kW. London Hydro would recommend to the Board that the "**General Service 50 – 4,999 kW (Co-Generation)**" customer class be renamed as the "**Co-Generation**" class to remove the current inference and confusion that may result from the fact that customers might assume that Cogeneration customers are part of the General Service 50 to 4,999 kW class when in fact they are not.