

Hydro Ottawa Limited  
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September 20, 2010

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

**Subject: Hydro Ottawa Limited ("Hydro Ottawa")  
2011 Electricity Distribution Rate Application, EB-2010-0133**

Dear Ms. Walli,

Further to Hydro Ottawa's June 14th, 2010 filing of its 2011 Electricity Distribution Rate Application, the following documents have been updated and two copies of each are attached:

Exhibit A1-10-1, List of Witnesses

Exhibit A1-10-2, Curricula Vitae

Response to Interrogatory #15 from the Consumers Council of Canada ("CCC")

The revised response to CCC #15 and attachment is a result of the number of interrogatory questions filed with respect to Hydro Ottawa's lead/lag study, which was submitted as part of Exhibit B3-2-1 of the Application. Hydro Ottawa felt it would be prudent to have a third party review the study in order to provide additional reassurance to the Ontario Energy Board and intervenors.

Should you have any further questions, please contact Jane Scott at (613) 738-5499 extension 7499, directly, or email to [janescott@hydroottawa.com](mailto:janescott@hydroottawa.com).

Yours truly,

*Original signed by*

Jane Scott  
A/Director, Regulatory Affairs  
Hydro Ottawa

Attach.

cc. All intervenors in EB-2010-0133  
Neil Mather, Ontario Energy Board  
Fred Cass, Aird & Berlis



**LIST OF WITNESSES**

Hydro Ottawa Limited ("Hydro Ottawa") will provide the following witnesses for the  
Technical Conference:

- William Bennett, Director, Distribution Asset Management
- Michael Grue, Treasurer
- Roger Marsh, Director, Metering and Electricity Revenue
- Jane Scott, Acting Director, Regulatory Affairs
- Geoff Simpson, Director, Finance



**CURRICULUM VITAE OF  
WILLIAM BENNETT, P.Eng, MBA**

***Experience:***

***Hydro Ottawa Limited***

*Director, Distribution Asset Management (August 2005 to present)*

Responsible for distribution system asset management and system planning, annual capital program development and reporting, sustainment and demand capital project design and project management, distribution records administration and mapping including geographical information system & outage management system, stations electrical maintenance and capital program, and system control & operations.

***Previous Positions***

Manager Asset Planning  
Manager Distribution Design  
Manager Construction

***Ottawa Hydro***

Superintendent Stations, System Office and Metering; 1997- 2000  
Distribution Plant Engineer; 1991-1997  
Commercial Plant Engineer; 1987-1991  
Operations Engineer; 1984-1987  
Junior Engineer; 1982-1984

***Professional Accreditations & Education:***

Bachelor of Applied Science (Electrical Engineering), Queen's University, 1982  
Registered Professional Engineer in Ontario, 1984  
Master of Business Administration, University of Ottawa, 1991

***Appearances:***

Hydro Ottawa 2006 EDR, EB-2005-0381



**CURRICULUM VITAE OF  
JANE SCOTT, P.Eng., MBA**

***Experience:***

***Hydro Ottawa Limited***

*Acting Director, Regulatory Affairs (September 20, 2010 to present)*  
*Manager, Rates and Revenue (June 2005 to September 20, 2010)*

Responsible for all aspects of electricity rate design and revenue forecasts by ensuring that all rate applications are filed in accordance with regulatory requirements and by budgeting, monitoring and analyzing electricity revenues and costs.

*Manager – Regulatory Affairs, 2000-2001*

***City of Ottawa***

*Manager – Water Environment Protection Program, 2002-2005*

***Ottawa Hydro***

*Planning Engineer, 1993-2000*  
*Manager – Energy Management Services, 1990-1993*

***Professional Accreditations & Education:***

B.Sc. (Honours) Electrical Engineering, Queen's University, 1979  
Master of Business Administration, University of Toronto, 1986

***Appearances:***

Hydro Ottawa, RP-1999-0044  
Hydro Ottawa 2006 EDR, EB-2005-0381  
Hydro Ottawa 2008 EDR, EB-2007-0713



**CURRICULUM VITAE OF  
MICHAEL GRUE, CMA**

***Experience:***

***Hydro Ottawa Holding Inc.***

*Treasurer (2000 to present)*

In addition to treasury, corporate taxation, and the insurance program for the Hydro Ottawa Group of Companies, further responsibilities, specifically for Hydro Ottawa Limited, has included corporate budgeting and financial forecasting, determination of internal allocations, and the capitalization of overheads.

***Ottawa Hydro***

*Special Projects (1999 to 2000)*

***The Regional Group***

*Controller (1987 to 1998)*

***Statesmen Management & Realty***

*Controller (1985 to 1986)*

***Professional Accreditations & Education:***

Honours Diploma in Business Administration Accounting Major, Southern Alberta  
Institute of Technology, 1981  
Certified Management Accountant, 1983

***Appearances:***

Hydro Ottawa 2006 EDR, EB-2005-0381  
Hydro Ottawa 2008 EDR, EB-2007-0713



**CURRICULUM VITAE OF  
ROGER MARSH**

***Experience:***

***Hydro Ottawa Limited***

*Director, Metering and Electricity Revenue – December 2006 to present*

Responsible for overall meter to cash revenue stream as well as Smart Meter program.

Director, Electricity Revenue - March 2005 to December 2006

Manager, CIS Implementation Project – March 2003 to March 2005

Manager, Street Lighting – March 2002 to March 2003

Manager, Customer Service – November 2000 to March 2002

***Professional Accreditations & Education:***

*Instrumentation and Controls Technologist – CEGEP Levis-Lauzon, 1979*

*OACEET Certified Engineering Technologist CET, 1985*

*Business Diploma, Sprott School of Business, 2002*

***Appearances:***

*Hydro Ottawa 2006 EDR, EB-2005-0381*



**CURRICULUM VITAE OF  
GEOFF SIMPSON, B.COMM, C.G.A.**

***Experience:***

***Hydro Ottawa Holding Inc.***

*Director, Finance (2008 to present)*

Responsible for financial management and reporting across the Hydro Ottawa Group of Companies.

***Ottawa Police Service***

*Director of Finance and Material Management (2006 to 2008)*

Responsible for providing advice to Executive Command and the Police Services Board on all financial matters arising from the Services \$204 million budget, Payroll and Attendance, Fleet Services, Facilities, Evidence Control and Quartermaster Services.

***City of Ottawa***

*Manager of Financial Support Unit (2001-2006)*

Responsible for financial processes and budgeting for the Public Works and Services Department and Development Services Department.

*Manager of Accounting and Budgeting (1997-2000)*

***Professional Accreditations & Education:***

Certified General Accountants Association of Ontario (1997)

Bachelor of Commerce Honours, Carleton University (1991)



1 **Interrogatory**

2  
3 Rate Base

4  
5 15. B3/T2/S1

6 Did Hydro Ottawa retain an independent consultant to review its lead-lag results? If not,  
7 why not?

8  
9 **Response**

10  
11 Hydro Ottawa did not retain an independent consultant to review its lead-lag results. In  
12 completing the study, Hydro Ottawa was able to review the results for three recent lead-  
13 lag studies filed with the Board: Toronto Hydro-Electric System Limited (EB-2007-0680),  
14 Hydro One Networks (EB-2005-0378, EB-2009-0096) and Enersource Hydro  
15 Mississauga (EB-2007-0706). Each of these studies took a similar approach and Hydro  
16 Ottawa followed a similar structure. Hydro Ottawa has provided a comparison of  
17 lead/lag results in Table 1 below.

18  
19 Hydro Ottawa notes that it is not uncommon for studies to be completed for cost of  
20 service rate applications, and they are often not reviewed by outside consultants. A  
21 decision to use an outside consultant is based on cost considerations, internal expertise  
22 and volume of workload. For example, for Hydro Ottawa's 2008 Electricity Distribution  
23 Rate application (EB-2007-0713), Hydro Ottawa completed its own cost allocation study;  
24 however, for this application, for reasons of workload, an outside consultant was used.

25  
26 Subsequent to the September 9<sup>th</sup>, 2010 filing of the interrogatory responses, Hydro  
27 Ottawa did obtain a third party review of the lead-lag study. Attachment 1 is a letter from  
28 Navigant Consulting.





1

**Table 1 Comparison of Lead / Lag Results**

Expense Item Description	Hydro Ottawa (2008 2009)			Toronto Hydro (Note 1)			Enersource (2007) (Note 2)			Hydro One (2009) (Note 3)		
	Revenue Lag (Days)	Expense Lead (Days)	Working Capital Requirement	Revenue Lag (Days)	Expense Lead (Days)	Working Capital Requirement	Revenue Lag (Days)	Expense Lead (Days)	Working Capital Requirement	Revenue Lag (Days)	Expense Lead (Days)	Working Capital Requirement
			\$ millions			\$ millions			\$ millions			\$ millions
Cost of Power	75.1	33.7	64.2	71.5	32.6	204.7	confidential	32.7	confidential	70.0	32.7	203.9
OM&A Expenses	75.1	10.6	9.5	71.5	19.9	30.2	confidential	9.7	confidential	70.0	22.9	78.2
Interest on Long Term Debts	75.1	45.6	1.2	71.5	43.2	5.6	confidential	32.0	confidential	70.0	52.9	7.7
PILs	75.1	14.6	2.3	71.5	38.0	2.4	confidential	15.1	confidential	70.0	16.5	5.8
Debt Retirement Charges	75.1	33.0	6.1	71.5	33.2	18.9	confidential	32.6	confidential			
Other									confidential	70.0	31.6	5.5
Sub-Total			83.1			261.8			confidential			301.2
GST			1.6			7.8			confidential			8.2
TOTAL (Including GST)			84.7			269.6			confidential			309.3
Working Capital as %			13.7%			12.5%			13.5%			11.9%
Adjustment for HST			2.5									
New Total with HST			87.2									
New Working Capital %			14.1%									

2

Retail Revenue Lag	Hydro Ottawa (Average 2008 2009)	Toronto Hydro (Note 1)	Enersource (2007) (Note 2)	Hydro One (2009) (Note 3)
Service Lag (Note 4)	30.3	27.1	28.7	21.0
Billing Lag (Note 5)	18.3	16.2	11.9	19.1
Collection Lag	25.3	27.1	28.1	32.1
Payment Processing Lag	1.1	1.4	confidential	
Total	75.0	71.8		72.2

Note 1: EB-2007-0680 Exhibit D1 Tab 15 Schedule 1  
Note 2: EB-2007-0706 Filed September 18, 2009  
Note 3: EB-2009-0096 Exhibit D1-1-4 Attachment 1  
Note 4: Hydro One bills monthly. Hydro Ottawa bills bi-monthly for residential and small commercial customers.  
Note 5: Enersource indicates that billing proceeds within 5 days for fixed price customers. Hydro Ottawa waits for hourly pricing to determine settlement amounts.



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Philadelphia, PA 19103  
215-832-4448 phone  
215-832-4401 fax

September 16, 2010

Ms. Lynne Anderson  
Hydro Ottawa Limited  
3025 Albion Road North  
PO Box 8700  
Ottawa, Ontario, K1G3S4

Sent by e-mail: [lynneanderson@hydroottawa.com](mailto:lynneanderson@hydroottawa.com)

Dear Ms. Scott:

Navigant Consulting Inc. ("NCI") was retained by Hydro Ottawa Limited ("HOL" or "The Company") to perform an independent review of its lead lag study supporting its request for a working capital allowance from the Ontario Energy Board ("OEB"). The purpose of this letter is to present the results our review of HOL's report on working capital requirements dated June 2010.

Based on our review, we conclude that the HOL study is:

- Complete, in terms of revenue and expense items considered.
- Generally consistent, in terms of methods used with other studies that have been presented before the OEB by Hydro One Networks ("HONI") and Toronto Hydro Electric System Limited ("THESL").

Our conclusion therefore, is that the results of HOL's study are reasonable when compared with other such studies that have been accepted by the OEB.

***Summary of the HOL Study dated June 2010***

In its report dated June 2010, the Company has identified a working capital requirement of about \$94.2 million or about 14.1% of Operations, Maintenance, and Administration ("OM&A") expenses including cost of power. The approach taken by the Company was to utilize actual experience from 2008 and 2009 in order to determine an average percent of OM&A expense represented by working capital. The resulting percentage was then applied to the Company's

2011 budgeted expenses (including cost of power) in order to determine the amount of working capital that should be included in its regulated rate base.

The Company has considered the three major expense items driving working capital in its study. These include the cost of power including the Ontario Independent System Operator ("IESO"), Hydro One Networks, and other embedded generators, OM&A expenses, and other items such as interest expense, the Debt Retirement Charge (or "DRC"), Payments in Lieu of Taxes ("or PILs"), and the Harmonized Sales Tax (or "HST") in its analysis.

Within OM&A expenses, the Company has considered the following major components in its analysis:

- Payroll and Benefits including the Canada Pension Plan, Employment Insurance, Payments on account of the Workers Safety Improvement Board (or "WSIB"), the Ontario Municipal Employment Retirement System (or "OMERS"), the Employer Health Tax (or "EHT") and various categories of health and welfare benefits provided by the Company to its employees.
- Payments made to Consulting and Contract Staff
- Payments on account of Property Taxes, and
- Miscellaneous OM&A.

On the revenue side of the equation, the Company has considered its three major sources of revenues: a) from residential and business customers, b) from retailers, and c) from other sources. Considered together, the Company's analysis indicates that the average revenue lag is 75.1 days. The information is summarized in Table 1 below.

Table 1

Source of Revenues	2008				2009				Average Revenue Lag Days
	Revenue Lag (Days)	Amount \$s	Weighting Factor	Weighted Revenue Lag Days	Revenue Lag (Days)	Amount \$s	Weighting Factor	Weighted Revenue Lag Days	
Residential and Business	74.86	682,995,744	98.67%	73.86	75.05	731,960,612	98.42%	73.86	73.86
Retailers	58.66	340,117	0.05%	0.03	55.35	347,527	0.05%	0.03	0.03
Other Sources	102.88	8,861,840	1.28%	1.32	69.36	11,434,995	1.54%	1.07	1.19
Total		692,197,701	100.00%	75.2		743,743,135	100.00%	75.0	75.1

The majority of the Company's revenues in 2008 and 2009 were from residential and business customers (98% or more). The average lag time associated with the realization of these revenues were 74.86 and 75.05 days respectively; or 74.95 days on average. This average lag time of 74.95

days consists of a service lag of 30.27 days, a billing lag time of 18.26 days, a collections lag time of 25.3 days, and finally, a payment processing lag time of about 1.13 days.

The Company has estimated the expense lead time associated with the two major drivers of working capital requirement, i.e., cost of power and OM&A expenses, to be 33.71 and 10.56 days respectively. Other expenses that have been considered by the Company and quantified include interest on long term debt (45.63 days), the debt retirement charge (33.05 days), and PIL's (14.64 days). Finally, the Company estimates that the working capital requirement associated with the HST represents approximately 0.77% of the Company's OM&A expenses including the cost of power. This working capital requirement is driven by timing differences between collections and remittances of the HST.

### *Discussion*

Any assessment of the working capital requirements of a regulated firm such as HOL based on a lead-lag study would, at a minimum, require the following criteria to be addressed:

- **Completeness.** The completeness of a study on working capital requirements depends on the breadth of payment and receipt items considered. The wider the breadth of items considered, the clearer the picture of the working capital requirements of a business such as HOL.
- **Consistency,** in terms of methodology with other such studies. As defined here, consistency would entail selecting between actual data or statutory approaches when quantifying revenue lag and expense lead times. Consistency in the use of the mid-point methodology would also be a factor to consider.

The Company's study has considered a broad spectrum of revenue and expense items including the cost of power. Major items relating to the day to day operations of the Company (OM&A) such as payroll and benefits, consulting and contract staff related expenses, WSIB payments, property taxes, and PIL's have been included in the analysis thereby enhancing its completeness. Additionally, the Company has taken into consideration interest expense payments, debt retirement charge payments, and HST pass-through's when calculating its working capital requirements. The expense categories are wide enough in terms of the breadth of the Company's operations. Also, the categories are either similar or identical to those considered by either Hydro One Networks Inc. ("HONI") or Toronto Hydro Electric System Limited ("THESL") or both in their last working capital applications which have been accepted by the OEB.<sup>1</sup> We conclude therefore that the working capital study performed by HOL is **complete** in terms of items that have been considered including the two key ones, i.e., OM&A expenses and cost of power.

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<sup>1</sup> See Cases EB-2005-0378 and EB-2007-0680. Also see case EB-2005-0501.

The Company has prudently used a combination of actual data and statutory approaches for the determination of revenue lags and/or expense lead times. In terms of calculating revenue lags from residential and small business customers for instance, i.e., the majority of its revenues, the Company has appropriately used a customer-weighting approach in its calculation of service lags which is consistent with prior studies that have been accepted by the OEB.<sup>2</sup> The Company's estimate of the Billing lag is generally consistent with that identified for HONI in their last two distribution rate applications. The Company has conservatively elected to use a simple Days of Sales Outstanding (or accounts receivable turnover) (or "DSO") method for calculating its collections lag time. Had the Company been in possession of a daily receivables and sales report, it might have elected to perform a more rigorous sales-weighted or true DSO analysis which we believe would result in a collections lag time higher than the 25.3 days used by the Company here. In the alternative, had the Company elected to use a mid-point method as a proxy for either a sales weighted or true DSO analysis, the result would have been higher, and more representative of actual collections, compared with the simple DSO analysis it elected to use. And, finally, its payment processing lag time of 1.13 days is generally consistent with that identified for THESL in its last distribution rate application.

The expense lead times associated with cost of power, payroll and benefits, consulting and contract staff, and miscellaneous OM&A expenses have been calculated using actual data. The expense lead time associated with HST on the other hand, has been calculated using a statutory approach, i.e., payments or receipts are due on the last day of the month following the date on an invoice. These are both consistent with the approaches used by HONI and THESL in their last distribution rate applications before the Board. Also, it has been consistent in its use of the mid-point methodology to derive, where applicable, revenue lags and expense lead times. In fact, the methods used in the HOL study are, for practical purposes, identical to and therefore, consistent with those used in the OEB's accepted working capital studies of both HONI and THESL. We conclude therefore that HOL's study is consistent, in terms of methodology, with current practice for electricity distributors in the province of Ontario.<sup>3</sup>

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<sup>2</sup> See Cases EB-2005-0378, EB-2009-0096 and EB-2007-0680.

<sup>3</sup> We note one exception to the conclusion that the HOL study is identical to that performed by both HONI and THESL. Where actual data has been used, e.g., in the instance of cost of power, payroll and benefits, property taxes, PILs, and the Debt Reduction Charge, HOL has elected to define the mid-point of the service period as (The End Date – The Beginning Date)/2. This definition was accepted by the Board in HONI's 2005 distribution rate application EB-2005-0378. However, both THESL in EB-2007-0680 and HONI in EB-2009-0096 revised their definitions of the mid-point of the service period to (The End Date – The Beginning Date + 1 Day)/2. The purpose of adding the extra day in the calculation was to explicitly recognize the first and last day of any service period. Noting this, we analyzed the impact of a change to the method used for calculating the collections lag as noted earlier in our letter (by using a proxy True DSO method) in conjunction with revising the definition of the mid-point of the service period as noted above. The result is that the increased working capital requirement associated with the increase in collections lag time is more than offset by a decrease from adding the extra day to the expense lead time. Thus, there is no material impact on HOL's claimed 14.1% as its working capital requirement.

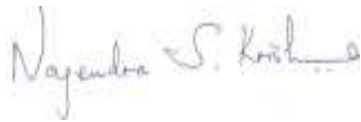
And, finally, in terms of the results of the study, we note that HOL's revenue lag time is similar to that identified by both HONI and THESL in their last working capital applications accepted by the OEB. HOL's revenue lag time of 75.1 days, while seemingly higher on account of known factors such as a greater percentage of bi-monthly customers served by the Company, is generally consistent with that identified in the HONI (68.41 days and 69.99 days) and THESL (71.53 days).

As mentioned earlier, the major expense driver of working capital is the cost of power. HOL's expense lead time associated with the cost of power, i.e., 33.71 days, seems almost identical to that reported by HONI (32.46 days and 32.67 days) and THESL (32.61 days) in their last OEB accepted working capital applications. We note further that the cost of power as a percent of total working capital requirement is similar between HONI (approx. 70%), THESL (approx. 79%), and HOL (approx. 72%).

For the various reasons discussed above, we conclude that HOL's request for working capital, i.e., 14.1% of OM&A expenses including the cost of power, is reasonable.

Lynne, it has been our pleasure to support HOL on this important project. Please let us know if you require our assistance on similar endeavors in the future.

Sincerely,



Nagendra ("Subba") Subbakrishna  
Associate Director

cc. Ralph Zarumba, NCI