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December 18, 2013

**DELIVERED BY RESS, COURIER AND E-MAIL**

Ms. Kristen Walli, Board Secretary  
Ontario Energy Board  
2300 Yonge Street  
Suite 2701  
Toronto, ON M4P 1E4

Dear Ms. Walli:

**Re: APPrO Expert Evidence  
Enbridge EB-2012-0459**

Pursuant to the Decision on Need for a Preliminary Issue and Procedural Order No. 2 dated October 3, 2013, please find enclosed the evidence of Mr. John Todd and Mr. Mike Roger of Elenchus Research Associates Inc. being filed by the Association of Power Producers of Ontario (“APPrO”) in respect of the above noted proceeding.

APPrO previously filed its Expert Plan on September 9, 2013 (the “APPrO Expert Plan”). By letter dated October 3, 2013, APPrO provided an update to the APPrO Expert Plan to inform the Board that it had chosen Mr. John Todd and Mr. Mike Roger of Elenchus Research Associates Inc. as its cost allocation experts for this proceeding.

Yours Truly,

**BORDEN LADNER GERVAIS LLP**

*Original signed by John A.D. Vellone*

John A.D. Vellone

Encl.

Copy: David Butters, APPrO  
John Wolnik, John Todd, Mike Roger, Elenchus  
Parties to EB-2012-0459

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**Proceeding EB-2012-0459**  
**Enbridge Gas Distribution Inc.**  
**Cost Allocation Methodology**

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Evidence Prepared by  
John Todd and Michael Roger  
Elenchus Research Associates Inc.

On Behalf of APPrO

December 18, 2013

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## Table of Contents

Table of Contents .....	1
Executive Summary .....	i
1 Introduction.....	1
2 Principles of Cost Allocation .....	2
2.1 Ontario Approach .....	2
2.2 Cost Allocation Methodology.....	4
3 Summary of Relevant Factors .....	6
3.1 Extra High Pressure (XHP) System .....	6
3.2 Reinforcement Projects .....	6
3.2.1 Ottawa Reinforcement Project .....	6
3.2.2 GTA Reinforcement Project .....	8
4 Enbridge's CAM.....	11
4.1 Allocation of XHP Assets and Expenses .....	12
4.2 Treatment of Costs Related to Excess Capacity .....	14
5 Recommendations.....	16
Appendix A.....	17

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## EXECUTIVE SUMMARY

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2  
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This report presents our views with respect to issues raised by the Association of Power Producers of Ontario (“APPPrO”) related to the Cost Allocation Methodology (“CAM”) used by Enbridge Gas Distribution Inc. (“Enbridge”) to apportion its revenue requirement among its customer classes.

In our opinion, it would be appropriate to refine Enbridge’s CAM in order to better align the costs recovered from the Rate 125 class with the costs they cause as determined using standard cost causality principles as generally applied in cost allocation studies.

There are two issues of concern:

1. It should be recognized that Enbridge’s Extra High Pressure (XHP) facilities include both higher capacity facilities of the type that can be used to serve all customers, including Rate 125 customers, and lower capacity facilities that do not have sufficient capacity to serve Rate 125 customers. Just as distribution assets are allocated only to those customers that can be served using those assets, so too should the lower capacity XHP assets and expenses be allocated only to customer classes that can be served with those facilities. To address this inequity, Enbridge’s XHP facilities as traditionally defined should be separated into two categories that reflect the evolution of the Enbridge system. A refined definition of XHP assets would more accurately reflect the requirements of Enbridge’s current customer classes, including Rate 125, and the costs they cause.
2. The CAM should also be modified to reflect the fact that Enbridge’s economic feasibility test, which is used to determine the amount of capital contribution required, is based on a capital expenditure amount that not only ensures that the system is reinforced as required to meet the demand of a new Rate 125 customer, but also adds sufficient capacity to ensure that the total available excess capacity in the system for future growth is not diminished. In essence, Rate 125 customers are precluded from utilizing any of the current or future spare capacity in the Enbridge system. Given that Rate 125 customers must pay

1 sufficient contribution when connecting to the system to maintain the spare  
2 capacity in the system, it amounts to double charging this rate class to also  
3 allocate the costs associated with unutilized capacity (e.g., sizing reinforcement  
4 projects to accommodate future growth) to this customer class. Conceptually, this  
5 inequity could be addressed by modifying the CAM so that the costs associated  
6 with excess capacity would not be allocated to Rate 125. Since the financial  
7 requirement for Rate 125 customers to maintaining the appropriate level of  
8 excess capacity in the Enbridge system is embedded in the economic feasibility  
9 test when they connect to the system, it appears inconsistent also to consider the  
10 costs associated with excess capacity to be included in rates.

11 Hence, our recommendations are that:

- 12 • Enbridge's CAM should distinguish between high and low capacity XHP assets so  
13 that these assets can be allocated in a manner that better reflects cost causality  
14 principles. Enbridge should allocate to Rate 125 customers only costs of XHP assets  
15 that meet the physical specification of facilities that can be used to supply services to  
16 them.
- 17 • In order to avoid Rate 125 customers paying in two ways for the excess capacity  
18 required in the Enbridge system to accommodate future growth efficiently, Enbridge  
19 should be directed either to amend its economic feasibility test as it applies to Rate  
20 125 customers or to modify its cost allocation methodology so that Rate 125  
21 customers are not required to pay for excess capacity in the system in two ways.

## 1 1 INTRODUCTION

2 The Association of Power Producers of Ontario (“APPrO”) has retained John Todd and  
3 Michael Roger (Todd/Roger) of Elenchus Research Associates Inc. in order to assist  
4 the Ontario Energy Board (“OEB”) in the Enbridge Gas Distribution Inc. (“Enbridge”) application on its 2014 to 2018 Revenue Requirement, proceeding EB-2012-0459, by  
5 presenting expert opinion evidence on the topic of the Cost Allocation Methodology (“CAM”) used by Enbridge to apportion its revenue requirement to customer classes. In  
6 this proceeding, Enbridge’s CAM has been described in Exhibits G1 and G2.

9 APPrO’s specific concerns with Enbridge’s current cost allocation methodology relate to  
10 the methodology used to allocate XHP main costs to Rate 125 and to the way in which  
11 costs associated with Enbridge’s excess capacity are recovered from this rate class.  
12 APPrO has noted that the GTA reinforcement project alone is expected to increase  
13 rates to Rate 125 by 23.8%<sup>1</sup>, when little of this capacity is being caused by or is  
14 available to these customers. Most of the capacity that is being added is to facilitate a  
15 shift in gas supplies to accommodate purchases at Dawn and Niagara, to provide  
16 capacity to accommodate the 10 year growth requirements of its bundled customers  
17 and to provide ex-franchise transmission services<sup>2</sup>. Other reinforcement projects will  
18 further increase rates although, by definition, these costs cannot be caused by Rate 125  
19 customers.

20 Based on these concerns, APPrO requested that we “...assess Enbridge’s current cost  
21 allocation methodology and, if possible, develop a more equitable cost allocation  
22 methodology”.<sup>3</sup>

23 This report includes our assessment and recommendations with respect to Enbridge’s  
24 CAM. Our recommendations are based on generally accepted cost causality principles.

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<sup>1</sup> EB-2012-0451 Exhibit A Tab 3 Schedule 9 Page 15

<sup>2</sup> EB-2012-0451 Exhibit A Tab 3 Schedule 1

<sup>3</sup> The written instructions provided to Elenchus in relation to the proceeding are included as Appendix A to the APPrO Expert Plan dated September 9, 2013.

1 The evidence presented in this report is divided into 4 main sections. Section 2  
2 describes cost causality principles and how these principles are used in the utility  
3 industry, section 3 presents a summary of relevant factors, section 4 describes our  
4 proposed refinements to Enbridge's CAM and section 5 lists our recommendations.  
5 Appendix A contains the CVs for John Todd and Michael Roger.

6 John Todd and Michael Roger have been experts dealing with cost allocation, rate  
7 design and rate regulation issues for over 30 years. Mr. Todd has testified before  
8 regulatory agencies across Canada on a wide range of matters related to rate setting  
9 principles, policies and procedures including cost allocation and rate design issues. Mr.  
10 Roger worked for over 32 years at Ontario Hydro, Ontario Power Generation and Hydro  
11 One and spent most of his career dealing with Cost Allocation and Rate Design issues  
12 for wholesale and retail electricity customers in Ontario. He has also testified on  
13 numerous occasions at OEB proceedings. John's and Michael's vast experience with  
14 Cost Allocation issues were applied in reviewing Enbridge's Cost Allocation  
15 Methodology evidence and form the basis for their recommendations to the OEB on  
16 Enbridge's CAM.

## 17 **2 PRINCIPLES OF COST ALLOCATION**

### 18 **2.1 ONTARIO APPROACH**

19 The OEB regulates the natural gas and electricity sectors in Ontario.

20 Union Gas Limited, Enbridge Gas Distribution Inc. and Natural Resource Gas Limited  
21 are the regulated natural gas distribution companies operating in Ontario. They are  
22 required to submit their revenue requirements for approval by the OEB to recover their  
23 operating and capital costs through bundled and unbundled natural gas rates in a just  
24 and reasonable manner from Ontario natural gas customers. The OEB also approves all  
25 major natural gas facility projects including the manner in which the cost of the  
26 proposed facilities will be recovered from customers.

1 There are widely accepted principles that provide guidance to regulators in determining  
2 rates that are just and reasonable. These are often referred to as Generally Accepted  
3 Regulatory Principles (“GARP”). The seminal work of James C. Bonbright et al., which  
4 sets out ten “attributes of a sound rate structure”<sup>4</sup>, is a primary reference used by  
5 regulators and regulatory experts in identifying the key ratemaking principles. Although  
6 the broad principles have been restated over the years in many different ways in the  
7 literature on economic regulation<sup>5</sup> the basic concepts remain at the heart of economic  
8 regulation.

9 We note that the OEB has explicitly endorsed a version of the Bonbright Principles, as  
10 stated in the Staff Discussion Paper for Rate Design for Recovery of Electricity  
11 Distribution Costs<sup>6</sup>. The Board identified three rate design principles for the purposes of  
12 that process. These principles, which encompass the relevant “Bonbright attributes of a  
13 sound rate structure” identified in the March 2007 Staff Discussion Paper, are:

- 14 1) full cost recovery;
- 15 2) fairness; and
- 16 3) efficiency.

17 The record clearly shows that it is appropriate to use these Generally Accepted  
18 Regulatory Principles as the touchstone for determining just and reasonable rates for  
19 Enbridge’s customers.

20 Cost allocation is an important step in the overall rate making process and it is guided  
21 by the aforementioned Bonbright Principles. In the context of cost allocation, the most  
22 essential element of these principles is that costs should be allocated to customer  
23 classes in a manner that reflects cost causality. The importance of this approach within

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<sup>4</sup> Bonbright, James C., Albert L. Danielson and David R. Kamerschen, (1988) Principles of Public Utility Rates (Second Edition), Public Utilities Reports, Inc., pages 383-384.

<sup>5</sup> A particularly thorough and relatively recent restatement of the Bonbright principles made by a regulator appears in Newfoundland and Labrador Board of Commissioners of Public Utilities, in the Matter of an Application by Newfoundland and Labrador Hydro for a General Rate Review, Decision and Order of the Board, Order No. P.U. 7 (2002-2003), June 7, 2002, pages 28-29.

<sup>6</sup> Ontario Energy Board, Staff Discussion Paper, Rate Design for Recovery of Electricity Distribution Costs, EB-2007-0031, March 31, 2008 (revised June 6, 2008).

1 the OEB's regulatory regime was clearly stated in the Report of the Board EB-2007-  
2 0667.

3 The establishment of class-specific revenue requirements (or cost responsibility)  
4 through cost causality determinations is a fundamental rate-making principle. Cost  
5 allocation is key to implementing that principle. Cost allocation policies reasonably  
6 allocate the costs of providing service to various classes of consumers and, as such,  
7 provide an important reference for establishing rates that are just and reasonable.<sup>7</sup>

8 In our opinion, the applicability of the concept of allocating and recovering costs in a  
9 manner that reflects cost causality is a core principle that guides the setting of just and  
10 reasonable rates in all applications of economic regulation. Certainly, the cost causality  
11 principle is not the sole determinant of just and reasonable rates; however, significant  
12 deviations from this principle should result from an explicit determination of the  
13 appropriateness of any departure from pure cost causality. By definition, such departure  
14 creates cross-subsidies among customers, which need to be accounted for when  
15 balancing relevant rate making principles.

16 Furthermore, in our opinion, it would be inappropriate to establish a charge without first  
17 determining the causal costs in play. Those costs would serve as a reference point in  
18 determining whether any deviation from strict cost causality is appropriate and  
19 necessary, considering other rate making principles or policy considerations. In our  
20 opinion, it would be inconsistent with GARP to accept rates as just and reasonable  
21 when they embed cross-subsidies that have not been quantified and have not been  
22 explicitly recognized and accepted by the regulator.

## 23 **2.2 COST ALLOCATION METHODOLOGY**

24 In order to determine cost based rates, a cost allocation study is performed by a utility to  
25 fairly allocate shared assets and expenses to the customer groups served by the utility.  
26 Traditionally three steps are followed in a cost allocation study: Functionalization,  
27 Categorization or Classification, and Allocation.

---

<sup>7</sup> Ontario Energy Board, Report of the Board, Application of Cost Allocation for Electricity Distributors, EB-2007-0667, November 28, 2007.

1 Assets and expenses that are identified with a particular customer class and that are not  
2 shared with other customer classes are “Directly” allocated to that particular customer  
3 class.

4 Functionalization of assets and expenses is the process of grouping assets and  
5 expenses of a similar nature, for example, generation, transmission, distribution,  
6 customer service, meter reading, etc. Hence, as a first step in a cost allocation study,  
7 each account in the utility’s system of accounts is functionalized. That is, the function(s)  
8 served by the assets or expenses contained in each account is identified so that the  
9 costs can be attributed appropriately to the identified functions.

10 Categorization or Classification is the process by which the functionalized assets and  
11 expenses are classified as commodity, capacity and/or customer related. Hence, the  
12 costs associated with each function are attributed to these categories based on the  
13 principle that the quantum of costs is reflective of the quantum of volume, system  
14 demand, or number of customers.

15 Allocation, which is the final step, is the process of attributing the commodity demand,  
16 capacity and customer related assets and expenses to the customer classes being  
17 served by the utility. This allocation is accomplished by identifying allocators related to  
18 commodity, capacity or customer counts that are reflective of the relationship between  
19 different measures of these cost drivers and the costs that are deemed to be caused by  
20 each customer class.

21 It is in this third step that customers are grouped based on common characteristics, or  
22 utility asset utilization reflecting cost causality.

### 3 SUMMARY OF RELEVANT FACTORS

#### 3.1 EXTRA HIGH PRESSURE (XHP) SYSTEM

In response to APPrO IR # 6<sup>8</sup>, Enbridge stated that “Pipes of any size which operate at a pressure greater than 1207 kPa (175 psi) are included in the XHP system”. Enbridge further states in its response to APPrO’s IR # 10 b)<sup>9</sup>:

*“The minimum pipe size capable of serving an embedded Rate 125 customer is 6 inches in diameter. A 4 inch diameter pipeline could provide service in limited circumstances only.”*

#### 3.2 REINFORCEMENT PROJECTS

There are two major reinforcement projects included in Enbridge’s Cost Allocation Methodology: Ottawa and GTA projects. The costs related to these two projects and other reinforcement projects are being recovered from all customers including Rate 125 customers.

##### 3.2.1 OTTAWA REINFORCEMENT PROJECT

As described in Exhibit B2, Tab 3, Schedule 2, Attachment 1, page 2, the purpose and need of this project is due to strong customer growth in the area. The project will increase capacity in the distribution system in order to meet forecast loads and provide additional security of supply and operational flexibility.

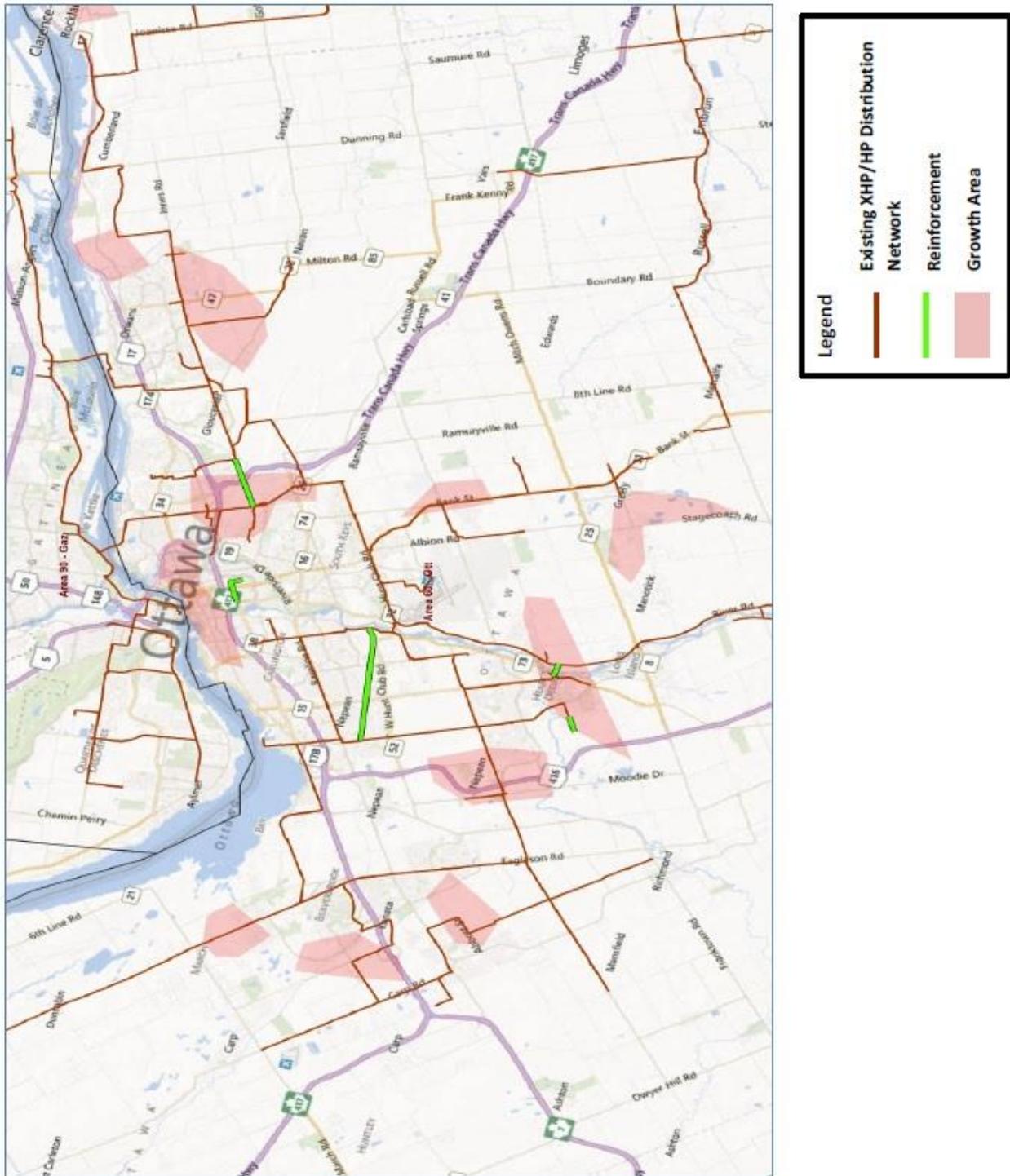
This project is expected to satisfy the peak load increase forecast over the next 10 years of  $117 \times 10^3 \text{m}^3/\text{hr}$ <sup>10</sup>. Any future incremental requirement to serve current or future Rate 125 customers will not be met by utilizing the capacity provided through this reinforcement project since the facility design and the feasibility test for the new Rate 125 customers will maintain the level of spare capacity that would have existing if they had not connected to the system.

<sup>8</sup> Exhibit I.C30.EGDI.APPrO.6

<sup>9</sup> Exhibit I.C30.EGDI.APPrO.11

<sup>10</sup> Proceeding EB-2012-0099, Exhibit A, Tab 3, Schedule 2, page 1, paragraph 2

- 1 The map below from Exhibit B2, Tab 10, Schedule 1, page 49, shows the Ottawa area
- 2 the existing XHP/HP Distribution Network, Reinforcement projects and Growth Areas.



3  
4

1 **3.2.2 GTA REINFORCEMENT PROJECT**

2 In Exhibit B2, Tab 3, Schedule 2, Attachment 2, page 3, it is stated that the GTA project  
3 will meet customer growth requirements, reduce operational risks and enhance safety  
4 and reliability, provide entry point diversity by reducing the dependence of Parkway  
5 Station and finally improve supply chain diversity, reduce upstream supply risks and  
6 reduce gas supply costs over the 2015 to 2025 period.

7 The advance capacity of the GTA project in 2013/2014 is 253.1  $10^3 \text{m}^3/\text{hr}$ ,  
8 (2024/2025 peak load 3186403 minus 2013/2014 peak load 2933273)<sup>11</sup>. This capacity  
9 has been identified as being required to satisfy the ten-year future needs of bundled  
10 customers<sup>12</sup>. This project is expected to have a reserve capacity of 160 TJ/day in 2015  
11 and 130 TJ/d as of 2025<sup>13</sup>.

12 The map below from Exhibit B2, Tab 10, Schedule 1, page 41, shows the GTA area, the  
13 existing XHP/HP Distribution Network, Reinforcement projects and Growth Areas.

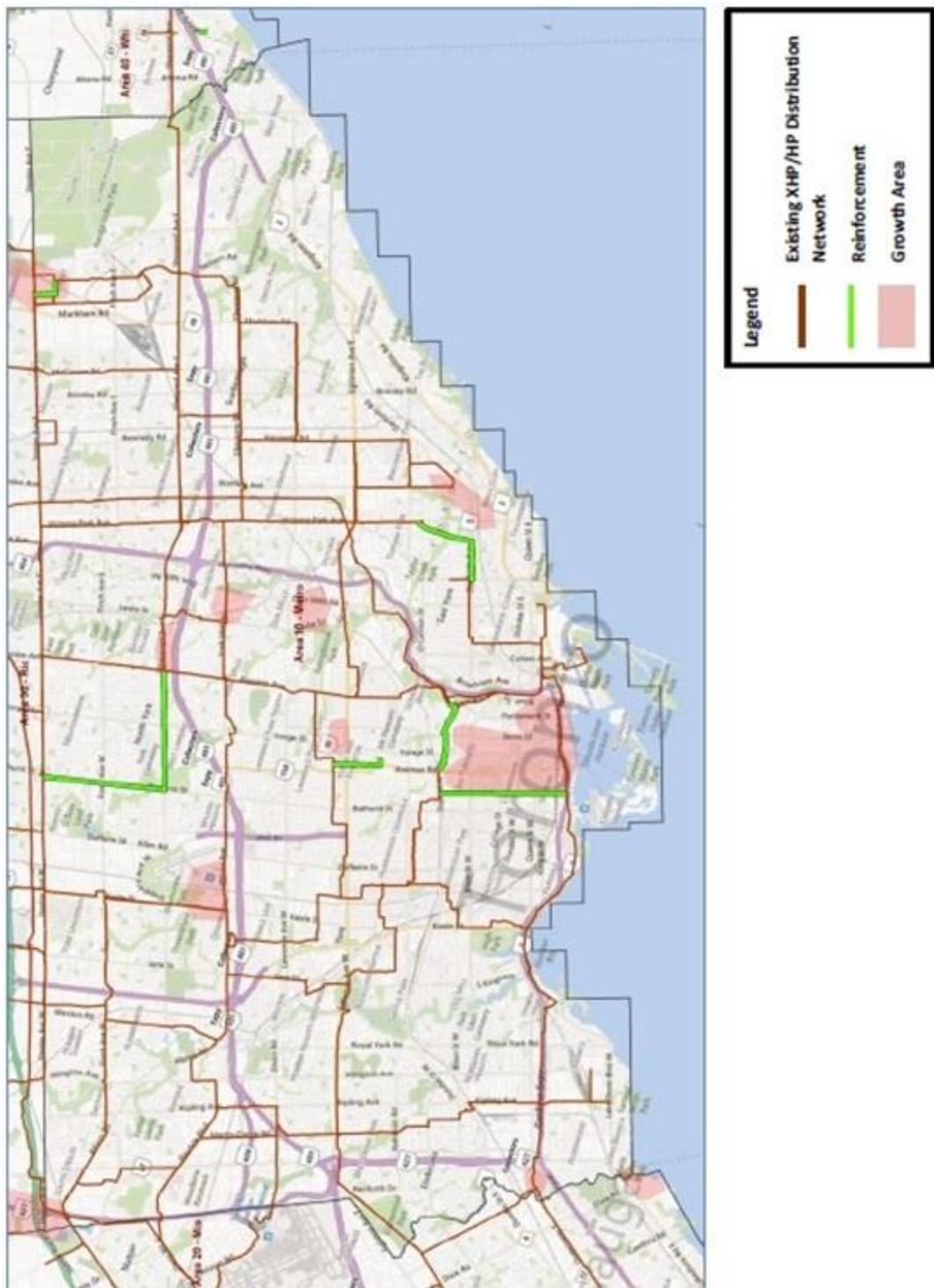
14 The subsequent map, which appeared as ED-2012-0451, Exhibit A, Tab 3, Schedule 1,  
15 Attachment Figure 1, shows the full extent of the GTA Reinforcement Project.

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<sup>11</sup> Proceeding EB-2012-0451, Exhibit I.A4.EGD.ED.5

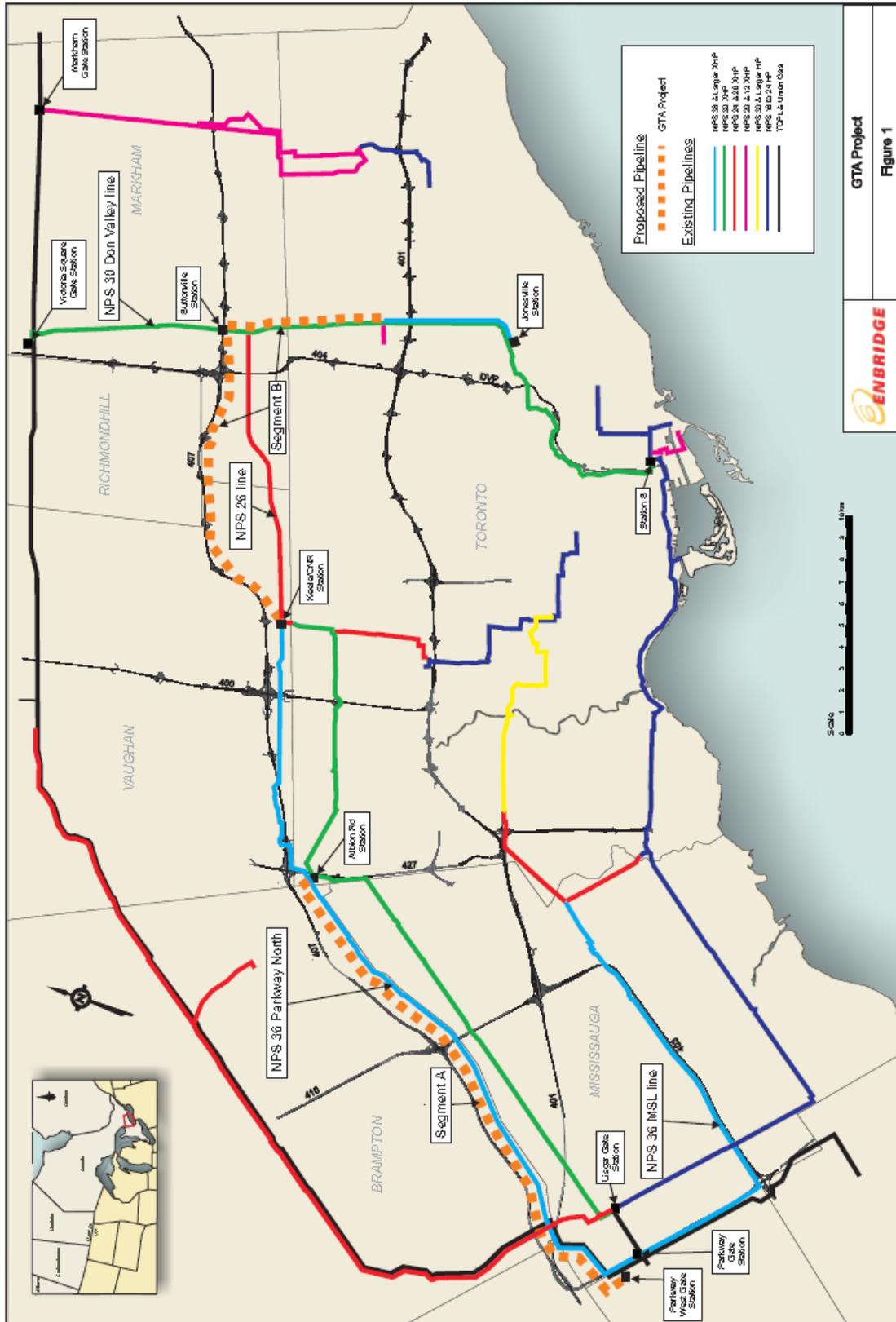
<sup>12</sup> EB-2012-0451 Exhibit I.A1.EGD.APPrO.5

<sup>13</sup> Proceeding EB-2012-0451, Exhibit I.A1. EGD.APPrO.1, page 4, section i)



1

Filed: 2012-12-21  
 EB-2012-0451  
 Exhibit A  
 Tab 3  
 Schedule 1  
 Attachment  
 Figure 1



## 1 **4 ENBRIDGE'S CAM**

2 Enbridge's CAM follows the traditional three steps approach of Functionalization,  
3 Classification and Allocation of costs used by utilities to apportion costs amongst its  
4 customer classes.

5 We reviewed Enbridge's CAM and agree with the basic approach utilized by Enbridge.  
6 We note, however, no cost allocation model can ever be viewed as perfect. Over the  
7 years both Enbridge and other parties have identified appropriate refinements based on  
8 a detailed examination of the consistency of specific aspects of the CAM with the  
9 fundamental principles of cost allocation. Subject to issues of availability of data and  
10 practicality, there is a predisposition to adopt refinements that result in an allocation that  
11 better reflects causal costs.

12 APPrO identified two specific areas in Enbridge's CAM that we were asked to examine.  
13 To our knowledge, these specific issues have not previously been examined in the  
14 context of Enbridge's CAM. Based on our review of these issues, we have concluded  
15 that two refinements to the CAM would result in an allocation that would better reflect  
16 cost causality principles. These refinements relate to:

- 17 1. The allocation of XHP assets and expenses; and
- 18 2. The consistency of the approach to recovering costs related to the excess  
19 capacity in the Enbridge system as embedded in the current CAM and in the  
20 economic feasibility test as it is applied to Rate 125 customers.

21 In our view, the proposed refinements provide appropriate updating of Enbridge's CAM  
22 to reflect the evolution of the Enbridge system and the requirements of the customers  
23 currently served under Rate 125.

1 **4.1 ALLOCATION OF XHP ASSETS AND EXPENSES**

2 AS noted above, XHP assets are extra high pressure assets used by Enbridge to supply  
3 its customers and include “Pipes of any size which operate at a pressure greater than  
4 1207 kPa (175 psi)”<sup>14</sup>. As stated by Enbridge in its response to APPrO’s IR # 10 b) <sup>15</sup>:

5 *“The minimum pipe size capable of serving an embedded Rate 125 customer is 6*  
6 *inches in diameter. A 4 inch diameter pipeline could provide service in limited*  
7 *circumstances only.”*

8 In response to APPrO’s IR # 10 a) <sup>16</sup>, Enbridge agrees that based on cost causality  
9 principles, customer classes should be allocated costs based on the costs that the  
10 customer class imposes on Enbridge’s system.

11 Not all current assets and expenses defined as XHP in Enbridge’s Functionalization  
12 step in its CAM are able to provide service to Rate 125 customers, as confirmed by  
13 Enbridge in response to APPrO’s IR # 10 b) <sup>17</sup>.

14 Rate 125 customers are Enbridge’s largest customers. They must have a Contract  
15 Demand greater than 600,000 m<sup>3</sup>/d<sup>18</sup>.

16 In order to better reflect cost causality, the XHP function should be further broken down  
17 into those XHP assets with size and pressure characteristics that are consistent with the  
18 volumetric requirements of Rate 125 customers and the rest of the XHP assets that do  
19 not provide sufficient capacity to adequately serve Rate 125 customers. In the  
20 Allocation step of the CAM, Enbridge should allocate to rate 125 customers only those  
21 XHP assets and expenses that are capable of supplying services to them.

22 The result of this change, as stated in Enbridge’s response to APPrO’s IR # 10 c) <sup>19</sup>, is  
23 that by allocating only pipelines with diameters of 6 inches or more, the Capacity TP  
24 allocated to rate 125 customers decreases from \$9.96 million to \$9.02 million for 2014.

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14 Exhibit I.C30.EGDI.APPrO.6

15 Exhibit I.C30.EGDI.APPrO.11

16 Ibid.

17 Ibid.

18 Exhibit H2 Tab 2 Schedule 1 Rate 125 Page 1 of 6

19 Exhibit I.C30.EGDI.APPrO 10

1 Base on OEB approvals for the most recent four out of the five Rate 125 customers, the  
 2 size of XHP assets utilized by Enbridge to serve these customers are shown in the  
 3 Table below.

4

Rate 125 Customer	Proceeding #	MW	Peak Day 10 <sup>3</sup> m <sup>3</sup> /d	Pipeline Size
Goreway	EB-2005-0539	839	5,400	24 inch <sup>20</sup>
Portlands	EB-2006-0305	550	2785.9	NPS 20 and NPS 36 <sup>21</sup>
Thorold	EB-2008-0065	236	2037.7	NPS 12 <sup>22</sup>
York Energy	EB-2009-0187	393	3264.0	16 inch <sup>23</sup>

5

6 It is also noteworthy that 3 of the above 4 Rate 125 customers are serviced off  
 7 dedicated pipelines separate and distinct from the balance of the XHP system.

8 We are of the view that Enbridge’s CAM should be modified so as to allocate XHP  
 9 assets based on cost causality principles to Enbridge’s customers by:

- 10 1. Separating XHP assets into two sub accounts: XHP assets able to reasonably  
 11 satisfy the minimum volumetric requirements of Rate 125 customers and the  
 12 remaining XHP assets, and
- 13 2. Allocating XHP assets that can supply Rate 125 customers to all of Enbridge’s  
 14 customer classes and allocation the remaining XHP assets to Enbridge’s  
 15 customer classes excluding Rate 125 customers.

<sup>20</sup> Notice of Application and Hearing, February 14, 2006

<sup>21</sup> Decision and Order, June 1, 2007

<sup>22</sup> Decision and Order, October 28, 2008

<sup>23</sup> Decision and Order, April 5, 2010

1 **4.2 TREATMENT OF COSTS RELATED TO EXCESS CAPACITY**

2 The costs associated with the Ottawa Reinforcement, the GTA Reinforcement, the  
3 Allison Reinforcement, the Harmony Conlin Reinforcement and the York Region  
4 Reinforcement Project are being included in Enbridge's revenue requirement for the  
5 period 2014 to 2018 and are being recovered from Enbridge's customers based on  
6 Enbridge's CAM.

7 Excess capacity means that portion of XHP distribution capacity that is being added by  
8 Enbridge as a result of a reinforcement project. The excess capacity that is being added  
9 is usually the result of economies of scale of pipeline construction and is based on a  
10 long term market forecast for an area.

11 It is our understanding that when a new Rate 125 customer applies for service,  
12 Enbridge provides for 100% of the capacity required by the customer to be added to the  
13 system to ensure that the excess capacity that might exist in the system to  
14 accommodate the growth of small volume customers is not used up by the new Rate  
15 125 customer. The cost of this new capacity is incorporated into the economic feasibility  
16 tests used by Enbridge. If the expansion costs and the ongoing operating and  
17 maintenance costs result in a profitability index (PI) less than 1.0, then the customer is  
18 required to pay a contribution in aid of construction (CIAC) by an amount that would  
19 result in a PI = 1.0. Since Rate 125 customers are only served off the XHP system, the  
20 full costs of the capacity required to serve the new customer are recovered in the  
21 existing rate or are paid as a CIAC.

22 Enbridge has proposed a number of major XHP reinforcement projects in the GTA,  
23 Ottawa and other regions for the benefit of small volume customers. The capacity that is  
24 being added is in excess of the capacity that is required for the test year. Under the  
25 CAM, this excess capacity is not distinguished from the utilized capacity and is allocated  
26 to all rate classes, including Rate 125, using the peak day demand allocator.

27 Since Rate 125 must pay for all the incremental XHP system capacity that is required to  
28 serve their load, they are unable to access any of the excess capacity that results from  
29 the planned reinforcement projects. The effect of the CAM therefore is to recover a  
30 portion of the costs associated with the excess capacity from Rate 125 even though the

1 economic feasibility test ensures that they are paying enough to cover the cost of  
2 maintaining the amount of excess capacity in the system.

3 In essence, Rate 125 customers are not able to access any excess system capacity  
4 that exists at the time they come on line, and 100% of the capacity required to meet  
5 their Contract Demand requirements<sup>24</sup> is included in the economic test when they come  
6 on line.

7 It is our view that requiring Rate 125 customer to pay for the reinforcement projects  
8 identified above, as per the current Enbridge CAM, would in effect recover the same  
9 costs from rate 125 customers that were already recovered by way of rates and the  
10 contribution in aid of construction which maintains the existing capacity of Enbridge's  
11 distribution system when Rate 125 customers are connected.

12 In Proceeding EB-2012-0433/EB-2012-0451/EB-2013-0074, in Transcript Volume 4, of  
13 September 19, 2013, on page 115 line 16 to page 116 line 1, the following oral  
14 testimony evidence was provided:

15 *MS. GIRIDHAR: So, Mr. DeRose, I think we should clarify that when we seek*  
16 *contributions from our large industrial or power generation customers, the notion*  
17 *there is that they're paying for capacity that they're taking away from the system.*  
18 *We have no requirement for them to pay for future growth of other customers being*  
19 *added on the system.*

20 *The reality is that the addition of customers since that time has created additional*  
21 *constraints on infrastructure that's jointly used by all of our customers, including*  
22 *Portlands. So the suggestion that somehow Portlands should pay for the capacity*  
23 *required to meet the needs of other customers doesn't really, you know, ring true for*  
24 *us.*

25 In the same Proceeding, in Transcript Volume 4, of September 19, 2013, on page 114  
26 line 21 to page 115 line 3, the following oral testimony evidence was provided:

27 *MR. FERNANDES: So the answer is that the Portlands project was specific to*  
28 *Portlands as an electrical generator. And the requirement then was to replace the*  
29 *lost capacity on the system in order to ensure that the other ratepayers were not*  
30 *impacted by them coming on the system.*

31 *So Portlands paid a substantial contribution in aid of construction for those facilities.*  
32 *So it would have been inappropriate for to us build more capacity than what*  
33 *Portlands required, because they were substantially paying for that capacity.*

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<sup>24</sup> EB-2012-0451 Exhibit1.A1.EGD.APPrO.2

1 It is our view that in order to avoid Rate 125 customers paying in two ways for the  
2 excess capacity required in the Enbridge system to accommodate future growth  
3 efficiently, Enbridge should be directed either to amend its economic feasibility test as it  
4 applies to Rate 125 customers or to modify its cost allocation methodology so that Rate  
5 125 customers are not required to pay for excess capacity in the system in two ways.

6 Given that some existing Rate 125 customers have paid CIAC that includes the cost of  
7 maintaining the pre-existing level of excess capacity in the system, the only practical  
8 approach to treating all Rate 125 customers equitably may be to modify the cost  
9 allocation model so that Rate 125 customers are not allocated the costs of excess  
10 capacity required to accommodate future load growth in the Enbridge system.

## 11 **5 RECOMMENDATIONS**

12 We recommend that Enbridge's CAM should be refined as follows in order to better  
13 reflect cost causality principles.

14 First, the XHP function should be further broken down into those assets and expenses  
15 that can reasonably serve rate 125 customers and the rest of the XHP assets that  
16 cannot serve Rate 125 customers. In the Allocation step of the CAM, Enbridge should  
17 allocate to rate 125 customers only those XHP assets and expenses that can be used  
18 to reasonably supply services to them as well as other customers who can be served by  
19 those facilities.

20 Second, Enbridge should be directed either to amend its economic feasibility test as it  
21 applies to Rate 125 customers or to modify its cost allocation methodology so that Rate  
22 125 customers are not required to pay for excess capacity in the system in two ways.

1

## **APPENDIX A**

2

CVs John Todd and Michael Roger

1 **JOHN D. TODD**



2 34 King Street East, Suite 600 | Toronto, ON M5C 2X8 | 416 348 9910 | jtodd@elenchus.ca

3  
4 **PRESIDENT**

5 John Todd has specialized in government regulation for over 35 years, addressing issues related to price  
6 regulation and deregulation, market restructuring to facilitate effective competition, and regulatory  
7 methodology. Sectors of primary interest in recent years have included electricity, natural gas and the  
8 telecommunications industry. John has assisted counsel in over 200 regulatory proceedings and  
9 provided expert evidence in over 100 hearings. His clients include regulated companies, producers and  
10 generators, competitors, customers groups, regulators and government.

11  
12  
13 **PROFESSIONAL OVERVIEW**

14 **Founder of Elenchus Research Associates Inc. (ERAI) 2003**

- 15 • ERAI was spun off from ECS (see below) as an independent consulting firm in 2003. There are  
16 presently twenty-five ERAI Consultants and Associates. Web address: [www.elenchus.ca](http://www.elenchus.ca)

17 **Founded the Canadian Energy Regulation Information Service (CERISE) 2002**

- 18 • CERISE is a web-based service providing a decision database, regulatory monitoring and analysis  
19 of current issues on a subscription basis. Staff are Rachel Chua and rotating co-op students. Web  
20 address: [www.cerise.info](http://www.cerise.info)

21 **Founded Econalysis Consulting Services, Inc., (ECS) 1980**

- 22 • ECS was divested as a separate company in 2003.  
23 • There are presently four ECS consultants: Bill Harper, Mark Garner, Shelley Grice and James  
24 Wightman. Web address: [www.econalysis.ca](http://www.econalysis.ca)  
25  
26  
27  
28  
29

1 **PRIOR EMPLOYMENT**

2

**Ontario Economic Council, Research Officer (Government Regulation) 1978 - 1980**  
**Research Assistant 1973 - 1978**

3 **Univ. of Toronto, Faculty of Management Studies**

**Bell Canada 1972 - 1973**

4 **Western Area Engineering**

5 **REGULATORY/LEGAL PROCEEDINGS**

6 Provided expert evidence and/or assistance to the applicant or another participant for:

7 **Before the Ontario Energy Board**

2011 • Cost Allocation evidence for several Ontario electricity distributors (2012 Cost of Service)

2010 • Natural Resource Gas Rate Case  
 (Evidence: Proposed Incentive Regulation Mechanism)

• Cost Allocation evidence for several Ontario electricity distributors (2011 Cost of Service)

2009 • Hydro One Distribution Rate Case  
 (Evidence: Principles for Density Based Rates)

• Cost Allocation evidence for several Ontario electricity distributors (2010 Cost of Service)

2008 • Provided technical and strategic assistance to eight second tranche electricity distribution companies in preparing their rebasing applications for rates for 2009.  
 (Evidence: Cost allocation model updates (for two LDCs))

2007 • Third generation Incentive Regulation  
 (Evidence: Inclusion of a capital expenditure factor)  
 • Provided technical and strategic assistance to six first tranche electricity distribution companies in preparing their rebasing applications for rates for 2008.

2006 • Cost Allocation Review (EB-2005-0252)  
 • Transmission Revenue Requirement Adjustment Mechanism (EB-2005-0501)  
 • Second Generation Incentive Regulation Mechanism (EB-2006-0088-0089)  
 (Evidence: Capital Investment Factor)

2005 • Sub-metering Review (EB-2005-0317)  
 (Evidence: Comments on Staff Discussion Paper on Sub-metering)  
 • Union Gas Rate Hearing  
 (Evidence: Evaluation of Avoided Cost Methodology)

2004 • Enbridge Gas Distribution 2005 Rates (RP-2003-0203)  
 (Evidence: Determining the Fair Rate of Return for a 15-Month Period)  
 (Evidence: Stand-alone System Supply Costs)

2003 • Generic Proceeding on Electricity Distributor Boundary Changes (RP-2003-

- 0044)  
(Evidence: The Benefits of Competition in the Electrical Distribution Sector)
- Union Gas Limited, 2004 Rates (RP-2003-0063)
- (Evidence: Monthly Demand Charge for Brighton Beach Power Station (with Paula Zarnett))
- 2002
- Union Gas Limited, 2003 Rates (RP-2002-0130/EB-2002-0363)
- (Evidence: Review of Union's Delivery Commitment Credit (with Joyce Poon))
- 2001
- Union Gas, Further Unbundling of Rates (RP-2000-0078)
- (Evidence: Regulatory Framework and Cost Responsibility)
- Hydro One Networks, Cost Allocation and Rate Design for RP-2000-0023
- (Evidence: Cost Allocation Model (with Bruce Bacon))
- 1999
- Propose Electric Distribution Rate Handbook
- (Evidence: Comments on Staff Proposals)
- Standard Supply Service Code, (RP-1999-0040)
  - (Evidence: Comments and Alternate Proposal)
  - Enbridge, Year 2000 Rate Application (RP 1999-0001)
  - Enbridge, Performance Based Regulation Application (EBRO 497-01)
  - Enbridge, Ancillary Service Separation & Rental Wind Down (EBO 179-14/15)
- 1998
- Consumers Gas, 1999 Test Year Rates Application (EBRO 497)
- 1997
- Union Gas, Separation of Ancillary Services (EBO 177-17)
  - Town of Aurora, Franchise Renewal (EBA 795)
  - Union Gas, Customer Information System (EBO 177-15)
  - Legislative Change (EBO 202)
  - System Expansion Generic Hearing (EBO 188)
  - Consumers Gas, 1998 Test Year Rates Application (EBRO 495)
- 1997
- Ten Year Market Review Working Group
  - Union Gas/Centra Gas Amalgamation Application
- 1996
- Union Gas/Centra Gas, 1997 Rates Application (EBRO 493/494)
  - Consumers Gas, 1997 Test Year Rates Application (EBRO 492)
  - Ontario Hydro, Review of 1997 Rates (HR-24)
- 1995
- Ontario Hydro, Review of 1996 Rates (HR-23)
  - Consumers Gas, 1996 Test Year Rates Application (EBRO 490)
  - Union Gas, 1996 Test Year Rates Application (EBRO 486)
  - Union Gas/Centra Gas, Shared Services Hearing (EBRO 486/489)
- 1994
- Centra Gas, 1995 Test Year Rates Application (EBRO 489)
  - Ontario Hydro International Hearing (EBRLG - 36)
  - Ontario Hydro Corporate Restructuring and 1995 Rates (HR-22)
  - Consumers' Gas, 1995 Test Year Rate Case (EBRO 487)
- 1993
- Joint Hearing on Direct Purchase Issues (EBRO 474-B/476/483/484/485)
- (Evidence: Return-to-System Policies for Ontario LDCs)
- Centra Gas, 1994 Test Year Rates Application (EBRO 483/484)
- 1993
- Consumers' Gas, 1994 Test Year Rate Case (EBRO 485)
  - Union Gas, 1994 Test Year Rate Case (EBRO 476-03)
- (Evidence: Equity Effects of Union's Depreciation Study)
- 1992
- Consumers' Gas, 1993 Test Year Rate Case (EBRO 479)

- 1991
  - Union Gas, 1993 Test Year Interim Rate Increase (EBRO 476)
  - Consumers' Gas, 1992 Test Year Rate Case (EBRO 473)(Evidence: Direct Purchase Issues)
  - Union Gas, Application for Rates and Cost of Gas (EBRO 462)
  - Centra Gas, 1992 Test Year Rates Application (EBRO 474)(Evidence: Direct Purchase Issues)

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## 2 Before the Public Utilities Board of Manitoba

- 2005
  - Manitoba Public Insurance, 2006 General Rates Application(Evidence: Rate Stabilization Reserve and Related Issues)
- 2003
  - Centra Gas Manitoba, 2003/04 General Rate Application,(Evidence: Comments on the Future Regulatory Methodology)
- 2002
  - Manitoba Hydro, Rate Status Update(Evidence: Manitoba Hydro's Financial Requirements and Proposed Curtailable Rate Program, with William Harper)
  - Manitoba Hydro, Integration Proceeding(Evidence: Assessment of Manitoba Hydro/Centra Manitoba Integration, with William Harper)
- 2001
  - Manitoba Public Insurance, 2002 General Rate Application(Evidence: Rate Stabilization Issues)
  - Centra Gas Manitoba, Primary Gas Rates(Evidence: Centra Gas Manitoba's Rate Setting Methodology)
- 2000
  - Centra Gas Manitoba, Rate Management
  - Manitoba Public Insurance, 2001 General Rate Application(Evidence: MPI's Rate Stabilization Reserve Surplus)
  - Manitoba Hydro, Surplus Energy Program
- 1999
  - Centra Gas Manitoba, Western T-Service and Agency Billing and Collection Service(Evidence: Assessment of the Proposals of the Company)
  - Manitoba Public Insurance, 2000 General Rate Application(Evidence: Rate Stabilization Reserve Risk Analysis)
- 1999
  - Manitoba Hydro Purchase of Centra Manitoba(Evidence: Implications for Rates and the Regulatory Regime)
- 1998
  - Centra Gas Manitoba, Rates Flowing from Board Order 79/98
  - Manitoba Public Insurance, 1999 General Rate Application(Evidence: Rate Stabilization Reserve, Allocation of Costs and IT Expenditures)
  - Centra Gas Manitoba, Feasibility Cost Assumptions Application(Evidence: Comments on Centra's Proposed Changes to the Feasibility Test)
  - Centra Gas Manitoba, 1998 Test Year General Rate Application(Evidence: Comments on Centra's Proposed Customer Information System)
- 1997
  - Centra Gas Manitoba, Ste. Agathe Franchise Application
  - Manitoba Hydro, Review of ISE/DFH/SESS Programs
  - Manitoba Public Insurance, 1998 General Rate Application
  - Centra Gas Manitoba, Continuation of Shared Services Application
- 1996
  - Centra Gas Manitoba, 1997 General Rate Application

- Centra Gas Manitoba, Cost of Service and Rate Design Review
- Generic Hearing on the Role of the LDC in Manitoba  
(Evidence: The Future Role of Centra Manitoba in the Supply of Natural Gas)
- 1995
  - Manitoba Hydro, General Rate Application, 1996 and 1997
  - Centra Gas Manitoba, Price Management and Direct Purchase Issues
  - Application of the Gladstone, Austin Natural Gas Co-op Ltd.
  - Manitoba Hydro, Review of Prospective Cost of Service Study (GRA)  
(Evidence: Comments on the Prospective COSS Methodology)
- 1995
  - Manitoba Hydro, Dual Fuel Heating and Industrial Surplus Energy Rates
  - Centra Gas Manitoba, Rural Expansion/Brandon Facilities Upgrade Hearings
  - Centra Gas Manitoba, 1995 General Rate Application  
(Evidence: Review of Centra's Weather Normalization Methodology)
- 1994
  - Centra Gas Manitoba, Rural Expansion Hearing  
(Evidence: Rural Mains Expansion Feasibility Test)
  - Centra Gas Manitoba, Future Test Year Application  
(Evidence: Comparison of the Future and Historic Test Year methods of RB-ROR regulation)
- 1993
  - Manitoba Hydro, General Rate Application, 1994 and 1995
  - Centra Gas Manitoba, Inc. 1994 General Rate Application
  - Manitoba Telephone System, Interconnect Hearing
  - Manitoba Telephone System, 1993 General Rate Application
- 1992
  - Manitoba Telephone System, 1992 General Rate Application  
(Evidence: The appropriate debt ratio for a crown corporation)
  - Manitoba Hydro, General Rate Application, 1992
  - Centra Gas Manitoba, Inc. General Rate Application
- 1991
  - Manitoba Telephone System, General Rate Application, 1991
  - Centra Gas Manitoba, Inc. Application for Interim Refundable Rate Increase
- 1990
  - Manitoba Hydro, Major Capital Projects  
(Evidence: Hydro's 1000MW Ontario Sale and system planning risks)
  - ICG Utilities (Manitoba) Ltd., Generic Hearing on Rate Setting  
(Evidence: Implications of using a future versus historic test year)

1

## 2 Before the British Columbia Utilities Commission

- 2006
  - British Columbia Transmission Corporation, 2006 Transmission Revenue Requirement
- 2005
  - Insurance Corporation of British Columbia, Financial Allocation Workshop
  - FortisBC, General Rates Application  
(Evidence: Review of FortisBC Performance under PBR, 1996 to 2004) w. S. Motluk
- 2004
  - Insurance Corporation of British Columbia, Financial Allocation Methodology  
(Evidence: Review of ICBC's Financial Allocation Methodology, with ICBC)
- 2002
  - Pacific Northern Gas West and Northeast, General Rate Application
- 2001
  - Utilicorp Networks Canada (formerly West Kootenay Power), Annual Review, 2001
- 2000
  - Pacific Northern Gas, 2000-01 General Rate Application (negotiated)
  - West Kootenay Power, Annual Review, 2000

- 1999
  - Centra Gas BC, 2000-02 Rates Application (negotiated)
  - BC Gas, Market Unbundling Group (Report to the BCUC)
  - West Kootenay Power, 2000-02 Rate Application (negotiated)
  - Pacific Northern Gas, 1999-00 General Rate Application (negotiated)
  - Annual Reviews of WKP and BC Gas
  - West Kootenay Power, Transmission Access Application
- 1998
  - BC Gas, Southern Crossing Pipeline Application (Revised)
  - Pacific Northern Gas, 1998-99 Revenue Requirement/Rate Design  
(Evidence on PNG's Cost of Service Methodology)
- 1997
  - BC Gas, Southern Crossing Pipeline Application  
(Evidence on the impact of ratepayer risks related to the SCP due to developments in the competitive environment in the natural gas sector)
    - Annual Reviews of WKP and BC Gas.
    - West Kootenay Power, Cost of Service and Rate Design (negotiated settlement)
- 1997
  - Pacific Northern Gas Shared Services
  - Retail Access and Unbundling Tariff Hearing (suspended)  
(Evidence on the impact of market restructuring on costs and rates)
- 1996
  - BC Gas - 1996 Rate Design (negotiated settlement)  
(Evidence: Alternative Methods for Allocating Distribution Mains Costs to Customer Classes)
    - BC Gas - 1996-1997, Revenue Requirement & IRP (negotiated settlement)
    - West Kootenay Power - Brilliant Generating Station Transactions
    - West Kootenay Power - General Rate Application/IRP (negotiated settlement)
- 1995
  - Generic System Expansion Hearing
  - BC Gas - General Rate Application (negotiated settlement)
- 1994
  - BC Hydro, 1994 Rate Increase Application
  - West Kootenay Power, 1994/95 Rates and Integrated Resource Plan  
(Evidence: Review of WKP's Integrated Resource Plan)
- 1993
  - BC Hydro, 1993 Rate Increase Application
  - BC Gas, Rate Design Hearing  
(Evidence: Analysis of BC Gas' cost studies and their use in setting rates)
    - BC Gas - General Rate Application (settled and withdrawn prior to hearing)
    - Generic Hearing into the New Provincial Domestic Natural Gas Supply Policy

1

2 **Before the Régie de l'énergie**

- 2001
  - Hydro Québec, Transmission Rates (R-3401-98)  
(Evidence: HQT's Transmission Tariff Rate Design Methodology, with B. Bacon)
    - Inclusion of Operating Costs in the Gasoline Price Floor Set By the Régie  
(Evidence: Review of Principles) (Régie File R-3457-2000)
- 2000
  - SCGM Unbundling of Tariffs (R-3443-2000)  
(Evidence: SCGM's Unbundling Tariff Proposal, with R. Higgin)
    - Gazifère, Rates (R-3446-2000)  
(Evidence: Cash Working Capital and Other Issues, with G. Morrison)
- 1999
  - Operating Costs Borne by Gasoline or Diesel Fuel Retailers (R-3399-98)

(Evidence: Methodology for Determining Operating Costs)

- Small Hydro Within Hydro Quebec's Resource Plan (R-3410-98)

(Evidence: Determining the Purchase Price for Small Hydro)

- 1999
- Gazifère, Year 2000 Rate Case

(Evidence: Assessment of Cost Allocation and Revenue Sharing Proposals)

- 1998
- Hydro Québec, Rate-Setting Methodology Under s. 167 of the Régie de l'énergie Act.

(Evidence: Recommendations on Regulatory Framework)

- Hydro Québec, The Role of Wind Power in the Quebec Energy Portfolio

(Evidence: Issues Related to Establishing a Set-Aside)

1

## 2 Before the Alberta Energy and Utilities Board

- 2001
- Generic, Gas Rate Unbundling (2001-093)

(Evidence: Canadian Experience and Approaches)

- Generic, Gas Cost Recovery Rate Methodology (2001-040)

3

## 4 Before the Newfoundland & Labrador Board of Commissioners of Public Utilities

- 2009
- Newfoundland Power, 2010 General Rate Application

(Evidence: Assessment of five hearing issues)

- 2007
- Newfoundland Power, 2008 General Rate Application

(Evidence: Regulatory instruments and other issues)

- 2006
- Newfoundland Power, 2007 Amortization and Cost Deferrals Application

- 2005
- Newfoundland Power, 2006 Accounting Policy Application

(Evidence: Assessment of Newfoundland Power's Proposals)

5

## 6 Before the New Brunswick Energy and Utilities Board

- 2010
- New Brunswick Power Distribution Corp, 2010 Rate Review

- 2009
- EGNB, Development Period hearing

- New Brunswick Power Distribution Corp, 2009 Rate Review

- 2008
- New Brunswick Power Distribution Corporation, PDVSA Deferral Account

- 2007
- New Brunswick Power Distribution Corporation, PDVSA Deferral Account

(Evidence: Treatment of the Petroleos De Venezuela, S.A. (PDVSA) Settlement in Setting Rates)

7

## 8 Before the Nova Scotia Utility and Review Board

- 2011
- Nova Scotia Power, 2011 Annual Capital Expenditure Plan

- Nova Scotia Power, Load Retention Tariff

(Evidence: Load Retention Tariff Methodology)

- Heritage Gas, 2012 General Tariff Application

- Efficiency Nova Scotia, Compliance Filing

(Cost Allocation Methodology Report)

- 2008
- Town of Antigonish Electric Utility rate process
- (Evidence: Comments on the Town of Antigonish Electric Utility Revised Cost of Service Study)

**1 Before the National Energy Board**

- 1999
- BC Gas, Southern Crossing Project

2

**3 Before the Canadian Radio television and Telecommunications Commission**

- 2010
- Obligation to Serve and Other Matters (NC 2010-43)
- (Evidence: Analysis of Issues Related to Local Service Subsidy)

- 2006
- Review of Price Cap Framework (PN 06-5)

- 2001
- Implementation of Price Cap Regulation for Québec-Téléphone & Télébec (PN 01-36)

(Evidence: Designing a Consistent Price Cap Regime)

- Price Cap Review (PN 01-37) (Evidence: The Second Generation Price Cap Regime)

- Recovery of 2000 and 2001 Income Tax Expense (PN 00-108)

(Evidence: Appropriate Recovery of MTS Income Tax Expense)

- 2000
- Scope of Price Cap Review (PN 00-99)
  - Sunset Rule for Near-Essential Facilities (PN 00-96)
  - Access to Municipal Property in the City of Vancouver (PN 99-25)
  - Review of Contribution Collection Mechanism (PN 99-6)

(Evidence: Review of Contribution Collection Mechanism)

- Review of Direct Connection Charges

- 1999
- Review of Frozen Contribution Rate Policy (PN 99-5)

(Evidence: Comments on the Frozen Contribution Rates Policy)

- High Cost of Serving Areas (PN 97-42)

- 1998
- Local Number Portability Start-up Costs (PN 98-10)

- Competition in the Provision of International Telecommunications Services (PN 97-34)

- 1997
- Implementation of Price Caps (PN 97-11)

- Review of Joint Marketing Restrictions (PN 97-14/97-21)

- Forbearance from Regulation of Toll Services Provided by Dominant Carriers (96-26)

- -Regulation of Telecom Services Offered by Broadcast Carriers (PN 96-36)

- 1996
- Scope of Contribution (PN 96-19)

- Bell Canada, Business Rate Restructuring (PN 96-13)

- Price Cap Regulation and Related Issues (PN 96-8)

(Evidence: Evidence addressing the design of the price cap system)

- 1996
- Local Interconnection and Network Component Unbundling (PN 95-36)

(Evidence: Mechanisms for Collecting Contribution)

- AGT, General Rate Application

- Local Services Pricing Options (PN 95-49/95-56)

- (Evidence: Mechanisms for Pursuing the Goal of Universally Available Basic
  - Telephone Service in Low-Penetration Exchanges)
- 1995
  - Review of Phase II (PN 95-19)
  - Regulatory Framework for Ontario Independent Telephone Cos. (PN 95-15)
  - Split Rate Base Hearing (PN 94-52, 94-56 and 94-58)
- (Evidence: Applicability of the Decision 94-19 Regulatory Framework to MTS)
- 1995
  - Review of the Regulatory Framework of Teleglobe Canada Inc. (PN 95-11)
  - Review of the Quality of Service Indicators (PN 94-50)
  - Bell SYGMA Hearing (PN 94-53)
- 1994
  - Regulatory Framework
- (Evidence: A Proposed Regulatory/Structural Alternative)
  - Maritime Tel, General Rate Increase
  - Island Tel, General Rate Increase
  - BC Tel, General Rate Increase
  - AGT, General Rate Increase
  - Northwestel, General Rate Increase (paper hearing)
  - Bell Canada, General Rate Increase
  - Teleglobe, Annual Construction Program Review (paper hearing)
  - New Brunswick Tel, Annual Construction Program Review (paper hearing)
- 1992
  - Bell Canada - 1992 Annual Construction Program Review
  - AGT - 1992 Annual Construction Program Review
- 1991
  - Bell Canada - 1991 Construction Program Review
- 1990
  - Maritime Telegraph & Telephone, Review of Revenue Requirement 1990-91
- (Evidence on the impact of modernization)
  - Island Telephone Company, Review of Revenue Requirement 1990-91
- (Evidence on the impact of modernization)
  - Review of Cable Television Regulations
- (Evidence on alternative forms of regulation)

**1 Before the Ontario Telephone Services Commission**

- 1992
  - Review of Rate-of-Return Regulation for Public Utility Telephone Companies.
- (Evidence: The need for OTSC regulation of municipal public utility telcos)

2

**3 Before the Ontario Securities Commission**

- 1985
  - Securities Industry Review
- (Evidence: Industry structure and the form of regulation)
- 1983
  - Role of Financial Institutions in the Securities Industry
- (Evidence: Discount Brokerage and the Role of Financial Institutions)
- 1982
  - Institutional Ownership of, and Diversification by, Securities Dealers
- (Evidence: The impact of foreign and institutional entry)
- 1981
  - The Unfixing of Brokerage Commission Rates
- (Evidence: The impact of price competition on the securities industry)

4

1 **Before the Ontario Municipal Board**

- 1995 • Appeal of Boundary Expansion by Lincoln Hydro Electric Commission  
(Affidavit prepared on the tests for boundary expansions)
- 1992 • Evidence dealing with the *Rental Housing Protection Act, 1989*

2

3 **Before the Supreme Court of Ontario**

- 1990 • Challenge of the Residential Rent Regulation Act (1986) under the *Canadian Charter of Rights and Freedoms*  
(Evidence: The impact of rent regulation on Ontario's rental housing market)

4

5 **Before the Saskatchewan Court of Queen's Bench**

- 1993 • Evidence regarding market dynamics and competition policy.

6

7 **Non-Hearing Processes (Task Forces, Lawsuits and Arbitrations)**

- 2011 • Developing a regulatory training course for Ontario electricity distributors
- 2010 • Expert Advisor to the Ontario Energy Board for the Cost Allocation Review
- 2009 • Expert Advisor to New Brunswick Department of Energy on regulatory matters related to the proposed purchase of NB Power assets by Hydro Quebec
- Benchmarking for Regulatory Purposes (CAMPUT)
- 2008 • Expert Advisor to Ontario Energy Board for the Rate Design Review
- 2007 • Workshop on Electricity Market Design for the Electricity Regulatory Authority of Vietnam
- 2006 • Workshop on Regulatory Methodology for the Government of Vietnam (electricity regulator, Ministry of Energy and state-owned enterprises) with Marie Rounding
- 2004 • Vitamin Price Fixing
- Allocation of debt related to separation of electric utilities
- 2001 • BC Gas, Second Generation Performance Based Regulation Negotiation
- Telecommunications Industry, Price Cap Review Negotiation
- 1999 • PBR Task Force (Electricity), Ontario Energy Board
- Market Unbundling Group (BC Gas), British Columbia Utilities Commission
- Western Supply Transportation Service (Centra Gas Manitoba), Manitoba PUB
- 1998 • Market Design Task Force, Ontario Energy Board
- 1997 • Ten Year Market Review, Ontario Energy Board

8

9 **Commercial Arbitrations**

10 Current: Two arbitrations in Alberta

- 2006 • Disputed Power Purchase Agreement (PPA)
- 2004 • Evidence on the interpretation of a Gas Purchase Agreement (GPA)

1

## 2 Facilitation Activities

- 2010 • Three Strategic Planning Process for the Boards of Directors of an Ontario electricity distributor
- 2008 • Three Strategic Planning Processes for the Boards of Directors of electricity distributors
- 2007 • Stakeholder facilitation for Ontario Power Generation in relation to its Regulated Payment Amounts
- 2004 • Ontario Energy Board, Review of Further Efficiencies in the Electricity Distribution Sector (RP-2004-0020) (with IBM Consulting)
- Visioning Session: Structural Review of an association of Ontario electric LDCs
- Business Plan Visioning Session with the Board of Directors of an Ontario electric LDC
- 2000 • Ontario Energy Board, Distribution Access Rule Task Force

3

## 4 Other Regulatory Issues Researched for Clients

- “Benchmarking for Regulatory Purposes” (with First Quartile Consulting) for the Canadian Association of members of Regulatory Tribunals (CAMPUT)
- “Review of Potential Regulatory Cost Measures” (a Report for the OEB)
- “Survey of Regulatory Cost Measures” (a Report for the Ontario Energy Board)
- OEA Working Dialogue on OEB Regulating Efficiency and Effectiveness (2007)
- Regulatory Cost Measures for the Ontario Energy Industry (2007)
- “Designing an Appropriate Lost Revenue Adjustment Mechanism (LRAM) for Electricity CDM Programs In Ontario”
- Small Hydro PPA Terms and Conditions
- Ontario Electricity Supply Mix
- Mitigation of Regulatory Risk for Utilities
- Regulatory Benchmarking
- Cross-jurisdictional Survey of Regulatory Efficiency
- Renegotiation of Municipal Franchise Agreement

### Regulated Industries:

## 5 Papers and Research Projects

- 6 • *Report on the Effects of Separating Hydro One’s Transmission and Distribution Functions.*
- 7 • *Report on Hydro One Privatization Options.*

- 1 • *The Impact of Complete Deregulation on Market Efficiency of the Gas and Electric Industry in*  
2 *Alberta Post-2005 Assuming Current Market Dominance.*
- 3 • *Analysis of a Possible Equity Infusion for Ontario Hydro: Potential Implications for Financing*  
4 *Costs.*
- 5 • *Volatility in the Ontario Electricity Market, by ECS with Snelson International Energy.*
- 6 • *An Assessment of Price Volatility in the Ontario Electricity Market.*
- 7 • *Analysis of MTS Privatization Plan.*
- 8 • *Comments on the Issues Identified in the December 1995 Working Paper of the Advisory*  
9 *Committee on Competition in Ontario's Electricity System, A submission on behalf of The Power*  
10 *Workers' Union.*
- 11 • *Telecommunications Municipal/Franchise Tax Design Options (with Dr. E. Slack).*
- 12 • *The Implications of Phase III Costing for the Rates and Toll Settlements of Independent*  
13 *Telephone Companies (with Andrew Roman).*
- 14 • *Submission to the Department of Communications (Canada) (August 1990): Towards*  
15 *Competition in Telecommunication and Cable TV Services: A Single Switched Broadband*  
16 *Distribution Facility (Comments of the Public Interest Advocacy Centre, with Robert E. Horwood*  
17 *and Gaylord Watkins).*
- 18 • *Submission to the Department of Communications (Canada) (May 1990): Fibre Optic Networks:*  
19 *Facilitating Competition in Telecommunication and Television Services for the Benefit of All Users*  
20 *(Comments of the Public Interest Advocacy Centre, with Robert E. Horwood and Gaylord*  
21 *Watkins).*
- 22 • *Submission to the CRTC concerning cable television regulation on behalf of the Public Interest*  
23 *Advocacy Centre (with Carmen Baggaley).*
- 24 • *Analysis of financing alternatives for Toronto Hydro's 13.8 kV conversion program for the City of*  
25 *Toronto Parks and Recreation Department.*
- 26 • *Analysis of the MacEachen White Paper on "Inflation and the Taxation of Personal Investment*  
27 *Income" for the Ontario Economic Council.*
- 28 • *Submission to the Parliamentary Committee commenting on the April 1985 Finance Green*  
29 *Paper, "The Regulation of Financial Institutions: Proposals for Discussion" prepared on behalf of*  
30 *the Public Interest Research Centre.*

#### **Financial Markets:**

#### **31 Papers and Research Projects**

- 32 • *Analysis of the potential consumer benefits from insurance retailing by financial institutions in*  
33 *Canada for the Public Interest Research Centre.*
- 34 • *Development of a financial model for projecting the financial implications of alternative*  
35 *corporate structures.*
- 36 • *Developed model for projecting cash flows for a major land development project.*
- 37 • *Analysis of the impact on the capital markets of changes to the investment rules for public*  
38 *sector pension funds for the Task Force on the Investment of Public Sector Pension Funds (with*  
39 *Prof. John Bossons).*

- 1 • Review of the OSC proposals and alternatives for relaxing ownership restrictions in the securities  
2 industry prepared for the Ontario Securities Commission for submission to the Premier's Office  
3 (with Prof. Tom Courchene).
- 4 • Analysis of the Impact of Opening the Ontario Securities Market on the Economy of Toronto for  
5 a major Canadian securities dealer.
- 6 • Response to the December 1984 "Interim Report of the Ontario Task Force on Financial  
7 Institutions" for Consumer and Corporate Affairs (Canada).
- 8 • Report on functional integration in the Canadian financial services sector for the Australian  
9 Merchant Bankers' Association.
- 10 • Analysis of the Canadian and American Experience with Partially Negotiable Brokerage  
11 Commission Rates for the Australian Merchant Bankers Assoc.
- 12 • Served as a North American contact for the Office of Fair Trading (United Kingdom) providing  
13 information on developments in the debate over unfixing of brokerage fees, entry of banks into  
14 securities dealing and related matters.
- 15 • Development of a computerized package for analyzing the effects of alternative tax systems on  
16 business investment. Prepared for the Ontario Government reference to the Ontario Economic  
17 Council to study a separate personal income tax for Ontario.
- 18 • "An Analysis of the Use of Component Internal Rates of Return for Fund Performance  
19 Measurement" for Canadian National Investments.
- 20 • Analysis of Canadian Stock Market Data (development of a computer package for evaluating  
21 investment portfolio efficiency).
- 22 • Redesign and periodic updating of the financial, analysis methodology for Alfred Bunting and Co.
- 23 • Developed an APL computer package for teaching Business Finance concepts.

#### Housing:

#### 24 Papers and Research Projects

- 25 • Potential Impact of Rent De-Control on Selected Markets in Ontario
- 26 • Review of the Ontario Auditors analysis of the cost of social housing.
- 27 • *Future Social Housing Delivery Opportunities in Metro Toronto.*
- 28 • Development of a model for projecting core need households to 2011.
- 29 • Analysis of the City of Toronto's approach to the valuation of certain properties developed  
30 under the *Rental Housing Protection Act, 1989.*
- 31 • *Security of Tenure Issues Pertaining to Co-operative Housing.*
- 32 • *Rent Regulation in Ontario*, a report prepared as expert Evidence for a Charter of Rights  
33 challenge of Ontario's system of rent regulation (with W.T. Stanbury).
- 34 • Feasibility study of enhancements to long term housing forecasting models (demographic  
35 factors) with David Foot.
- 36 • Feasibility study of enhancements to long term housing forecasting models (economic factors).
- 37 • Review of the housing situation in the Greater (Toronto) Metropolitan Region in 1988 and the  
38 next decade for the Ontario Ministry of Housing.

- 1 • Treatment of the Assisted Rental Program under rent regulation for the Ontario Ministry of  
2 Housing.
- 3 • Alternatives for implementing of the chronically depressed rent provision of the Residential Rent  
4 Regulation Act, 1986.
- 5 • Projected rental housing requirements to 1996, by unit rent level for Ontario Ministry of  
6 Housing.
- 7 • Analysis of the effects of the Canadian Home Ownership Stimulation Program on housing starts  
8 for Canada Mortgage and Housing Corporation.
- 9 • Energy Efficiency of New Housing (with Peat, Marwick and Partners and Scanada Consultants  
10 Limited) for Canada Mortgage and Housing Corporation.
- 11 • A Model of Supply and Demand in the Market for Housing for the Ontario Ministry of Housing.
- 12 • Several publications and presentations shown in the Academic Profile (see below).

**Other Areas:**

13 **Papers and Research Projects**

- 14 • Economic analysis of the market impact of the merger of two Canadian trucking companies in  
15 the context of the Competition Act.
- 16 • Assisted a Joint Task Force of the Ontario Ministries of Social Services and Health to develop a  
17 cost project model of alternative long term health care delivery systems.
- 18 • Study of Tax Incentives for Film and Television (joint project with Dr. E. Slack) for the Canadian  
19 Film and Television Association.
- 20 • Economic Analysis of Tax Incentives for the Film Industry (joint project with Dr. E. Slack) for the  
21 Department of Communications.
- 22 • Economic Impact of Cultural Institutions for Ontario Association of Art Galleries with the Ontario  
23 Federation of Symphony Orchestras and the Toronto Theatre Alliance.
- 24 • Economic Impact of Art Galleries' Expenditures on their Local Communities for the Ontario  
25 Association of Art Galleries.
- 26 • Developed a case study of the potash pro-rationing scheme invoked by the Saskatchewan  
27 government for the Faculty of Management Studies, Univ. of Toronto.
- 28 • Analysis of Regional Municipality of Niagara financial information for the Niagara Region Review  
29 Commission.
- 30 • Analysis of Ottawa/Carleton regional government's financial information, and comparison with  
31 other regional governments, using the MARS database (with Dr. E. Slack).
- 32 • A Dynamic Simulation Model of the North York Secondary School System for Planning for  
33 Declining Enrolment for the Ontario Institute for Studies in Education, Department of  
34 Educational Planning (with Dr. S. Padro).
- 35 • Development of an extension to the Limits to Growth World III Model incorporating commodity  
36 prices, technology, disaggregated regions and energy resources into the model.
- 37 • Development of a computer program for solving the Dynamic Transportation Problem (with  
38 Professors Sethi and Bookbinder at the Faculty of Management Studies, University of Toronto).

1 **PRESENTATIONS**

- 2 • “Innovations in Rate Design”, 2010 CAMPUT Training Session
- 3 • “Cost of Service Filing Requirements” (2010) 2<sup>nd</sup> Annual Applications Training for Electricity
- 4 Distributors, Society of Ontario Adjudicators and Regulators in cooperation with the Ontario
- 5 Energy Board
- 6 • “Green Energy Act” (2010) 2<sup>nd</sup> Annual Applications Training for Electricity Distributors, Society of
- 7 Ontario Adjudicators and Regulators in cooperation with Ontario Energy Board
- 8 • “Rate Design”, 2009 CAMPUT Training Session
- 9 • “How To Build Transmission and Distribution to Enable FiT: The Role of Distributors”, EUCI
- 10 Conference on Feed in Tariffs, Toronto, Sept. 2009
- 11 • “Distributor Mergers and Acquisitions: Potential Savings”, 2007 Electricity Distributors Ass
- 12 • “Beyond Borders” Regulating the Transition to Competition in Energy Markets (with Fred
- 13 Hassan), EnerCom Conference March 2006.
- 14 • “Low-Income Energy Plan for Peterborough City & County”, 2006 LIEN-AHAC Conference
- 15 • “The “Deregulated Retail Energy Sector in Ontario”, Toronto Association of Business
- 16 Economists, Oct. 2003.
- 17 • “Other Approaches to Rate Regulation”, CAMPUT Annual Meeting, Sept. 2003.
- 18 • “Price Projection: Will the Rate Freeze be Revenue Neutral?” at Canadian Institute Conf., The
- 19 Impact of Ontario’s New Electricity Market on Large Power Consumers Jan. 2003.
- 20 • “Managing Energy Price Risk: Impact of Market & Regulatory Developments on Price Risk
- 21 Management”, Canadian institute Conference, Toronto, October 21, 2002.
- 22 • “Location Based Marginal Pricing: Will it Happen?” Ontario Energy Contracts, Insight
- 23 Conference, Toronto, October 1, 2002.
- 24 • “The Evolution of the North American Energy Market” Canadian Gas Association Executive
- 25 Conference, Vancouver, June 2002.
- 26 • “Alternate Dispute Resolution: Can Everyone Win?” Canadian Gas Association Breakfast,
- 27 Whistler, British Columbia, May 7, 2002.
- 28 • “Incentive Regulation and Commodity Competition Impacts on Quality of Service & Rates”,
- 29 CAMPUT Regulatory Educational Conference, Whistler, BC, May 7, 2002.
- 30 • “Energy Deregulation Developments and Impacts on the HVACR Industry”, HRAI’s 33rd Annual
- 31 Meeting, August 23-25, 2001 Huntsville, Ontario.
- 32 • “Natural Gas Delivery Regulation in Canada”, HRAC Conference on Natural Gas in Nova Scotia,
- 33 Halifax, Nova Scotia, August 25, 1999.
- 34 • “Licensing as a Regulatory Approach” Thirteenth Annual CAMPUT Regulatory Educational
- 35 Conference, Saint John, New Brunswick, May 4, 1999.
- 36 • “The Impact of Restructuring Electricity Markets on Customers”, West Kootenay Power 1998
- 37 Annual Conference, The Dawn of Customer Choice, Kelowna, B.C., Dec. 2, 1998.
- 38 • “Gaining Access to the Retail Customer”, *Electricity Competition in Ontario, New Rule, New*
- 39 *Opportunities, New Players* (Canadian Institute Conference), Toronto, Oct. 1998.

- 1 • "The Future: Mega-BTU Inc.?" (Plenary session) Twelfth Annual CAMPUT Regulatory  
2 Educational Conference, Banff, Alberta, April 27, 1998.
- 3 • "Protecting Low Income Consumers' Access: Lessons Learned From Other Countries," Twelfth  
4 Annual Energy Affordability Conference, National Consumers Law Center, Washington, D.C.,  
5 February 26-27, 1998.
- 6 • "Competition: What happens downstream of the meter?" (Plenary) Eleventh Annual CAMPUT  
7 Regulatory Educ. Conference, Whistler, B.C., May 6, 1997.
- 8 • "Brokers, Marketers and the Public Interest" Eleventh Annual CAMPUT Regulatory Educational  
9 Conference, Whistler, B.C., May 6, 1997.
- 10 • "Separation of Gas Supply, Merchant Functions & Other Alternatives," Tenth Annual CAMPUT  
11 Regulatory Educ. Conf., Niagara-on-the Lake, May 1, 1996.
- 12 • "The Impact of Deregulation on the Public Interest," Tenth Annual CAMPUT Regulatory  
13 Educational Conference, Niagara-on-the Lake, April 30, 1996.
- 14 • "Marketing to Low and Moderate Income Consumers in the New Competitive Market: Lessons  
15 Learned From Other Industries," Tenth Annual Energy Affordability Conference, National  
16 Consumers Law Center, Washington, D.C, February 22, 1996.
- 17 • "Where Should We be Going?" OEB Ten Year Market Review Workshop, Jan. 31, 1996.
- 18 • "Restructuring the Electrical Power Industry in Ontario" for the Board of Directors of Ontario  
19 Hydro on behalf of the Power Workers' Union, August, 1995.
- 20 • "A New Vision for Ontario's Electric Demand/Supply Future" panel presentation, Opening  
21 Plenary Session of the Canadian Independent Power Conference, Toronto, Dec. 1993.
- 22 • "Trends in Rental Housing Affordability by Income Level in Ontario" presented at the 1992  
23 meetings of the Canadian Economics Assoc., Charlottetown, PEI.
- 24 • "An Evaluation of Rent Regulation as an Instrument for Meeting the Housing Needs of Renters in  
25 Ontario," presented to the Ontario Standing Committee on General Government, August, 1991.
- 26 • with S.W. Hamilton (Sept 1990) "Housing and the Regulatory Environment", a paper presented  
27 at the Housing Young Families Affordability Symposium, (Vancouver: Canadian Housing and  
28 Renewal Association/Canada Mortgage and Housing Corp.)
- 29 • "New Telecommunications Technologies: Who Pays? Who Benefits?" presented at the 1990  
30 (June) meetings of the Canadian Economics Assoc., Victoria, B.C.
- 31 • with W.T. Stanbury, (1989) "Rent Controls as a Prisoner of War Game", Canadian Real Estate  
32 Research Bureau, Faculty of Commerce and Business Administration, University of British  
33 Columbia, #89-ULE-019.
- 34 • "The Implications of Rent Regulation for Housing Market Models" presented at 1989 (June)  
35 meetings of the Canadian Economics Association, Quebec City.
- 36 • "Price Caps - An Alternative to Rate of Return Regulation?" at the Canadian Association of  
37 Members of Public Utility Tribunals/Centre for the Study of Regulated Industries, Annual  
38 Regulatory Studies Training Programme, McGill University, May 14-18, 1989.
- 39 • "Living with Rent Regulation in Ontario" at the 35th North American meetings of the Regional  
40 Sciences Association, Toronto, November 1988.

- 1 • "A Survey of the Research of the Thom Commission," at *Rent Control: The International*
- 2 *Experience*, John Deutsch Institute Roundtable, Queen's University, September, 1987.
- 3 • Invited address on "Forecasting the Regulatory Environment of Financial Institutions" sponsored
- 4 by the University of Michigan - Flint as the 1985 paper for their annual *Lectures on the American*
- 5 *Economy and the Business Community* series.
- 6 • "Collapsing Barriers Between Banking and Other Financial Institutions" at the 1984 Canadian
- 7 MBA Conference, McMaster University.
- 8 • The economic impact of cultural activities for conferences of National Museums of Canada,
- 9 Canadian Conference on Heritage Resources, Canadian Museums Association, Ontario
- 10 Association of Art Galleries, and Ontario Federation of Symphony Orchestras.

## PUBLICATIONS

### 11 Refereed Books and Monographs:

- 12 • with W.T. Stanbury (February 1990) *Rent Regulation: The Ontario Experience*, (Vancouver: The
- 13 Canadian Real Estate Research Bureau).
- 14 • with W.T. Stanbury (January 1990) *The Housing Crisis: The Effects of Local Government*
- 15 *Regulation*, (Vancouver: The Laurier Institute).
- 16 • with T. Courchene and L. Schwartz (October 1986) *Ontario's Proposals for the Canadian*
- 17 *Securities Industry*, Observation No. 29, (Toronto: C.D. Howe Inst.).
- 18 • (1983) *Price Competition in the Canadian Securities Industry: A Test Case of Deregulation*,
- 19 (Toronto: Ontario Economic Council).
- 20 • with G.F. Mathewson (1982) *Information Entry and Regulation in Markets for Life*
- 21 *Insurance - Part II Overview and Policy Implications*, (Toronto: Ontario Economic Council).

### 22 Refereed Articles:

- 23 • with W.T. Stanbury (1990) "Landlords as Economic Prisoners of War", *Canadian Public Policy*, XVI
- 24 no.4.
- 25 • with G.D. Quirin and S.P. Sethi (1977) "Market Feedbacks and the Limits to Growth", *INFOR*, Vol.
- 26 15, No. 1.

### 27 Other Publications:

- 28 • (1992) *Technology, Competition and Cross-subsidization in the Canadian Telecommunications*
- 29 *Industry*, (Ottawa: Public Interest Advocacy Centre).
- 30 • (April 1990) *Paying for What You Need: Technological Advances and Competition in*
- 31 *Telecommunications*, (Ottawa: Public Interest Advocacy Centre).
- 32 • with Andrew Roman and Robert Horwood, (1989) *Insurance Retailing by Financial Institutions in*
- 33 *Canada*, (Ottawa: Public Interest Research Centre).
- 34 • with Douglas G. Hartle (1983) "The TAX-2 Model and Results" in *A Separate Personal Income Tax*
- 35 *for Ontario: An Economic Analysis*, Special Research Report, (Toronto: Ontario Economic
- 36 Council).

- 1       • (1982) "Commentary" in *Inflation and the Taxation of Personal Investment Income: An Analysis*  
2       *and Evaluation of the Canadian 1982 Reform Proposals* (edit. D.W. Conklin), Special Research  
3       Report (Toronto: Ontario Economic Council).  
4

## 5    **TEACHING**

1989                   Economics of Housing, Scarborough College, University of Toronto  
1979 – 1985           Engineering Economy, Faculty of Engineering, University of Toronto  
1982 – 1985           Computerized Business Systems (B.A. Program), and Management  
                          Information Systems (M.B.A.), Canadian School of Management  
1979                   Introductory Economics at St. George Campus, University of Toronto  
1977 – 1979           Economic Principles at Erindale College, University of Toronto  
1980 – 1985           Scuba diving instruction for Basic Diver, Sport Diver, Assistant  
                          Instructor and Instructor courses (National Association of Underwater  
                          Instructors).

6

## 7    **RESEARCH MANAGEMENT**

1983 – 1987           • Research Director: Commission of Inquiry Into Residential Tenancies.  
                          • Directing a staff of four in house researchers on various background  
                          studies on Ontario's housing market and the literature related to rent  
                          regulation. Managed thirty external projects on topics related to the  
                          housing market and rent regulation.  
1978 – 1980           • Research Officer: Ontario Economic Council.  
                          • Research was conducted in the areas of regulation of the securities  
                          industry, mineral resource taxation policy, and Federal Provincial  
                          energy policy.  
                          • Other duties included managing ten external research contracts on  
                          topics in regulation and directing the work of research assistants.

8

## 9    **OTHER ACTIVITIES**

- 10       • Organizing Committee for the Concert for Inclusion in support of ParaSport Ontario  
11       • Chairman of the Board of Directors of the Ontario Energy Marketers Association (formerly the  
12        Direct Purchase Industry Committee) and Executive Director of the Association.  
13       • Invited participant in the Ontario Energy Board's External Advisory Committee.  
14       • Panelist for "Administrative Tribunals and ADR", Osgoode Hall Law School, Professional  
15        Development Program, Continuing Legal Education, April 1997.  
16       • Participation on behalf of OCAP in consultative processes related to direct purchase and  
17        integrated resource planning in the Ontario natural gas industry.  
18       • Former Member of the Board of Directors of East Toronto Community Legal Services.  
19       • Former Chairman of the Board of Directors of the Festival of Canadian Theatre.

- 1 • Articles in the editorial section of the Financial Times of Canada on policies for reforming  
2 Ontario's system of rent regulation (June 1990) and federal proposals regarding bank  
3 directorships (February 1991).
- 4 • Numerous appearances on CBC radio and television commenting on energy industry issues,  
5 competition, regulation and mergers in the Canadian economy.
- 6 • Refereed articles and research studies for *Canadian Public Policy*, *Queen's Quarterly* and  
7 Consumer and Corporate Affairs, Canada.
- 8 • Several organizations have been assisted in developing their research agendas, writing  
9 submissions to government on economic issue, or in other advisory capacities. Clients include  
10 the Public Interest Research Centre (topics include airline deregulation, Via Rail, telephone  
11 solicitation, Bell Canada's rate structure, frequent flyer programs, price cap regulation, and  
12 home equity conversion), Ontario Association of Art Galleries (arts funding and economic  
13 impact), Public Affairs Management, Inc., City of Toronto, Parks and Recreation Department,  
14 and Goldfarb Consultants.

15

## 16 **CLIENTS**

### 17 **Private Sector Companies**

Alfred Bunting & Co.	Auto Haulaway Inc.
BC Gas Utilities Limited	BC Rail
Buttcon Ltd.	Canavest House Ltd.
Canadian National Investments	Entergrus (Chatham-Kent Energy)
Comdisco Canada Inc.	Coral Energy
Devon Canada	Direct Energy
EnCana	ENERconnect
Enbridge Gas Distribution	EnCana Corporation
Enron Trade and Capital Canada	Financial Times of Canada
Fine Line Communications Ltd.	FortisBC
Fuji Electric (Tokyo)	Goldfarb Consultants
Great West Life Assurance Co.	Highmark Properties
Hydro One Networks Inc.	Hydro Québec
Insurance Corp. of British Columbia	McLeod Young Weir
New Brunswick Power (Disco)	Ontario Hydro Services
Ontario Power Generation	Shulman Communications Inc.
Sithe Canada	Star Produce
Terasen Gas	The Morassutti Group
Union Gas Limited	Wirebury Connections Inc.
Over 30 Ontario electricity distributors	

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### 19 **Industry and Other Associations**

- 20 Association for Furthering Ontario's Rental Development
- 21 Australian Merchant Bankers' Association

- 1 Canadian Association of Members of Public Utilities Tribunals (CAMPUT)
- 2 Canadian Business Telecommunications Alliance
- 3 Canadian Film and Television Association
- 4 Canadian Independent Telephone Association
- 5 Canadian Museums Association
- 6 Cornerstone Hydro Electric Concepts
- 7 Electricity Distributors Association
- 8 Manitoba Keewatinowi Okimakanak
- 9 Ontario Association of Art Galleries
- 10 Ontario Energy Association
- 11 Ontario Federation of Symphony Orchestras
- 12 Power Workers' Union (CUPE 1000)
- 13 Toronto Theatre Alliance
- 14

15

16 **Consumers' Associations**

- 17 Alberta Council on Aging
- 18 Alert on Welfare
- 19 British Columbia Old Age Pensioners' Association
- 20 Canadian Pensioners Concerned
- 21 (Nova Scotia Division)
- 22 Consumers Association Of Canada
- 23 (National)
- 24 (Manitoba Branch)
- 25 (Alberta Branch)
- 26 (Northwest Territories Branch)
- 27 Consumers Fight Back Association
- 28 Council of Senior Citizens' Organizations
- 29 Co-operative Housing Association of Ontario
- 30 Federated Anti-Poverty Groups of British Columbia
- 31 Action réseau consommateurs (formerly La Fédération
- 32 Nationale des Associations de Consommateurs du Québec)
- 33 Manitoba Society for Seniors
- 34 The National Anti-Poverty Organization
- 35 Nova Scotia League for Equal Opportunities
- 36 Ontario Coalition Against Poverty
- 37 Option Consommateurs
- 38 PEI Council for the Disabled
- 39 PEI Senior Citizens Federation
- 40 People on Welfare for Equal Rights
- 41 Public Interest Research Centre

1 Rural Dignity of Canada  
2 Rural Dignity, PEI Chapter  
3 Senior Citizen' Association  
4 Social Action Commission

5

6 **Counsel for Consumers' Associations**

7 British Columbia Public Interest Advocacy Centre  
8 Legal Aid Manitoba, Public Interest Law Centre  
9 Newfoundland Consumer Advocate  
10 Public Interest Advocacy Centre (Ottawa)

11

12

13 **Government**

14 **Federal**

15 Canada Mortgage and Housing Corporation  
16 Canadian Conference on Heritage Resources  
17 Consumer and Corporate Affairs (Canada)  
18 Department of Communications (Canada)  
19 Director of Investigation and Research, Combines Investigation Act  
20 St. Lawrence Seaway Authority

21

22 **Provincial**

23 Alberta Department of Energy  
24 Commission of Inquiry into Residential Tenancies  
25 New Brunswick, Department of Energy  
26 Niagara Region Review Commission  
27 Ontario Economic Council  
28 Ontario Energy Board  
29 Ontario Institute for Studies in Education, Department of Educational Planning  
30 Ontario Ministry of Community and Social Services  
31 Ontario Ministry of Health  
32 Ontario Ministry of Housing (Corporate Policy and Planning; Rent Review Policy, Housing Field  
33 Operations)  
34 Ontario Securities Commission  
35 Ontario Task Force on the Investment of Public Sector Pension Funds  
36 Ottawa/Carleton Region Review Commission  
37 University of Toronto

38

1 **Other**

2 City of Calgary Electrical System

3 City of Peterborough

4 City of Toronto, (Telecom; Housing; Parks and Recreation)

5 Halifax Regional Municipality

6 Manitoba NDP Caucus

7 Office of Fair Trading (United Kingdom)

8 St. Francis Xavier University

9 Toronto Harbour Commissioners

10 Four municipally operated public utility telephone system

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12

13

14 **Education**

1975 Masters in Business Administration in Economics and Management Science, University of  
Toronto

1972 Bachelors of Science in Electrical Engineering, University of Toronto

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1 **MICHAEL J. ROGER**



2 34 King Street East, Suite 600 | Toronto, ON M5C 2X8 | 905 731 9322 | mroger@elenchus.ca  
3

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4 **ASSOCIATE, RATES AND REGULATION**

5 Michael has over 35 years of experience in the electricity industry dealing in areas of finance,  
6 cost allocation, rate design and regulatory environment. Michael has been an expert witness at  
7 numerous Ontario Energy Board proceedings and has participated in task forces dealing with  
8 his areas of expertise. Michael is a leader and team player that gets things done and gets along  
9 well with colleagues.

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11  
12 **PROFESSIONAL OVERVIEW**

13 **Elenchus** **2010 - Present**  
14 **Associate Consultant, Rates & Regulation**

- 15
- 16 • Provide guidance on the Regulatory environment in Ontario for distributors, with  
17 particular emphasis in electricity rates in Ontario and the regulatory review and  
18 approval process for cost allocation and rate design. Some of the clients that Michael  
19 provides advice include: Hydro Quebec Energy Marketing Inc., GTAA, Ontario Energy  
Board, City of Hamilton, Hydro One Transmission, Powerstream, Hydro Ottawa,  
Veridian, APPRO and Hydro 2000.

20 **Hydro One Networks Inc.** **2002 - 2010**  
21 **Manager, Pricing, Regulatory Affairs, Corporate and Regulatory Affairs**

- 22
- 23 • In charge of Distribution and Transmission pricing for directly connected customers to  
24 Hydro One's Distribution system, embedded distributors and customers connected to  
25 Hydro One's Transmission system. Determine prices charged to customers that conform  
26 to guidelines and principles established by the Ontario Energy Board, (OEB). Provide  
27 expert testimony at OEB Hearings on behalf of Hydro One in the areas of Cost Allocation  
and Rate Design. Keep up to date on Cost Allocation and Rate Design issues in the  
industry. Ensure deliverables are of high quality, defensible and meet all deadlines.

1 Keep staff focused and motivated and work as a team member of the Regulatory Affairs  
2 function. Provide support to other units as necessary.

3 **Ontario Power Generation Inc. 1999 - 2002**  
4 **Manager, Management Reporting and Decision Support, Corporate Finance**

- 5 • In charge of producing weekly, monthly, quarterly and annual internal financial  
6 reporting products. Input to and coordination of senior management reporting and  
7 performance assessment activities. Expert line of business knowledge in support of  
8 financial and business planning processes. Coordination, execution of review, and  
9 assessment of business plans, business cases and proposals of an operational nature.  
10 Provide support to other units as necessary. Work as a team member of the Corporate  
Finance function.

11 **Ontario Hydro 1998 - 1999**  
12 **Acting Director, Financial Planning and Reporting, Corporate Finance**

- 13 • In charge of the day to day operation of the division supporting the requirements of  
14 Ontario Hydro's Board of Directors, Chairman, President and CEO, and the Chief  
15 Financial Officer, to enable them to perform their due diligence role in running the  
company. Interact with business units to exchange financial information.

16 **Financial Advisor, Financial Planning and Reporting , Corporate 1997**  
17 **Finance**

- 18 • Responsible for co-ordinating Retail, Transmission, and Central Market Operation  
19 divisions' support of Corporate Finance function of Ontario Hydro to ensure financial  
20 information consistency between business units and Corporate Office, review business  
21 units compliance with corporate strategy. Provide advice to Chief Financial Officer and  
22 Vice President of Finance on business unit issues subject to review by Corporate  
23 Officers.  
24 • Participate or lead task team dealing with issues being evaluated in the company.  
25 Supervise professional staff supporting the function. Co-ordinate efforts with advisors  
for GENCO and Corporate Function divisions to ensure consistent treatment throughout  
the company.

26 **Section Head, Pricing Implementation, 1986 - 1997**  
27 **Pricing**

- 28 • In charge of pricing experiments, evaluation of marginal costs based prices, cost-of-  
service studies for municipal utilities, analysis and comparison of prices in the electric  
industry, rate structure reform evaluation, analysis of cost of servicing individual

1 customers and support the cost allocation process used to determine prices to end  
2 users.

- 3 • The section was also responsible for the derivation of wholesale prices charged to  
4 Municipal Electric Utilities and retail prices for Direct Industrial customers, preparation  
5 of Board Memos presented to Ontario Hydro's Board of Directors and support the  
6 department's involvement at the Ontario Energy Board Hearings by providing expert  
7 witness testimony.

**Section Head, (acting), Power Costing, Financial Planning & Reporting, Corporate Finance** **1994 - 1995**

- 8 • Responsible for the allocation of Ontario Hydro's costs among its customer groups and  
9 ensure that costs are tracked properly and are used to bill customers. Maintain the  
10 computer models used for cost allocation and update the models to reflect the  
11 structural changes at Ontario Hydro. Participate at the Ontario Energy Board Hearings  
12 providing support and expert testimony on the proposed cost allocation and rates.  
13 Provide cost allocation expertise to other functions in the company.

**Additional Duties** **1991**

- 14 • Manager (acting) Rate Structures Department.
- 15 • Review of utilities' rates and finances for regulatory approval.
- 16 • Consultant. Sent by Ontario Hydro International to Estonia to provide consulting  
17 services on cost allocation and rate design issues to the country's electric company.

**Analyst, Rates** **1983 - 1986**

- 18 • In charge of evaluating different marketing strategies to provide alternatives to  
19 customers for the efficient use of electricity. Co-ordinate and supervise efforts of a  
20 work group set up to develop a cost of service study methodology recommended for  
21 implementation by Municipal Electric Utilities and Ontario Hydro's Rural Retail System.  
22 Provide support data to Ontario Hydro's annual Rate Submission to the Ontario Energy  
23 Board. Participate in various studies analysing cost allocation areas and financial  
24 aspects of the company.

**Forecasting Analyst, Financial Forecasts** **1980 - 1983**

- 25 • Evaluating cost data related to electricity production by nuclear plants and preparing  
26 short term forecasts of costs used by the company. Maintain and improve computer  
27 models used to analyse the data.

- 1       • Review Ontario Hydro's forecast of customer revenues, report actual monthly, quarterly  
2       and yearly results and explain variances from budget. Support the development of new  
3       computerized models to assist in the short-term forecast of revenues.

**Project Development Analyst, Financial  
Forecasts**

**1979 - 1980**

- 4       • In charge of developing computerized financial models used by forecasting analysts  
5       planning Ontario Hydro's short term revenue and cost forecasts and also in the  
6       preparation of Statement of Operations and Balance Sheet for the Corporation-.

**Assistant Engineer – Reliability Statics, Hydroelectric  
Generations Services**

**1978 - 1979**

- 7       • In charge of analysing statistical data related to hydroelectric generating stations and  
8       producing periodic report on plants' performance.

10

11 **ACADEMIC ACHIEVEMENTS**

1977       Master of Business Administration, University of Toronto. Specialized in  
Management Science, Data Processing and Finance. Teaching  
Assistant in Statistics.

1975       Bachelor of Science in Industrial and Management Engineering,  
Technion, Israel Institute of Technology, Haifa, Israel.

12 **OTHER**

13       Fluent in English, Spanish, and Hebrew. Understands German and French.

14