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Susan Frank

Vice President and Chief Regulatory Officer
Regulatory Affairs



BY COURIER

November 2, 2012

Ms. Kirsten Walli
Secretary
Ontario Energy Board
Suite 2700, 2300 Yonge Street
Toronto, ON.
M4P 1E4

Dear Ms. Walli:

EB-2012-0031 – Hydro One Networks' 2013 and 2014 Transmission Revenue Requirement Application – Hearing Plan

Further to the Board's Procedural Order No. 6, enclosed please find the hearing plan consistent with the settlement agreement filed under separate cover. This hearing plan identifies the references to corresponding evidences and interrogatories, and establishes the sequence of witness panels. The curriculum vitae of the witnesses as outlined in the hearing plan are also enclosed.

Sincerely,

ORIGINAL SIGNED BY SUSAN FRANK

Susan Frank

Attach.

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LIST OF WITNESSES AND HEARING PLAN

PANEL ONE – CRA/IESO Panel			
Export Transmission Service Rates			
Witnesses:			
Darren Finkbeiner, Ontario Independent Electricity System Operator (IESO) Ira Shavel, Charles River Associates (CRA) Steve Dorey, Charles River Associates (CRA) APPrO Navigant witnesses			
Issues			
EXPORT TRANSMISSION SERVICE RATES			
23. What is the appropriate level for Export Transmission Rates in Ontario?			
Pre-filed Evidence			
H1-5-1 – Rates for Export Transmission Service H1-5-2 – IESO Export Transmission Service Study			
Interrogatory Responses			
I-23-11.01 APPrO 1	I-23-6.03 HQ 3	I-23-1.02 Staff 85	I-23-5.04 VECC 44
I-23-11.02 APPrO 2	I-23-6.04 HQ 4	I-23-1.03 Staff 86	I-23-5.05 VECC 45
I-23-11.03 APPrO 3	I-23-6.05 HQ 5	I-23-1.04 Staff 87	I-23-5.06 VECC 46
I-23-11.04 APPrO 4	I-23-6.06 HQ 6	I-23-1.05 Staff 88	I-23-5.07 VECC 47
I-23-11.05 APPrO 5	I-23-6.07 HQ 7	I-23-1.06 Staff 89	I-23-5.08 VECC 48
I-23-11.06 APPrO 6	I-23-6.08 HQ 8	I-23-1.07 Staff 90	I-23-5.09 VECC 49
I-23-11.07 APPrO 7	I-23-6.09 HQ 9	I-23-1.08 Staff 91	I-23-5.10 VECC 50
I-23-11.08 APPrO 8	I-23-6.10 HQ 10	I-23-1.09 Staff 92	I-23-5.11 VECC 51
I-23-11.09 APPrO 9	I-23-6.11 HQ 11	I-23-8.01 PWU 18	I-23-5.12 VECC 52
I-23-11.10 APPrO 10	I-23-6.12 HQ 12	I-23-9.01 SEC 41	I-23-5.13 VECC 53
I-23-11.11 APPrO 11	I-23-6.13 HQ 13	I-23-9.02 SEC 42	I-23-5.14 VECC 54
I-23-11.12 APPrO 12	I-23-6.14 HQ 14	I-23-9.03 SEC 43	
I-23-10.01 CCC 42	I-23-6.15 HQ 15	I-23-5.01 VECC 41	
I-23-6.01 HQ 1	I-23-6.16 HQ 16	I-23-5.02 VECC 42	
I-23-6.02 HQ 2	I-23-1.01 Staff 84	I-23-5.03 VECC 43	
Technical Conference Undertakings			
KT1.1	KT1.2	KT1.3	KT1.4

PANEL ONE – CRA/IESO Panel Export Transmission Service Rates
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Intervenor Evidence
Hamal Evidence on Behalf of APPrO Marc-André Laurin Evidence BEMLP/APPrO Interrogatories of HQEM to APPrO
Intervenor Responses to Interrogatory
Exhibit L–I/Tab 23/Schedule 11/HQ IR #1 Exhibit L–I/Tab 23/Schedule 11/Board Staff IR #1 to 4 Exhibit L–I/Tab 23/Schedule 11/VECC IR #1 to 7

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PANEL TWO – HQ Energy Marketing Inc. (HQEM) Panel			
Export Transmission Service Rates			
Witnesses:			
John Todd, Elenchus Research Associates Inc. for HQEM			
Michael Roger, Elenchus Research Associates Inc. for HQEM			
Issues			
EXPORT TRANSMISSION SERVICE RATES			
23. What is the appropriate level for Export Transmission Rates in Ontario?			
Pre-filed Evidence			
H1-5-1 – Rates for Export Transmission Service			
H1-5-2 – IESO Export Transmission Service Study			
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I-23-11.02 APPrO 2	I-23-6.04 HQ 4	I-23-1.03 Staff 86	I-23-5.05 VECC 45
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I-23-11.04 APPrO 4	I-23-6.06 HQ 6	I-23-1.05 Staff 88	I-23-5.07 VECC 47
I-23-11.05 APPrO 5	I-23-6.07 HQ 7	I-23-1.06 Staff 89	I-23-5.08 VECC 48
I-23-11.06 APPrO 6	I-23-6.08 HQ 8	I-23-1.07 Staff 90	I-23-5.09 VECC 49
I-23-11.07 APPrO 7	I-23-6.09 HQ 9	I-23-1.08 Staff 91	I-23-5.10 VECC 50
I-23-11.08 APPrO 8	I-23-6.10 HQ 10	I-23-1.09 Staff 92	I-23-5.11 VECC 51
I-23-11.09 APPrO 9	I-23-6.11 HQ 11	I-23-8.01 PWU 18	I-23-5.12 VECC 52
I-23-11.10 APPrO 10	I-23-6.12 HQ 12	I-23-9.01 SEC 41	I-23-5.13 VECC 53
I-23-11.11 APPrO 11	I-23-6.13 HQ 13	I-23-9.02 SEC 42	I-23-5.14 VECC 54
I-23-11.12 APPrO 12	I-23-6.14 HQ 14	I-23-9.03 SEC 43	
I-23-10.01 CCC 42	I-23-6.15 HQ 15	I-23-5.01 VECC 41	
I-23-6.01 HQ 1	I-23-6.16 HQ 16	I-23-5.02 VECC 42	
I-23-6.02 HQ 2	I-23-1.01 Staff 84	I-23-5.03 VECC 43	
Technical Conference Undertakings			
KT1.1	KT1.2	KT1.3	KT1.4
Intervenor Evidence			
Elenchus Evidence for HQEM			

PANEL TWO – HQ Energy Marketing Inc. (HQEM) Panel Export Transmission Service Rates
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Witnesses:

John Todd, Elenchus Research Associates Inc. for HQEM
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Michael Roger, Elenchus Research Associates Inc. for HQEM
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Intervenor Responses to Interrogatory
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HQEM Responses to AMPCO Interrogatories #1 to 4

HQEM Responses to Broad Staff Interrogatories #1 to 2

HQEM Responses to VECC Interrogatories #1 to 3
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Hearing Day 1: November 8, 2012				
Witnesses:				
Panel 1 - CRA/IESO Panel and APPrO Panel				
Direct Examination	Cross Examination			Total
	Board staff	Intervenors		
15 mins	40 mins	AMPCO	90 mins	4 Hours and 50 Minutes
		CCC	10 mins	
		CME	30 mins	
		SEC	15 mins	
		HQ	30 mins	
		VECC	60 mins	

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Hearing Day 2: November 13, 2012				
Witnesses:				
Panel 2 - Hydro Quebec Marketing Inc. (HQ) Panel				
Direct Examination	Cross Examination			Total
	Board staff	Intervenors		
15 mins	5 mins	AMPCO	30 mins	3 Hours and 45 Minutes
		APPrO	60 mins	
		CCC	10 mins	
		CME	30 mins	
		SEC	15 mins	
		VECC	60 mins	

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CURRICULUM VITAE

Biography – Darren Finkbeiner Manager, Market Development



Darren Finkbeiner is the Manager of Market Development and is responsible for the Market Evolution department at the Ontario Independent Electricity System Operator (IESO). In his current role Mr. Finkbeiner is responsible for the IESO Market Evolution program and the development of the Market Rules that govern the IESO administered markets.



Currently, one of Mr. Finkbeiner's lead responsibilities is to ensure the reliable and efficient integration of Ontario's significant investments in variable renewable generation. He is also the IESO's representative on the IESO Technical Panel, the body which recommends rule changes for the evolution of the IESO Administered markets.

Mr. Finkbeiner joined Ontario Hydro/ the IESO in 1987. He has held positions as a NERC certified Power System Operator as well as managing roles in market and system analysis, change management, operational readiness and market entry. He has been closely involved with the restructuring and evolution of the Ontario electricity market.

Among his other prior responsibilities, Mr. Finkbeiner has served as Ontario's committee representative in various industry forums dealing with congestion management, intertie seams issues and inter-jurisdictional power purchase agreements.

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steve.dorey@energy.ca/sdorey@crai.com/ s.dorey@rogers.com

Executive Profile

- Proven ability to lead large projects in a complex policy environment.
- In-depth understanding of, and experience in, energy policy development and implementation.
- A leader in energy, economic and public policy in Canada.
- A wide range of senior contacts in the energy, economic and financial communities.

Current Activities

Senior Consultant, Charles River Associates

- Provides consulting services in Canada for the Energy and Environment practice of Charles River Associates, a leading global consulting company, based in Boston.

Director and Chair of Studies Committee, Energy Council of Canada

- Coordinates Canadian input into World Energy Council studies. Current WEC global studies include: *Energy Scenarios to 2050*, *Energy and Urban Innovation*, and *An Assessment of Global Energy and Climate Policies*.

Advisory Board Member, Waterloo Institute for Sustainable Energy

- Provides advice to the Institute Director and faculty re sustainable energy research.

Recent Employment

Strategic Advisor to the CEO, Ontario Power Authority (2009-10 secondment)

- Providing analysis and advice regarding major long-term energy sector trends to the Power Authority's CEO, executives and Board.

Vice President, External Relations and Senior Vice President, Strategic Planning, Hydro One (1999-2009)

- Coordinating Hydro One's strategic relationship with stakeholders, including its sole shareholder, the Province of Ontario;
- Leading the development and implementation of focused and credible corporate strategy for Hydro One.

Executive Director, Electricity Conservation and Supply Task Force (2003-04 secondment)

- Providing analysis and support to twenty Ontario energy industry leaders selected by the Minister of Energy to develop an action plan for Ontario's power sector;
- Principal author of "*Tough Choices, Addressing Ontario's Power Needs*", which served as the blueprint for the subsequent restructuring of the Province's power sector.

Chief Economist, Province of Ontario and Assistant Deputy Minister, Economic Policy, Ontario Ministry of Finance (1993-1999)

- Leading an office of eighty professionals providing advice on the economic implications of government policy options and economic developments;
- Co-author of “*Direction for Change*”, the Ontario Government’s White Paper on the future of the Ontario electricity industry;
- Leading the financial restructuring of the Ontario electricity industry and the reorganization of Ontario Hydro into separate generation and wires companies;
- Regular presentations of Ontario’s economic and fiscal prospects to investors in Canada, the United States, Europe and Asia;
- Board Member, Ontario Financing Authority, which manages the Province’s \$110 billion debt portfolio and \$80 billion swap book. Also served as the Chair of the Authority Board’s Audit Committee (1997-99) and a member of its Borrowing Strategy Committee (1993-97);
- Project Leader, Government of Ontario’s “Streamlining Economic Policy Development” Project.

Previous Experience

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| 1988-93 | Senior executive positions in the Ontario Ministry of Finance, including Assistant Deputy Minister , Taxation and Intergovernmental Finance, and Director , Economic Forecasting |
| 1983-87 | Lecturer in Economics , University of Regina Economics Department. |
| 1979-83 | Senior Economist , Saskatchewan Department of Finance, Economic and Fiscal Policy Division |
| 1975-78 | Coordinator of Manpower and Economic Development , Manitoba Department of Northern Affairs |
| 1971-73 | Teacher , Kenneth Kaunda Secondary School , Chinsali Zambia |

Education

BA (Economics), University of Waterloo
 MA (Economics), University of Manitoba
 Ph D (Economics), University of Manitoba
 (All requirements completed but dissertation)

Professional and Volunteer Activities

- Director and Chair of Studies Committee, Energy Council of Canada
- Transmitter Representation on the Independent Electricity System Operator Stakeholder Advisory Committee (2006-09)
- Member, Laidlaw Foundation Investment Committee
- Vice-Chair, Canadian Energy Efficiency Alliance (2006-08)
- Member, Toronto Board of Trade Electricity Task Force (2003-09)
- Member, Editorial Board, *Canadian Business Economics* (1997-2000)

Ira Shavel
Vice President

PhD Mathematics
State University of New York at Stony Brook

SM Operations Research
Massachusetts Institute of Technology

MS Mathematics
Courant Institute of Mathematical Sciences

BS Mathematics
City College of New York

Dr. Ira H. Shavel is a vice president in the Energy & Environment Practice at CRA. He has 30 years of experience in the energy industry, with a concentration in the economics and operation of the US electric power system, generation and transmission investment, and environmental strategy. Dr. Shavel's clients include generation and transmission companies, natural gas pipeline companies, marketers, developers, industry research groups, and federal agencies.

Dr. Shavel developed several models of North American power systems, including the ICF Integrated Planning Model (IPM). Most recently he led the development of Charles River Associates' National Energy and Environment Model (NEEM) and was instrumental in the integration of NEEM with the Multi-Region National Macroeconomic Model.

Dr. Shavel has testified in FERC, state regulatory proceedings, and at the Ontario Energy Board. He co-directed major assignments that helped the Kansas City Power & Light and the Southern Company develop environmental reports for their shareholders. He is a co-author of a report on the design of California's policies to limit greenhouse gas emissions.

Professional experience

2001–Present	<i>Vice President</i> , Charles River Associates
1996–2001	<i>Vice President</i> , Putnam Hayes and Bartlett, and PHB Hagler Bailly
1995–1996	<i>Senior Vice President</i> , Applied Automated Engineering Corporation
1979–1995	<i>Vice President</i> , ICF-Kaiser Consulting Group

Generation economics

- Conducted an appraisal of a large Midwest coal plant.
- Directed a major electric utility's annual fuel price projection that is used to support all of its operating companies' regulatory activities.
- Directed a board-level corporate positioning strategy for a merchant generation company faced with multiple challenges including impending carbon polices and poor overall market conditions.
- Directed an analysis of the value of a merchant plant development company for a potential purchaser. This analysis focused on the value of the developer's assets and organization as part of the client's broader strategy to develop a large electric power portfolio.

- Worked for a utility's senior management to analyze the potential market for a share of a nuclear asset. This analysis formed the basis for the company's negotiations with prospective purchasers. Schedule Page 5 of 37
- Analyzed the economics of a major pipeline project to serve a Northeast generating station for senior management of an interstate natural gas pipeline company.
- Analyzed the market and regulatory environments for numerous potential purchasers of generation asset.
- Co-directed the development of the infrastructure for a bulk power trading organization, including a tactical computer system and databases to support trading in the Eastern Interconnection. Worked with traders to identify long- and short-term sales and wheeling opportunities.
- Directed a study of least-cost options for the development of the Russian power system. Produced an integrated assessment of the need for investment in the system for use by international financial institutions in evaluating funding requests and by the State Department in negotiating the shutdown of unsafe reactors.
- Taught a course on electric utility economics designed for the management of a major US electric utility.

Litigation/regulatory

- Expert witness regarding the Michigan/Ontario Phase Angle Regulators at the FERC. (*In Midwest Independent Transmission System Operator, Inc.*, FERC Docket No. ER11-1844, July 16, 2012.)
- Expert witness regarding NSTAR Electric Company's petition to construct a transmission line in Massachusetts. (Before the Commonwealth of Massachusetts Energy Facilities Siting Board and Department of Public Utilities on behalf of GENON Canal, LLC, EFSB 10-2/D.P.U. 10-131/D.P.U. 10-132.)
- Expert witness regarding the Independent Electricity System Operator of Ontario's export tariff. (*In the matter of a review of an application filed by Hydro One Networks Inc. for an order or orders approving a transmission revenue requirement and rates and other charges for the transmission of electricity for 2011 and 2012*, EB-2010-0002.)
- Expert witness regarding the benefits to Virginia ratepayers of the Potomac-Appalachian Transmission Highline (PATH) Project. (Before the State Corporation Commission of the Commonwealth of Virginia. (*For approval and certification of electric transmission facilities under Va. Code § 56-46.1 and the Utility Facilities Act, Va. Code § 56-265.1 et seq.*, Case No. PUE-2010-0015.)
- Performed a benefit-cost analysis of the International Transmission Company's Green Power Express and filed testimony at the FERC. (*Green Power Express LP*, FERC Docket No. ER09-681-000).

Exhibit A
Tab 21

Schedule
Page 6 of 37

- Expert witness regarding Sierra Pacific's plan to add a combined cycle unit at its Tracy station. (Before the Public Utilities Commission of Nevada, *Application of Sierra Pacific Power Company for Approval of the Eighth Amendment to the Action Plan of its 2005-2024 Integrated Resource Plan to Approve Construction of the Tracy Combine Cycle Project, its Designation as a Critical Facility and the Proposed Incentive Mechanism for Ratemaking Purposes*. Docket No. 05-8004, November 2005.)
- Expert witness regarding reporting of Pacific Northwest transactions to the FERC. (*In the Matter of: Enron Power Marketing, Inc.*, Docket Nos. EL03-180-29, et al.)
- Expert damages witness for the Tennessee Valley Authority in a class action suit alleging that Tennessee Valley Authority overcharged a class of interruptible customers in the summer of 1998. (*Johns Manville v. Tennessee Valley Authority*, No. 2:99-CV-2294-VEH-HGD.)
- Expert witness regarding the benefits of Public Service of Colorado's proposed DC transmission line between Colorado and Kansas in support of a Certificate of Public Convenience and Necessity. (Before the Public Utilities Commission of the State of Colorado, *In The Matter of the Application of Public Service Company of Colorado for a Certificate of Public Convenience and Necessity for the Construction of a 345 KV Transmission Line*, Docket No. 00A-600E, May 2002.)
- Expert witness regarding an analysis of transmission system usage in the eastern US. (*Midwest Independent Transmission System Operator, Inc., et al.* Docket No. EL02-111; *Ameren Services Company, et al.*, Docket No. EL03-212; *Midwest Independent Transmission System Operator, Inc. et al.*, Docket No. EL04-135-000, before the Federal Energy Regulatory Commission, October 1, 2004 and October 22, 2004.)
- Directed analysis and litigation support for both FERC and civil proceedings for two California generators. The assignments included participation in settlement discussions with FERC staff.
- Directed the damages analysis for an expert witness in *Cedar Bay Generating Company v. Florida Power and Light*. Provided an affidavit in support of a motion for sanctions and contempt and was subsequently deposed in connection with the affidavit.
- Co-directed the FERC "Appendix A" market power analysis in support of AEP's FERC and state filings in connection with its proposed merger with CSW.
- Directed the market revenue and variable costs analysis for Potomac Electric Power Company's stranded cost case.
- Directed the market revenue and variable costs analysis for PECO Energy's restructuring and qualified rate order cases. Prepared testimony and responded to interrogatories and data requests.
- Conducted an analysis for a large eastern utility to screen potential merger partners for FERC Order 592 "Appendix A" failures.

Transmission economics

- Assessed the value of a proposed DC transmission line in New York in terms of customer savings and state employment.
- Led two studies of the implication for customers and generators of different Independent Electricity System Operator of Ontario Export Transmission Service tariffs.

- Helped develop a PJM financial transmission right (FTR) bidding strategy for a participant in the PJM FTR auctions.
- Analyzed MISO congestion patterns and the impact of these patterns on the market margins for the asset owner's generation units. The assignment included an assessment of the transmission upgrades that might improve the owner's financial position.
- Analyzed the consumer benefits of a transmission expansion versus a new generation unit in New England. Benefits included system reliability as well as the cost of power.
- Directed the analysis of the cost and benefits of two potential Midwest transmission projects in support of the acquisition of a transmission system.

Environmental analyses

- Assisted a merchant generation company facing US EPA enforcement make a decision about installing SO₂ and NO_x controls in preparation for negotiations with EPA.
- Co-authored an Electric Power Research Institute report on California's climate policy. ("Economic Analysis of California Climate Initiatives: An Integrated Approach," Electric Power Research Institute, 2007).
- Co-directed major assignments to assist the Kansas City Power & Light and the Southern Company develop environmental reports for their shareholders.
- Advised the Utility Air Regulatory Group on New Source Review issues.
- Directed a peer-reviewed global climate change study for the Tennessee Valley Authority. Evaluated the impact of different forms of CO₂ control policies in terms of costs and rate impacts for the Tennessee Valley Authority and, more broadly, for US electric utilities and their customers. Presented results to White House and Department of Energy staff.
- Co-authored a workbook on greenhouse gas accounting commissioned by the Electric Power Research Institute. Options analyzed included conservation, cogeneration, and reforestation.
- Co-directed a study for the Edison Electric Institute of the cost of climate policies on US electric utilities.

Power system modeling

- Developed several detailed models of the North American (including Canadian) and the Russian power systems. Managed both development of the computer software and data assembly. These models are used to forecast market prices, value assets, and estimate the future development of the power system under study. The suite of models includes: the ICF Integrated Planning Model, the ICF Coal and Electric Utilities Model, a confidential system designed to support energy trading in the eastern United States, and CRA's North American Electricity and Environment Model (NEEM).
- Developed extensive expertise with the GE MAPS, GE MARS, and Ventyx's PROMOD and PROSYM models. Applications have included market price forecasting, asset valuation, and stranded cost analysis.

Exhibit A
Tab 21
Schedule
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Publications

"The Reliability Implications of EPA's Proposed Transport Rule and Forthcoming Utility MACT," CRA White Paper, November 2010.

"A Consistent Framework for Measuring Extra High Voltage Transmission Benefits and Costs" (with Barclay Gibbs and Ralph Luciani). Federal Energy Regulatory Commission Technical Conference on Planning Models and Software, Washington, DC, June 10, 2010.

"Economic Analysis of California Climate Initiatives: An Integrated Approach" (with P. Bernstein, D. Montgomery, T. Rutherford, A. Smith, and S. Tuladhar), Electric Power Research Institute, 2007.

"Integrated Electric Power and Heat Planning in Russia: The Fossil-Nuclear Tradeoff" (with J. Blaney), *Fourth International Conference on Nuclear Engineering: Conference Proceedings*, March 1996.

"The Dynamic Energy and Greenhouse Emissions Evaluation System" (with D. Klein, J. Haydel, P. Custode, D. Carter, B. Schillo, and J. Golden), *International Association for Energy Economists, 15th Annual North American Conference Proceedings*, October 1993.

"Carbon Taxes and Carbon Limits Are Not the Same" (with D. Klein, D. Doyle, and J. Golden), *International Association for Energy Economists, 15th Annual North American Conference Proceedings*, October 1993.

"The Environmental and Economic Value of DSM: A National Level Assessment" (with J. Haydel, D. Kathan, and S. Daryanani), *Proceedings of the ACEEE 1992 Summer Study on Energy Efficacy in Buildings*.

"A Short-term Fuel Purchasing and Inventory Model for Electric Utilities" (with C. Hoff Stauffer and G. Vicinus), in Benjamin Lev (ed.), *Production Management: Methods and Studies*, North Holland, 1987.

"Investment Planning for Hydro-Thermal Power System Expansion: Stochastic Programming Employing the Dantzig Wolfe Decomposition Principle" (with A.P. Sanghvi), *IEEE Transactions on Power Systems*, Vol. PWRS1, No. 2, May 1986.

"Incorporating Explicit Loss Load Probability Constraints for Power System Capacity Planning" (with A.P. Sanghvi), *Journal of Electrical Power and Energy Systems*, Vol. 6, No. 4, 1984.

"Fuel Diversification, Stockpiling, and System Inter Connection Strategies for Minimizing Power System Vulnerability to Energy Shortages" (with A.P. Sanghvi and M.H. Wagner), in Benjamin Lev (ed.), *Energy Models and Studies*, North Holland, 1982.

"Procedures for Planning for Power System Vulnerability: An Optimization Model for Resource Planning Under Uncertainty" (with R. Spann and A.P. Sanghvi), *IEEE Transactions on Power Apparatus and Systems*, Vol. 101, No. 5, June 1982.

"A Class of Algebraic Surfaces of General Type Constructed from Quaternion Algebras," *Pacific Journal of Mathematics*, Vol. 76, No. 1, 1978.

"On Surfaces Obtained from Quaternion Algebras Over Real Quadratic Fields," *Bulletin of the American Mathematical Society*, Vol. 82, No. 5, September 1976.

Presentations

"Electric Sector Impacts: CSAPR, MATS, etc.," (with B. Gibbs), Resources for the Future meeting, July 19, 2012.

"EPA Mercury and Air Toxics Standards (MATS): Requirements, Compliance Strategies, and Impacts," (with B. Gibbs), New EPA Power Plant Regulations Conference, Washington DC, May 21, 2012.

"Potential Coal Unit Retirements Under Upcoming EPA Rules," (with B. Gibbs), A Primer on Impending EPA Regulations Affecting the Power Sector for Lawyers and Energy Professionals, Energy Bar Association Meeting, Washington DC, May 4, 2011.

"Will Utility MACT and the Transport Rule Result in Reliability Problems?" Bipartisan Policy Center Workshop on Reliability Impacts of Power Sector Developments, Washington, DC, December 7, 2010.

"Transmission Benefit-Cost Methodologies," Fast Forward: Power Transmission Assets and Interconnection Reform Roundtable Seminar, McDermott Will & Emery, Washington, DC, November 16, 2010.

"Electric Utility Merger Regulatory Developments" (with W. Hieronymus), 13th Annual Energy & Commodities Conference, McDermott Will & Emery, Houston, TX, October 14–15, 2010.

"Alternative Power: The Alternatives" (with B. Gibbs), 1st Power & Alternative Energy Law Conference, Houston, TX, April 22, 2008.

"Greenhouse Gas Policy Analysis: A Hybrid Top-Down, Bottom-Up Approach" (with P. Bernstein and D. Montgomery), Electric Utilities Environmental Conference, Tucson, AZ, February 23–25, 2007.

"Environmental Allowance Pricing," Winter Workshops on Energy Law, sponsored by Energy & Mineral Law Foundation, Fort Myers Beach, FL, January 26–28, 2006.

"Developing Least-Cost New Capacity Plans Under Uncertainty" (afternoon session) and "Developing Least-Cost Multi-Pollutant Control Strategies Under Uncertainty" (morning session), Power Plant Emissions Reduction Technologies & Strategies: Coal Sustainability Under New Environmental Regulations, sponsored by INFOCAST, Washington, DC, October 5–7, 2005.

"Quantifying Key Decision Factors Across the Spectrum from Retirement to Plant Improvements" (with P. Spinney, NeuCo), EPRI Workshop on Improving Operation Flexibility, Hot Springs, VA, October 1–3, 2003.

"Incorporating Energy and Environmental Regulation into a Real Options Framework" (with S. Konar and M. Van Belle), Valuing Electric Power Assets & Companies: Using Real Options Methodology, sponsored by INFOCAST, Orlando, FL, December 4–7, 2000.

"Market-Oriented, Multi-Pollutant Approaches to Environmental Management: The Utility Perspective" (with J. Speyer), EEI Fall 2000 Legal Conference, Amelia Island, FL, October 15–18, 2000.

Exhibit A
Tab 21

Schedule "Transmission Pricing Issues for RTOs" (with S. Henderson), Congestion Pricing and Forecasting,
Page 10 of 37 sponsored by INFOCAST, Chicago, IL, June 21–23, 2000.

"Forecasting Power Prices in Deregulated Markets," Merchant Plant Development & Finance, sponsored by INFOCAST, Houston, TX, March 29–31, 2000.

Chaired a conference on New NO_x Regulations and Power Generation in Competitive Markets, sponsored by INFOCAST, Washington, DC, November 3–5, 1999.

"Pricing for Capacity," Electricity Market Pricing Conference sponsored by EUCI, Vail, CO, August 9–11, 1999.

Chaired (and presented at) a conference on New NO_x Regulations and Power Generation in Competitive Markets, sponsored by INFOCAST, Washington, DC, April 29–30, 1999.

"Designing an Optimal Strategy" (with M. Chupka, J. Letzelter, and C. Mann), Workshop on the Cost of NO_x Controls, at the New NO_x Regulations and Power Generation in Competitive Markets Conference, sponsored by INFOCAST, Washington, DC, April 29–30, 1999.

"Strategies for Maximizing the Value and Profitability of Operationally Constrained Plants," The 3rd Merchant Plant Development Conference, sponsored by INFOCAST, Chicago, IL, March 22–24, 1999.

"Market Price Forecasting," Developing & Financing Merchant Power Plants: Pre-Conference Workshop, sponsored by IBC USA Conferences, Inc., Washington, DC, June 3–5, 1998.

"Locational Pricing and Contracting in Bid-Based Power Pools" (with J. Graves, S. Henderson, and P. O'Rourke), Progressive Contracting Techniques, sponsored by IBC USA Conferences, Inc., Washington, DC, May 4–5, 1998.

"Environmental Regulation and Asset Values in Competitive Markets" (with M. Chupka), Public Utilities Reports Seminar, sponsored by Public Utilities Fortnightly, Phoenix, AZ, April 30–May 1, 1998.

"Valuing Generating Assets in a Deregulated Environment" (with R. Borlick), Conference on Market Price Forecasting, sponsored by IBC USA Conferences, Inc., San Francisco, CA, March 9–10, 1998.

"Valuing Energy Projects in a Deregulated Environment," Conference on Market Price Forecasting, sponsored by IBC USA Conferences, Inc., Washington, DC, October 23–24, 1997.

"Valuing Energy Projects in a Deregulated Environment," Purchased Power Contracts Conference, sponsored by IBC USA Conferences, Inc., Washington, DC, January 27–28, 1997.

MICHAEL J. ROGER



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ASSOCIATE CONSULTANT, RATES AND REGULATION

Michael has over 33 years experience in the electricity industry dealing in areas of finance, cost allocation, rate design and regulatory environment. Michael has been an expert witness at numerous Ontario Energy Board proceedings and has participated in task forces dealing with his areas of expertise. Michael is a leader and team player that gets things done and gets along well with colleagues.

PROFESSIONAL OVERVIEW

Elenchus

2010 - Present

Associate Consultant, Rates & Regulation

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

Hydro One Networks Inc.

2002 - 2010

Manager, Pricing, Regulatory Affairs, Corporate and Regulatory Affairs

- In charge of Distribution and Transmission pricing for directly connected customers to Hydro One's Distribution system, embedded distributors and customers connected to Hydro One's Transmission system. Determine prices charged to customers that conform to guidelines and principles established by the Ontario Energy Board, (OEB). Provide 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. Keep staff focused and motivated and work as a team member of the Regulatory Affairs function. Provide support to other units as necessary.

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

Ontario Hydro

1998 - 1999

Acting Director, Financial Planning and Reporting, Corporate Finance

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

Financial Advisor, Financial Planning and Reporting , Corporate Finance

1997

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

Section Head, Pricing Implementation, Pricing

- 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 customers and support the cost allocation process used to determine prices to end users.
- The section was also responsible for the derivation of wholesale prices charged to Municipal Electric Utilities and retail prices for Direct Industrial customers, preparation of Board Memos presented to Ontario Hydro's Board of Directors and support the department's involvement at the Ontario Energy Board Hearings by providing expert witness testimony.

Section Head, (acting), Power Costing, Financial Planning & Reporting, Corporate Finance

1994 - 1995

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

Additional Duties

1991

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

Analyst, Rates

1983 - 1986

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

- Evaluating cost data related to electricity production by nuclear plants and preparing short term forecasts of costs used by the company. Maintain and improve computer models used to analyse the data.
- Review Ontario Hydro's forecast of customer revenues, report actual monthly, quarterly and yearly results and explain variances from budget. Support the development of new computerized models to assist in the short-term forecast of revenues.

Project Development Analyst, Financial Forecasts

1979 - 1980

Title

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

Assistant Engineer – Reliability Statics, Hydroelectric Generations Services

1978 - 1979

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

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.

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

PRESIDENT

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

PROFESSIONAL OVERVIEW

Founder of Elenchus Research Associates Inc. (ERAI) 2003

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

Founded the Canadian Energy Regulation Information Service (CERISE) 2002

- CERISE is a web-based service providing a decision database, regulatory monitoring and analysis of current issues on a subscription basis. Staff are Keith Bryan, Rachel Chua and rotating co-op students. Web address: www.cerise.info

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

- ECS was divested as a separate company in 2003.
- There are presently four ECS consultants: Bill Harper, Roger Higgin and James Wightman. Web address: www.econalysis.ca

Ontario Economic Council, Research Officer (Government Regulation)	1978 - 1980
Research Assistant	1973 - 1978
Univ. of Toronto, Faculty of Management Studies	
 Bell Canada	 1972 - 1973
Western Area Engineering	

REGULATORY/LEGAL PROCEEDINGS

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

Before the Ontario Energy Board

2011	<ul style="list-style-type: none">• Cost Allocation evidence for several Ontario electricity distributors (2012 Cost of Service)
2010	<ul style="list-style-type: none">• Natural Resource Gas Rate Case (Evidence: Proposed Incentive Regulation Mechanism)• Cost Allocation evidence for several Ontario electricity distributors (2011 Cost of Service)
2009	<ul style="list-style-type: none">• Hydro One Distribution Rate Case (Evidence: Principles for Density Based Rates)• Cost Allocation evidence for several Ontario electricity distributors (2010 Cost of Service)
2008	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• 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)
- Union Gas, Separation of Ancillary Services (EBO 177-17)
- 1997 • 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)

- Consumers' Gas, 1993 Test Year Rate Case (EBRO 479)
- 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)

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)
 - Manitoba Hydro, General Rate Application, 1996 and 1997
- 1995
 - 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)
 - Manitoba Hydro, General Rate Application, 1994 and 1995
- 1993
 - 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)

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

- Insurance Corporation of British Columbia, Financial Allocation Methodology (Evidence: Review of ICBC's Financial Allocation Methodology, with ICBC)
- Pacific Northern Gas West and Northeast, General Rate Application
- Utilicorp Networks Canada (formerly West Kootenay Power), Annual Review, 2001
- Pacific Northern Gas, 2000-01 General Rate Application (negotiated)
- West Kootenay Power, Annual Review, 2000
- 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
- BC Gas, Southern Crossing Pipeline Application (Revised)
- Pacific Northern Gas, 1998-99 Revenue Requirement/Rate Design (Evidence on PNG's Cost of Service Methodology)
- 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)
- Pacific Northern Gas Shared Services
- Retail Access and Unbundling Tariff Hearing (suspended) (Evidence on the impact of market restructuring on costs and rates)
- 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)
- Generic System Expansion Hearing
- BC Gas - General Rate Application (negotiated settlement)
- BC Hydro, 1994 Rate Increase Application
- West Kootenay Power, 1994/95 Rates and Integrated Resource Plan (Evidence: Review of WKP's Integrated Resource Plan)
- 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

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)

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)

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)

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

- New Brunswick Power Distribution Corporation, PDVSA Deferral Account (Evidence: Treatment of the Petroleos De Venezuela, S.A. (PDVSA) Settlement in Setting Rates)

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)

Before the National Energy Board

- 1999
 - BC Gas, Southern Crossing Project

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)

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

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)

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*

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)

Before the Saskatchewan Court of Queen's Bench

- 1993 • Evidence regarding market dynamics and competition policy.

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

Commercial Arbitrations

Current: Two arbitrations in Alberta

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

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

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:

Papers and Research Projects

- *Report on the Effects of Separating Hydro One’s Transmission and Distribution Functions.*
- *Report on Hydro One Privatization Options.*
- *The Impact of Complete Deregulation on Market Efficiency of the Gas and Electric Industry in Alberta Post-2005 Assuming Current Market Dominance.*
- *Analysis of a Possible Equity Infusion for Ontario Hydro: Potential Implications for Financing Costs.*
- *Volatility in the Ontario Electricity Market, by ECS with Snelson International Energy.*
- *An Assessment of Price Volatility in the Ontario Electricity Market.*
- *Analysis of MTS Privatization Plan.*
- *Comments on the Issues Identified in the December 1995 Working Paper of the Advisory Committee on Competition in Ontario’s Electricity System, A submission on behalf of The Power Workers’ Union.*
- *Telecommunications Municipal/Franchise Tax Design Options (with Dr. E. Slack).*
- *The Implications of Phase III Costing for the Rates and Toll Settlements of Independent Telephone Companies (with Andrew Roman).*
- *Submission to the Department of Communications (Canada) (August 1990): Towards Competition in Telecommunication and Cable TV Services: A Single Switched Broadband Distribution Facility (Comments of the Public Interest Advocacy Centre, with Robert E. Horwood and Gaylord Watkins).*
- *Submission to the Department of Communications (Canada) (May 1990): Fibre Optic Networks: Facilitating Competition in Telecommunication and Television Services for the Benefit of All Users (Comments of the Public Interest Advocacy Centre, with Robert E. Horwood and Gaylord Watkins).*
- *Submission to the CRTC concerning cable television regulation on behalf of the Public Interest Advocacy Centre (with Carmen Baggaley).*
- *Analysis of financing alternatives for Toronto Hydro's 13.8 kV conversion program for the City of Toronto Parks and Recreation Department.*

- Analysis of the MacEachen White Paper on "Inflation and the Taxation of Personal Investment Income" for the Ontario Economic Council.
- Submission to the Parliamentary Committee commenting on the April 1985 Finance Green Paper, "The Regulation of Financial Institutions: Proposals for Discussion" prepared on behalf of the Public Interest Research Centre.

Financial Markets:

Papers and Research Projects

- Analysis of the potential consumer benefits from insurance retailing by financial institutions in Canada for the Public Interest Research Centre.
- Development of a financial model for projecting the financial implications of alternative corporate structures.
- Developed model for projecting cash flows for a major land development project.
- Analysis of the impact on the capital markets of changes to the investment rules for public sector pension funds for the Task Force on the Investment of Public Sector Pension Funds (with Prof. John Bossons).
- Review of the OSC proposals and alternatives for relaxing ownership restrictions in the securities industry prepared for the Ontario Securities Commission for submission to the Premier's Office (with Prof. Tom Courchene).
- Analysis of the Impact of Opening the Ontario Securities Market on the Economy of Toronto for a major Canadian securities dealer.
- Response to the December 1984 "Interim Report of the Ontario Task Force on Financial Institutions" for Consumer and Corporate Affairs (Canada).
- Report on functional integration in the Canadian financial services sector for the Australian Merchant Bankers' Association.
- Analysis of the Canadian and American Experience with Partially Negotiable Brokerage Commission Rates for the Australian Merchant Bankers Assoc.
- Served as a North American contact for the Office of Fair Trading (United Kingdom) providing information on developments in the debate over unfixing of brokerage fees, entry of banks into securities dealing and related matters.
- Development of a computerized package for analyzing the effects of alternative tax systems on business investment. Prepared for the Ontario Government reference to the Ontario Economic Council to study a separate personal income tax for Ontario.
- "An Analysis of the Use of Component Internal Rates of Return for Fund Performance Measurement" for Canadian National Investments.
- Analysis of Canadian Stock Market Data (development of a computer package for evaluating investment portfolio efficiency).
- Redesign and periodic updating of the financial, analysis methodology for Alfred Bunting and Co.
- Developed an APL computer package for teaching Business Finance concepts.

- Potential Impact of Rent De-Control on Selected Markets in Ontario
- Review of the Ontario Auditors analysis of the cost of social housing.
- *Future Social Housing Delivery Opportunities in Metro Toronto.*
- Development of a model for projecting core need households to 2011.
- Analysis of the City of Toronto's approach to the valuation of certain properties developed under the *Rental Housing Protection Act, 1989.*
- *Security of Tenure Issues Pertaining to Co-operative Housing.*
- *Rent Regulation in Ontario*, a report prepared as expert Evidence for a Charter of Rights challenge of Ontario's system of rent regulation (with W.T. Stanbury).
- Feasibility study of enhancements to long term housing forecasting models (demographic factors) with David Foot.
- Feasibility study of enhancements to long term housing forecasting models (economic factors).
- Review of the housing situation in the Greater (Toronto) Metropolitan Region in 1988 and the next decade for the Ontario Ministry of Housing.
- Treatment of the Assisted Rental Program under rent regulation for the Ontario Ministry of Housing.
- Alternatives for implementing of the chronically depressed rent provision of the Residential Rent Regulation Act, 1986.
- Projected rental housing requirements to 1996, by unit rent level for Ontario Ministry of Housing.
- Analysis of the effects of the Canadian Home Ownership Stimulation Program on housing starts for Canada Mortgage and Housing Corporation.
- Energy Efficiency of New Housing (with Peat, Marwick and Partners and Scanada Consultants Limited) for Canada Mortgage and Housing Corporation.
- A Model of Supply and Demand in the Market for Housing for the Ontario Ministry of Housing.
- Several publications and presentations shown in the Academic Profile (see below).

Other Areas:

Papers and Research Projects

- Economic analysis of the market impact of the merger of two Canadian trucking companies in the context of the Competition Act.
- Assisted a Joint Task Force of the Ontario Ministries of Social Services and Health to develop a cost project model of alternative long term health care delivery systems.
- Study of Tax Incentives for Film and Television (joint project with Dr. E. Slack) for the Canadian Film and Television Association.
- Economic Analysis of Tax Incentives for the Film Industry (joint project with Dr. E. Slack) for the Department of Communications.

- Economic Impact of Cultural Institutions for Ontario Association of Art Galleries with the Ontario Federation of Symphony Orchestras and the Toronto Theatre Alliance.
- Economic Impact of Art Galleries' Expenditures on their Local Communities for the Ontario Association of Art Galleries.
- Developed a case study of the potash pro-rationing scheme invoked by the Saskatchewan government for the Faculty of Management Studies, Univ. of Toronto.
- Analysis of Regional Municipality of Niagara financial information for the Niagara Region Review Commission.
- Analysis of Ottawa/Carleton regional government's financial information, and comparison with other regional governments, using the MARS database (with Dr. E. Slack).
- A Dynamic Simulation Model of the North York Secondary School System for Planning for Declining Enrolment for the Ontario Institute for Studies in Education, Department of Educational Planning (with Dr. S. Padro).
- Development of an extension to the Limits to Growth World III Model incorporating commodity prices, technology, disaggregated regions and energy resources into the model.
- Development of a computer program for solving the Dynamic Transportation Problem (with Professors Sethi and Bookbinder at the Faculty of Management Studies, University of Toronto).

PRESENTATIONS

- "Innovations in Rate Design", 2010 CAMPUT Training Session
- "Cost of Service Filing Requirements" (2010) 2nd Annual Applications Training for Electricity Distributors, Society of Ontario Adjudicators and Regulators in cooperation with the Ontario Energy Board
- "Green Energy Act" (2010) 2nd Annual Applications Training for Electricity Distributors, Society of Ontario Adjudicators and Regulators in cooperation with Ontario Energy Board
- "Rate Design", 2009 CAMPUT Training Session
- "How To Build Transmission and Distribution to Enable FiT: The Role of Distributors", EUCI Conference on Feed in Tariffs, Toronto, Sept. 2009
- "Distributor Mergers and Acquisitions: Potential Savings", 2007 Electricity Distributors Ass
- "Beyond Borders" Regulating the Transition to Competition in Energy Markets (with Fred Hassan), EnerCom Conference March 2006.
- "Low-Income Energy Plan for Peterborough City & County", 2006 LIEN-AHAC Conference
- "The "Deregulated Retail Energy Sector in Ontario", Toronto Association of Business Economists, Oct. 2003.
- "Other Approaches to Rate Regulation", CAMPUT Annual Meeting, Sept. 2003.
- "Price Projection: Will the Rate Freeze be Revenue Neutral?" at Canadian Institute Conf., The Impact of Ontario's New Electricity Market on Large Power Consumers Jan. 2003.

- “Managing Energy Price Risk: Impact of Market & Regulatory Developments on Price Risk Management”, Canadian institute Conference, Toronto, October 21, 2002.
- “Location Based Marginal Pricing: Will it Happen?” Ontario Energy Contracts, Insight Conference, Toronto, October 1, 2002.
- “The Evolution of the North American Energy Market” Canadian Gas Association Executive Conference, Vancouver, June 2002.
- “Alternate Dispute Resolution: Can Everyone Win?” Canadian Gas Association Breakfast, Whistler, British Columbia, May 7, 2002.
- “Incentive Regulation and Commodity Competition Impacts on Quality of Service & Rates”, CAMPUT Regulatory Educational Conference, Whistler, BC, May 7, 2002.
- “Energy Deregulation Developments and Impacts on the HVACR Industry”, HRAI’s 33rd Annual Meeting, August 23-25, 2001 Huntsville, Ontario.
- “Natural Gas Delivery Regulation in Canada”, HRAC Conference on Natural Gas in Nova Scotia, Halifax, Nova Scotia, August 25, 1999.
- “Licensing as a Regulatory Approach” Thirteenth Annual CAMPUT Regulatory Educational Conference, Saint John, New Brunswick, May 4, 1999.
- “The Impact of Restructuring Electricity Markets on Customers”, West Kootenay Power 1998 Annual Conference, The Dawn of Customer Choice, Kelowna, B.C., Dec. 2, 1998.
- “Gaining Access to the Retail Customer”, *Electricity Competition in Ontario, New Rule, New Opportunities, New Players* (Canadian Institute Conference), Toronto, Oct. 1998.
- “The Future: Mega-BTU Inc.?” (Plenary session) Twelfth Annual CAMPUT Regulatory Educational Conference, Banff, Alberta, April 27, 1998.
- “Protecting Low Income Consumers’ Access: Lessons Learned From Other Countries,” Twelfth Annual Energy Affordability Conference, National Consumers Law Center, Washington, D.C, February 26-27, 1998.
- “Competition: What happens downstream of the meter?” (Plenary) Eleventh Annual CAMPUT Regulatory Educ. Conference, Whistler, B.C., May 6, 1997.
- “Brokers, Marketers and the Public Interest” Eleventh Annual CAMPUT Regulatory Educational Conference, Whistler, B.C., May 6, 1997.
- “Separation of Gas Supply, Merchant Functions & Other Alternatives,” Tenth Annual CAMPUT Regulatory Educ. Conf., Niagara-on-the Lake, May 1, 1996.
- “The Impact of Deregulation on the Public Interest,” Tenth Annual CAMPUT Regulatory Educational Conference, Niagara-on-the Lake, April 30, 1996.
- “Marketing to Low and Moderate Income Consumers in the New Competitive Market: Lessons Learned From Other Industries,” Tenth Annual Energy Affordability Conference, National Consumers Law Center, Washington, D.C, February 22, 1996.
- “Where Should We be Going?” OEB Ten Year Market Review Workshop, Jan. 31, 1996.
- “Restructuring the Electrical Power Industry in Ontario” for the Board of Directors of Ontario Hydro on behalf of the Power Workers’ Union, August, 1995.
- "A New Vision for Ontario's Electric Demand/Supply Future" panel presentation, Opening Plenary Session of the Canadian Independent Power Conference, Toronto, Dec. 1993.

- "Trends in Rental Housing Affordability by Income Level in Ontario" presented at the 1992 meetings of the Canadian Economics Assoc., Charlottetown, PEI.
- "An Evaluation of Rent Regulation as an Instrument for Meeting the Housing Needs of Renters in Ontario," presented to the Ontario Standing Committee on General Government, August, 1991.
- with S.W. Hamilton (Sept 1990) "Housing and the Regulatory Environment", a paper presented at the Housing Young Families Affordability Symposium, (Vancouver: Canadian Housing and Renewal Association/Canada Mortgage and Housing Corp.)
- "New Telecommunications Technologies: Who Pays? Who Benefits?" presented at the 1990 (June) meetings of the Canadian Economics Assoc., Victoria, B.C.
- with W.T. Stanbury, (1989) "Rent Controls as a Prisoner of War Game", Canadian Real Estate Research Bureau, Faculty of Commerce and Business Administration, University of British Columbia, #89-ULE-019.
- "The Implications of Rent Regulation for Housing Market Models" presented at 1989 (June) meetings of the Canadian Economics Association, Quebec City.
- "Price Caps - An Alternative to Rate of Return Regulation?" at the Canadian Association of Members of Public Utility Tribunals/Centre for the Study of Regulated Industries, Annual Regulatory Studies Training Programme, McGill University, May 14-18, 1989.
- "Living with Rent Regulation in Ontario" at the 35th North American meetings of the Regional Sciences Association, Toronto, November 1988.
- "A Survey of the Research of the Thom Commission," at *Rent Control: The International Experience*, John Deutsch Institute Roundtable, Queen's University, September, 1987.
- Invited address on "Forecasting the Regulatory Environment of Financial Institutions" sponsored by the University of Michigan - Flint as the 1985 paper for their annual *Lectures on the American Economy and the Business Community* series.
- "Collapsing Barriers Between Banking and Other Financial Institutions" at the 1984 Canadian MBA Conference, McMaster University.
- The economic impact of cultural activities for conferences of National Museums of Canada, Canadian Conference on Heritage Resources, Canadian Museums Association, Ontario Association of Art Galleries, and Ontario Federation of Symphony Orchestras.

PUBLICATIONS

Refereed Books and Monographs:

- with W.T. Stanbury (February 1990) *Rent Regulation: The Ontario Experience*, (Vancouver: The Canadian Real Estate Research Bureau).
- with W.T. Stanbury (January 1990) *The Housing Crisis: The Effects of Local Government Regulation*, (Vancouver: The Laurier Institute).
- with T. Courchene and L. Schwartz (October 1986) *Ontario's Proposals for the Canadian Securities Industry*, Observation No. 29, (Toronto: C.D. Howe Inst.).

- (1983) *Price Competition in the Canadian Securities Industry: A Test Case of Deregulation*, (Toronto: Ontario Economic Council).
- with G.F. Mathewson (1982) *Information Entry and Regulation in Markets for Life Insurance - Part II Overview and Policy Implications*, (Toronto: Ontario Economic Council).

Refereed Articles:

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

Other Publications:

- (1992) *Technology, Competition and Cross-subsidization in the Canadian Telecommunications Industry*, (Ottawa: Public Interest Advocacy Centre).
- (April 1990) *Paying for What You Need: Technological Advances and Competition in Telecommunications*, (Ottawa: Public Interest Advocacy Centre).
- with Andrew Roman and Robert Horwood, (1989) *Insurance Retailing by Financial Institutions in Canada*, (Ottawa: Public Interest Research Centre).
- with Douglas G. Hartle (1983) "The TAX-2 Model and Results" in *A Separate Personal Income Tax for Ontario: An Economic Analysis*, Special Research Report, (Toronto: Ontario Economic Council).
- (1982) "Commentary" in *Inflation and the Taxation of Personal Investment Income: An Analysis and Evaluation of the Canadian 1982 Reform Proposals* (edit. D.W. Conklin), Special Research Report (Toronto: Ontario Economic Council).

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).

RESEARCH MANAGEMENT

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|-------------|---|
| 1983 – 1987 | <ul style="list-style-type: none"> • 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 | <ul style="list-style-type: none"> • 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. |

OTHER ACTIVITIES

- Organizing Committee for the Concert for Inclusion in support of ParaSport Ontario
- Chairman of the Board of Directors of the Ontario Energy Marketers Association (formerly the Direct Purchase Industry Committee) and Executive Director of the Association.
- Invited participant in the Ontario Energy Board's External Advisory Committee.
- Panelist for "Administrative Tribunals and ADR", Osgoode Hall Law School, Professional Development Program, Continuing Legal Education, April 1997.
- Participation on behalf of OCAP in consultative processes related to direct purchase and integrated resource planning in the Ontario natural gas industry.
- Former Member of the Board of Directors of East Toronto Community Legal Services.
- Former Chairman of the Board of Directors of the Festival of Canadian Theatre.
- Articles in the editorial section of the Financial Times of Canada on policies for reforming Ontario's system of rent regulation (June 1990) and federal proposals regarding bank directorships (February 1991).
- Numerous appearances on CBC radio and television commenting on energy industry issues, competition, regulation and mergers in the Canadian economy.
- Refereed articles and research studies for *Canadian Public Policy*, *Queen's Quarterly* and *Consumer and Corporate Affairs*, Canada.
- Several organizations have been assisted in developing their research agendas, writing submissions to government on economic issue, or in other advisory capacities. Clients include the Public Interest Research Centre (topics include airline deregulation, Via Rail, telephone solicitation, Bell Canada's rate structure, frequent flyer programs, price cap regulation, and home equity conversion), Ontario Association of Art Galleries (arts funding and economic impact), Public Affairs Management, Inc., City of Toronto, Parks and Recreation Department, and Goldfarb Consultants.

CLIENTS

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	

Industry and Other Associations

Association for Furthering Ontario's Rental Development
Australian Merchant Bankers' Association
Canadian Association of Members of Public Utilities Tribunals (CAMPUT)
Canadian Business Telecommunications Alliance
Canadian Film and Television Association
Canadian Independent Telephone Association
Canadian Museums Association
Cornerstone Hydro Electric Concepts
Electricity Distributors Association
Manitoba Keewatinowi Okimakanak
Ontario Association of Art Galleries
Ontario Energy Association
Ontario Federation of Symphony Orchestras
Power Workers' Union (CUPE 1000)
Toronto Theatre Alliance

Consumers' Associations

Alberta Council on Aging
Alert on Welfare
British Columbia Old Age Pensioners' Association
Canadian Pensioners Concerned
(Nova Scotia Division)
Consumers Association Of Canada
(National)
(Manitoba Branch)
(Alberta Branch)
(Northwest Territories Branch)
Consumers Fight Back Association
Council of Senior Citizens' Organizations
Co-operative Housing Association of Ontario
Federated Anti-Poverty Groups of British Columbia
Action réseau consommateurs (formerly La Fédération
Nationale des Associations de Consommateurs du Québec)
Manitoba Society for Seniors
The National Anti-Poverty Organization
Nova Scotia League for Equal Opportunities
Ontario Coalition Against Poverty
Option Consommateurs
PEI Council for the Disabled
PEI Senior Citizens Federation
People on Welfare for Equal Rights
Public Interest Research Centre
Rural Dignity of Canada
Rural Dignity, PEI Chapter
Senior Citizen' Association
Social Action Commission

Counsel for Consumers' Associations

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

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Exhibit A

Tab 21 **Government**

Schedule

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

Provincial

Alberta Department of Energy
Commission of Inquiry into Residential Tenancies
New Brunswick, Department of Energy
Niagara Region Review Commission
Ontario Economic Council
Ontario Energy Board
Ontario Institute for Studies in Education, Department of Educational Planning
Ontario Ministry of Community and Social Services
Ontario Ministry of Health
Ontario Ministry of Housing (Corporate Policy and Planning; Rent Review Policy, Housing Field Operations)
Ontario Securities Commission
Ontario Task Force on the Investment of Public Sector Pension Funds
Ottawa/Carleton Region Review Commission
University of Toronto

Other

City of Calgary Electrical System
City of Peterborough
City of Toronto, (Telecom; Housing; Parks and Recreation)
Halifax Regional Municipality
Manitoba NDP Caucus
Office of Fair Trading (United Kingdom)
St. Francis Xavier University
Toronto Harbour Commissioners
Four municipally operated public utility telephone system

ACHEDEMIC ACHIEVEMENTS

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|------|---|
| 1975 | Masters in Business Administration in Economics and Management Science, University of Toronto |
| 1972 | Bachelors of Science in Electrical Engineering, University of Toronto |