

FORM A

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Proceeding:

Ontario Energy Board

Enbridge Gas Distribution Inc.

EB-2015-0049

ACKNOWLEDGMENT OF EXPERT'S DUTY

1. My name is Trent Winstone. I live at Wasaga Beach, in the Province of Ontario, Canada.
2. I have been engaged by or on behalf of Enbridge Gas Distribution Inc. to provide evidence in relation to the above-noted proceeding before the Ontario Energy Board.
3. I acknowledge that it is my duty to provide evidence in relation to this proceeding as follows:
  - (a) to provide opinion evidence that is fair, objective and non-partisan;
  - (b) to provide opinion evidence that is related only to matters that are within my area of expertise; and
  - (c) to provide such additional assistance as the Board may reasonably require, to determine a matter in issue.
4. I acknowledge that the duty referred to above prevails over any obligation which I may owe to any party by whom or on whose behalf I am engaged.

Date August 26/2015

Trent Winstone  
Signature

Trent Winstone  
Managing Consultant

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#### Professional History

- BDR North America
- Aeras Management Consulting
- Enbridge Consumers Gas
- Ainley and Associates Ltd.

#### Education

- MFA (Finance) Queens University, Canada
- Bachelor of Engineering Science (Civil),  
The University of Western Ontario, Canada
- Professional Engineers of Ontario  
(member)

## Trent Winstone

Trent Winstone is an Associate Director in Navigant's Global Energy Practice with over 20 years of broad-based experience in both electricity and natural gas, specializing in regulatory compliance issues, financial forecasting, project feasibility, and tariff design. Mr. Winstone has been involved in the economic evaluation of various power generation projects, transmission and distribution projects, power purchase contracts, and long term development strategies. He has performed cost of service studies and designed retail tariffs for electricity utilities in India and Pakistan.

Mr. Winstone has been employed in the natural gas industry bringing a strong background in the areas of capital investment feasibility, regulatory finance, strategic issue identification and risk analysis. He is experienced at developing relevant and accurate financial models and integrating the results with qualitative considerations to recommend effective solutions. Trent began his career as a municipally based financial and engineering consultant.

## Professional Experience

### *Tariff Design and Rate Impact Studies*

- » Ontario Energy Board – assisted in the preparation of a discussion paper on potential rate mitigation measures, including alternative thresholds or triggers to determine when rate mitigation needs to be employed.
- » Water and Power Development Authority (WAPDA), Pakistan Completed the design of retail tariffs for the Lahore Electric Supply Company.
- » Fortis Ontario - identified regulatory issues and financial benefits of connecting Cornwall Electric to the Ontario transmission system. The evaluation resulted in negotiating lower electricity supply costs from Cedars Rapids Transmission and Hydro Quebec.
- » Great Lakes Power - completed a rate impact calculation for a transmission project leave to construct application to the Ontario Energy Board.

- » Pikangikum Grid Extension Project (Pikangikum Indian Reservation, Ontario) – completed a rate impact analysis for the various alternatives to connect the Pikangikum Indian Reservation to the Ontario electricity grid. The purpose of the analysis was to determine the most cost effective (minimal rate impact) means of supplying power to the community.
- » City of Cornwall - reviewed Cornwall Electric's rate application on behalf of the City of Cornwall to ensure compliance with contractual terms and conditions, including investigation of power purchase arrangements.
- » West Perth Mitchell & Orangeville Distribution Utilities - unbundled tariff design and preparation of evidence for electricity distribution utilities in accordance with the Ontario Energy Board Electricity Rate Handbook.
- » Enbridge Gas Distribution – feasibility and rate impact analysis for numerous system expansion leave to construct applications and preparation of written evidence. Acted as a witness before the Ontario Energy Board.

#### *Capital Investment & Project Feasibility*

- » BC Hydro - Completed a review of BC Hydro's Electricity Purchase Agreement (EPA) terms for hydro and wind generation procurements. The purpose of the study was to investigate if various EPA contract provisions could be made more flexible and shift less risk to the supplier, and ultimately achieve a better balance of costs and benefits for BC Hydro rate payers. The study included collaboration with stakeholders including independent power producers and lenders, and the development of a detailed financial model of the EPS contract provisions and proposed changes.
- » Guelph Hydro (Ecotricity Guelph Inc) - financial and analytic services to support the development of four cogeneration projects under the OPA's CHPSOP power procurement initiative. The various project configurations included cogeneration turbines and engines, auxiliary boilers, and district heating and cooling infrastructure. These assignments included the developed a detailed operational and financial model for scenario analysis, and financial optimization of the project.
- » Ontario Power Authority CHP Procurement - provided strategic advice to the Ontario Power Authority (OPA) on procurement process for CHP (cogeneration) capacity, including support in development of the RFP, project qualification and proposal evaluation criteria, development of the CHP proposal evaluation model, communications with stakeholders at technical sessions, and development of the CHP contract and CHP Power Purchase Agreement.

- » Oklahoma Gas and Electric (OG&E) – conducted an analysis of OG&E’s SmartPower business case (advanced metering infrastructure, distribution automation and demand reduction) to support a request to the Oklahoma Corporation Commission (OCC) for cost recovery. This included a project feasibility and rate impact analysis, and share price impact calculation.
- » Fortis Ontario – Leave to Construct application to the OEB on behalf of Canadian Niagara Power Inc. Acted as the lead financial resource in the development of the project feasibility and rate impact calculations for a synchronous transmission intertie to New York State.
- » The Town(s) of Markham / Vaughn / Barrie – on behalf of the shareholders of PowerStream, completed a due diligence review of PowerStream’s proposed investment in solar generation under Ontario’s FIT contracts and the Green Energy Act.
- » Unwin vs Crothers - advised Plaintiff over a two year period as to the appropriate fair market value of power assets located in the Turk & Caicos Islands in the Caribbean. Appeared as an expert valuation witness in arbitration proceedings under the umbrella of the Ontario Superior Court of Justice
- » CMS Generation Company – strategic and advisory services to support development of response to Ontario Power Authority’s RFP for a generation facility in the western Greater Toronto Area. Developed a detailed operational and financial model for scenario analysis and RFP bid optimization.
- » FortisOntario – financial and analytic services in development of an RFP response to provide the electricity output of combined heat and power facilities to the Ontario electricity grid. Developed a detailed operational and financial model for scenario analysis and RFP bid optimization.
- » TransAlta – represented TransAlta in the financial settlement calculation of a power purchase contract recently signed with the Ontario Power Authority. Provided training to TransAlta staff on the financial aspects of the contract.
- » Ontario Power Authority (Early Movers Project) – Retained as an advisor to implement the June 15, 2005 Directive from the Minister of Energy to the OPA to negotiate and where feasible enter into contracts with the owners or operators (including CCGT, and co-generation plants) at a reasonable cost to Ontario consumers. Included analysis of hourly electricity prices (HOEP) and daily gas prices (Dawn) to evaluate the cost of the contracts to the rate payers.

- » AECON - evaluated the feasibility of constructing a tunnel (10 km) to provide additional conveyance capacity to the Sir Adam Beck hydro generation facility. This included a discounted cash flow financial model and a detailed probabilistic analysis of hydrology risk.
- » Kamchatsenergo (Kamchatka, Russia) - constructed an integrated financial projection and evaluation model for the largest regional electricity and district heat supplier, Kamchatsenergo. Analyzed various system generation and capital investment alternatives to identify the optimal (least cost) plan. Liaised with regional government and utility officials.
- » Feasibility of Power Generation Projects - completed numerous evaluations of hydro and thermal generation projects. Examples include:
  - Radar Limon 750 to 1,000 MW thermal (coal) plant, Colorado, USA,
  - Irvings - St. George 15-MW hydro project on the Magaguadavic River, St. George, New Brunswick.
  - LZ Group – generic financial model to evaluate small hydro and wind projects - incorporated the tax rates and incentive programs specific to projects located in Ontario.
- » Enbridge Gas Distribution - on behalf of the Enbridge and Nova Scotia Power partnership, acted as the key financial resource on the Nova Scotia gas distribution project (\$650 million). This included the development of a financial model, strategic issue identification, risk analysis, and senior management reporting.
- » Enbridge Gas Distribution – investigated the feasibility of capital projects, including distribution system expansion, storage, cogeneration, district heating and cooling, and municipal water distribution.

### *Cost Allocation*

- » Toronto Hydro Electric System Limited – completed a cost of service study investigation of cross-subsidy for suite-metered residential customers within the residential customer class.
- » Uttar Pradesh Power Corporation Limited (Uttar Pradesh, India Completed cost of service studies (for 2 rate cases) for the integrated transmission and distribution Company and prepared evidence as part of the Annual Revenue Requirement submission to the state regulator. Also conducted training workshops and seminars, as well as individual training to UPPCL staff on this subject.

- » Water and Power Development Authority (WAPDA), Pakistan Completed cost of service studies for the Lahore Electric Supply Company using both embedded and long-run marginal cost methodologies.

*Regulatory and Utility Policy*

- » IGPC Ethanol Inc. – intervened on behalf of IGPC in a rate application by Natural Resource Gas Limited to the OEB. Provided financial and analytical support in the cost of service and revenue requirement determinations, and the preparation of interrogatories and written argument.
- » Halton Hills Hydro Inc. - review of municipally-owned electricity distribution company with regard to ownership options, capital structure and financing. Completed valuations assuming “buy”, “hold” and “merge” strategies.
- » Town of Markham – advised on the assessment of its position as a significant shareholder of PowerStream in relation to its merger discussions with Barrie Hydro.
- » Ontario Energy Board - cross-jurisdictional survey of regulatory approaches to address the impact of stray voltage on farm operations.
- » Energy East (RGE & NYSEG) - researched regulatory precedents for approval of costs related to advanced metering which included a survey of US based gas and electric utilities (8 jurisdictions).
- » Electricity Company of Ghana (Ghana, West Africa) –identified alternatives and made a recommendation for a methodology to calculate a capital contribution as part of establishing a customer connection policy.
- » Enbridge Gas Distribution – business case analysis for gas automated meter reading (AMR). The analysis was completed from the perspective of the rate payer and included a revenue requirement and rate impact assessment.
- » Enbridge Gas Distribution - completed an independent valuation of an oil pipeline to be used as justification of a transfer price before the Ontario Energy Board. This study utilized the asset replacement cost valuation methodology.
- » Oshawa PUC Networks Inc. - conducted a study and made recommendations for a customer connection and capital contribution policy. The recommendations were designed to maximize shareholder returns while also ensuring the interests of new and existing customers, and the development community.
- » Peterborough Utilities - an asset replacement cost study was completed for Peterborough Utilities to determine an initial “fair market” value as required by Ontario Regulation 162/01. The valuation is the basis for calculating capital cost allowance and payments in lieu of taxes.

- » Enbridge Gas Distribution – completed rate of return schedules for ancillary programs including Natural Gas Vehicles (NGV) and the Heating Insurance & Parts (HIP).

*Electricity Price Forecasting*

- » Ontario Energy Board Regulated Price Plan - Forecast of electricity prices under the Regulated Price Plan based on gas price projections, terms of contracts between generators (OPG, Bruce Power, etc.) and the Ontario Power Authority, accumulated variance account, etc. This includes development of a short-term (18-month) electricity price forecast and determination of out of market supply costs (Global Adjustment), two-tiered rates, and time of use rates.

*Other Projects*

- » Enbridge Gas Distribution – investigated and presented an independent perspective on the existing and future role of natural gas in Ontario’s electricity supply mix.
- » Electricity Company of Ghana (Ghana, West Africa) - taught a 2-week course on engineering economics and finance to middle level managers.
- » Lake Superior Power – completed a due diligence review of the existing contractual arrangements as part of an independent engineers report for the acquisition of a cogeneration plant located in Sault Ste. Marie Ontario. Examined contracts for the purchase, transmission, distribution and re-sale of natural gas, and also the sale of electricity and steam.
- » Province of Alberta - investigated potential electricity price measures to reduce the cost of electricity for large industrial customers (sodium chlorate manufacturing industry) in Alberta. Initiatives included over-the-counter trading, ancillary services (virtual generation) and time-of-use metering.