

PAULA ZARNETT

Paula Zarnett has more than 25 years broadly based experience specializing in regulatory compliance, regulated tariffs and pricing issues for electricity and gas utilities. She has been responsible for design and implementation of a wide variety of innovative rates including time of use, both for large industrial and for residential customers, curtailment incentives, and special rates for retention of water heating loads. She has performed cost allocation studies for utilities serving customers with electricity, natural gas and steam, including a one-year, cross-functional study for a major electric distribution utility.

Following a series of rate specialist positions in both the electricity and natural gas sectors, she was promoted to the position of Manager of Marketing and Energy Management at Toronto Hydro. There, her responsibilities included all rate and regulatory issues, customer research including load research and forecasting, and customer program design with a focus on conservation and demand management.

In her consulting practice, Paula provides a variety of advisory and analytical services to clients facing the challenges of restructured energy markets, with a focus on issues impacted by regulatory policy and process. Her work includes business case and project feasibility analysis, cost allocations and pricing designs, energy sector mergers and acquisitions, and expert testimony before regulators. She is a skilled hands-on analyst and facilitator of cross-functional project teams. She was an instructor in Cost Allocation and Rate Design at CAMPUT's Energy Regulation Course, 2006, 2007 and 2008.

She has performed assignments for clients in North America, China, Ghana, and Barbados.

SELECTED EXPERIENCE BY SUBJECT AREA

(INCLUDES PROJECTS UNDERTAKEN AS A CONSULTANT, AND IN THE COURSE OF RESPONSIBILITIES WITHIN ORGANIZATIONS)

Rate Designs and Pricing Studies

IGPC Ethanol Inc. – supported the intervention of this industrial consumer in the rate application of its gas supplier, Natural Resource Gas

Rogers Cable and Communications Inc. – representation at Ontario Energy Board staff consultation process with regard to rate designs for Ontario's electric distribution utilities; development of policy and position documents, attendance at stakeholder meetings, analysis in support of positions on rate design for General Service classification and unmetered scattered loads; distribution cost allocation stakeholder process and 2006 distribution rate handbook.

Oklahoma Gas and Electric – review of results of residential time of use rate pilot including estimation of impact of the rate design on total customer consumption and peak hour consumption (load shifting).

Summerside Electric/City of Summerside – advisory and analysis service with regard to proposals of Maritime Electric for an Open Access Transmission Tariff.

Nova Scotia Department of Energy – advisory and analysis services to support intervention in Nova Scotia Power’s request to the regulator for approval of a fuel adjustment mechanism.

BC Hydro – assisted a staff team in development of a Phase I report on long-term rate strategy; research on rate designs in several North American jurisdictions.

Energy East (RGE and NYSEG) – analysis as to the potential value of load shifting which might take place as result of rate-driven (time of use or critical peak pricing) programs supported by universal interval metering in the State of New York; regulatory precedents as to cost recovery for advanced metering and meter reading technology

East China Grid Company – advice in developing and simulating an unbundled electricity distribution tariff for Shanghai Municipal and four provincial electric power companies

British Columbia Ministry of Energy and Mines – advisory and due diligence services with regard to recommendations by the British Columbia Utilities Commission for implementation of proposed Heritage Contract and stepped rates to wholesale and industrial customers.

Perth-Andover Electric Light Commission – long-term rate strategy and detailed bundled retail rate designs for all electricity consumer classifications.

Coral Energy – analysis, preparation of evidence and expert testimony to Ontario Energy Board supporting by-pass competitive basis for gas distribution pricing to an electricity generation plant

Toronto Hydro-Electric System – development of market-based transfer pricing proposal for services to the regulated distribution utility, from a proposed competitive business affiliate.

Volta River Authority (Ghana) – development of tariff structure and preliminary rates for open access use of the national electric transmission system in Ghana.

Enwave District Energy Limited – determination of appropriate customer classification and pricing design alternatives for a district steam system in a context of competitive electricity and gas markets and wider service choices for existing and potential customers.

Participated in committees and task forces of the Municipal Electric Association (of Ontario), an association representing 300 member utilities, with respect to wholesale and retail rates and regulatory policy issues; and made presentations at meetings and conferences on these subjects.

Toronto Hydro – development and initial implementation of time of use rates for residential and large industrial customers; development of pricing strategies and policies for all customer classes.

Toronto Hydro – development of all customer rate designs, implementation strategy, and preparation of annual submissions for approval of the rates. Managed a team of specialists in the preparation of associated detailed studies, load forecasts and load research.

ICG Utilities Ltd. – analysis in support of rate designs for natural gas distribution utilities in Manitoba and Alberta, and for propane distribution through pipes in British Columbia. Testimony in public hearings in British Columbia for regulatory approval of natural gas rates.

Testimony before Regulators

ORAL:

Saint John Energy – Testified before the New Brunswick Public Utilities Board in support of intervention in the Cost Allocation and Rate Design application of New Brunswick Power Distribution and Customer Service Corp.

ICG Utilities – coordinated preparation of applications, supporting materials, and other aspects of regulatory process for regional gas utility managements, as member of a head office specialist team; provided expert technical services in rate design, cost allocation, and working capital allowance determination; testified in three hearings before British Columbia regulator

Toronto Hydro – Testified before Ontario Energy Board on bulk power rate issues

Rogers Cable and Communication Inc. – Testified before Ontario Energy Board in support of consensus for treatment of certain unmetered electricity loads in the development of guidelines for electricity distribution rates.

WRITTEN ONLY:

Toronto Hydro-Electric System – cost allocation study to determine the fully allocated cost of service related to customer premises that are individually metered suites in multi-unit residential buildings (oral hearing to follow)

Kingston Hydro – study to review transfer pricing methodologies and allocation of shared costs for services provided by non-regulated affiliates.

FortisOntario – Three studies to allocate corporate and shared costs among regulated and non-regulated affiliates

EnWin Utilities – study to allocate corporate and shared costs among corporate affiliates

Ontario Power Authority – model development and analysis in support of evaluation of a potential generation, transmission and demand

response alternatives in York Region; report in support of generation alternative to the Ontario Energy Board.

City of Summerside – expert testimony in support of intervention in the application of Maritime Electric to the Island Regulatory and Appeals Commission for approval of an Open Access Transmission Tariff (public oral hearing to follow).

Cost Allocation and Load Research

Rogers Cable and Communications Inc. – represented a consumer stakeholder in a regulator-sponsored stakeholder process to determine a cost allocation methodology and analysis approach for information filings by all electric distribution utilities in Ontario.

FortisOntario – methodology review of allocation of shared costs to regulated and non-regulated business units and preparation of evidence for application to Ontario Energy Board for approval of 2006 electricity distribution rates

Perth-Andover Electric Light Commission – study to allocate the bundled costs of electricity service to customer classes and assess the impacts on cost allocation of changes to the wholesale rate structure.

Saint John Energy – two studies to allocate the bundled costs of electricity service to customer classes; one of these studies included analysis of metered system load profiles and publicly available typical customer profiles to develop demand allocation factors (third study including load research data now in progress).

Enwave District Energy Limited – study to allocate costs of service for a district steam system as a basis for pricing redesign; study included analysis of detailed time-related customer consumption data as a basis for allocation of costs, as well as operating and financial data.

Toronto Hydro – planning and execution of customer load research projects, including deployment of research metering, load data analysis and related customer research and surveys.

Toronto Hydro – coordination of first comprehensive cost of service study, a one-year cross-functional project, including in-depth data collection, selection of allocation methodologies and development of computer-based analytical tools. Led subsequent updates and refinements to the study.

ICG Utilities Ltd. – fully allocated cost of service studies for natural gas distribution systems in Manitoba and Alberta, including data analysis and development of computer-based analytical framework.

Ontario Electricity Projects

Enbridge Gas Distribution Inc. – review of role of natural gas in the Ontario electricity mix.

Ontario Power Authority – model development and analysis in support

of evaluation of a potential generation, transmission and demand response alternatives in York Region; report in support of generation alternative to the Ontario Energy Board; development of draft RFP and contract documents to procure demand response in York Region.

Hydro Ottawa Holdings Inc. – as part of a larger project to provide strategic advice on four business units, provided financial modeling for valuation of Energy Ottawa Generation.

FortisOntario – assistance in development of response to CHP Phase I procurement initiative by OPA

Ontario Power Authority – advisory services with respect to negotiation of Early Movers contracts

Toronto Hydro – manager responsible for design and implementation of conservation and demand management programs; portfolio included microwave cooking workshops, home and business energy audits; time of use rates; water heating load curtailment incentives; curtailment incentives for commercial buildings; net metering; light bulb and showerhead distribution; information programs for customers. Also cooperated in implementation of initiatives of others, including Better Buildings Partnership (City of Toronto); Green\$avers; various programs of Ontario Hydro.

Regulatory and Industry Policy

Saint John Energy – cross-jurisdictional review and assessment of regulatory regimes applicable to municipally-owned electric utilities in North America

Ontario Energy Board – cross-jurisdictional review and assessment of regulatory approaches to the issue of farm stray voltage across North-America

Ontario Energy Board – comparison of heritage contracts and similar arrangements in leading jurisdictions

Ontario Energy Board – identification of appropriate roles and responsibilities for the OEB under alternative industry and market structure scenarios, including default supply arrangements

Barbados Public Utilities Board – study to recommend procedures, rules and systems for oversight of the natural gas sector by a new regulatory agency.

Toronto Hydro – testimony in public hearings before the Ontario Energy Board on subjects of wholesale and retail rate policy and electricity market development; advised management in strategy related to regulatory compliance and industry regulatory issues.

Electricity Distributors Association -- analysis of cash flow patterns of electricity distribution utilities in Ontario reflecting customer payment patterns and market settlement requirements

Electricity Distributors Association – study to determine the financial benefit to municipalities of ownership of local distribution companies (LDCs).

National Grid Co. -- Assessment and overview report on regulatory framework and issues in Ontario.

Bruce Power – Assessment and overview on industry structure, generation and transmission capacity, pricing and issues in New Brunswick

CMS Energy – report on Ontario electricity industry structure, market, and regulatory environment, in support of decision to respond to RFP for new generation in the province

New Brunswick Municipal Electric Utilities Association – cross jurisdictional survey with respect to policy as to regulation of municipal utilities and rural cooperatives.

*Financial Analysis and
Spreadsheet Model Development*

Ontario Power Authority – model development and analysis in support of evaluation of a potential generation, transmission and demand response alternatives in York Region

CMS Energy – development of a comprehensive model of dispatch of a proposed combined cycle gas turbine generator to support a bid by the client in response to an RFP for clean energy projects and compute bid financial parameters. This model made use of historic electricity and natural gas pricing variables, capital cost and other financial parameters and complex decision logic to compute running hours and profitability under various scenarios. This model was subsequently refined and used by the OPA in its early movers negotiations, and by a generator client in verifying its payments under a contract with the OPA

Town of Markham -- Analyzing impacts on transmission rates that might result from undergrounding a component of transmission lines; capital cost and transmission rate data from public sources was utilized.

Hydro Ottawa Holdings Inc. – as part of a larger project to provide strategic advice on four business units, provided financial modeling for valuation of Energy Ottawa Generation.

Saint John Energy – development of a spreadsheet model for a fully allocated cost of service study for use by the client

Perth-Andover Electric Light – development of models to design and test alternative rate designs for all customer classes, including computation of bill impacts to individual customers and classes; development of a long term model to support a long term strategy of rate increase phase-in in response to expectation of a new wholesale power purchase agreement

Town of Markham – development of a model to evaluate profitability of solar generation projects under the FIT and/or microFIT pricing regime

Edmundston Energy – development of a long term financial forecasting and valuation spreadsheet to support an offer to purchase distribution territory from another utility

CAREER HISTORY

<i>2001 – Present</i>	BDR – consultant specializing in rate designs, cost and financial analysis, business planning and energy market restructuring issues.
<i>1998 – 2001</i>	In association with Acres Management Consulting – consultant specializing in rate designs, cost and financial analysis, business planning and energy market restructuring issues.
<i>1995 – 1998</i>	Toronto Hydro – Manager, Marketing and Energy Management
<i>1993 – 1995</i>	Toronto Hydro – Special Assistant to the General Manager (responsible for organizational performance improvement initiatives)
<i>1986 – 1992</i>	Toronto Hydro – Supervisor of Rates and Cost Analysis
<i>1984 – 1986</i>	Toronto Hydro – Senior Rate Analyst
<i>1981 – 1984</i>	ICG Utilities Ltd. – Coordinator, Rate Administration
<i>1979 – 1981</i>	H. Zinder & Associates Canada Ltd. , Senior Analyst

EDUCATIONAL AND PROFESSIONAL QUALIFICATIONS

<i>Degrees and Designations</i>	Society of Management Accountants of Manitoba, CMA University of Calgary, Masters of Business Administration (Finance) University of Toronto, Bachelor of Arts (Hon), Anthropology
<i>Professional Association</i>	Society of Management Accountants of Manitoba
<i>Continuing Professional Development</i>	Queens University School of Business, Marketing Program Queens University School of Business, Sales Management Program Society of Management Accountants of Canada—Customer Profitability Analysis Society of Management Accountants of Canada—Strategic Cost Management

PROFESSIONAL INVOLVEMENT

*Teaching and Training, Industry
Committees*

Instructor in Cost Allocation and Rate Design for Annual Energy Regulation Course, CAMPUT (Canadian Association of Members of Public Utility Tribunals) 2006, 2007, 2008.
Member and former Vice-Chair, Electricity Distributors Association Commercial Members Steering Committee (2007 to present)
Member – Ontario Energy Board Cost Allocation Working Group (2003 and 2005-6)
Member – Municipal Electric Association Cost of Service Sub-Committee (1986-1988)

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