



Ralph Zarumba
Director

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Professional Summary

Ralph Zarumba is a Director in the Energy Practice with 31 years of experience specializing in regulatory issues and economic analysis associated with energy utilities in North America, Europe and Asia. Mr. Zarumba has appeared as an expert witness in a number of regulatory and legal proceedings addressing electric generation, transmission and distribution issues, unregulated operations of utility holding companies, asset valuation and regulatory treatment of Smart Grid investments. He has assisted clients in other matters including Depreciation Studies, Transfer Pricing Mechanisms and evaluation of the results of competitive bidding for electric generation services.

These testimonies have been presented before the Nova Scotia Utility and Review Board, the Federal Energy Regulatory Commission ("FERC"), the Massachusetts Department of Public Utilities, the Rhode Island Public Utilities Commission, the Illinois Commerce Commission, the Wisconsin Public Service Commission, the Ontario Energy Board, the New York Public Service Commission, the New Mexico Public Regulation Commission, the Kansas Corporation Commission as well as a number of other venues.

Mr. Zarumba has provided a number of papers and presentations on various regulatory, pricing design, cost-of-service and market analysis issues.



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Recent Whitepapers

- » White Paper Prepared for the Ontario Energy Board on Approaches to Rate Mitigation for Transmitters and Distributors

http://www.ontarioenergyboard.ca/OEB/_Documents/EB-2010-0378/EB-2010-0378_Navigant_Report.pdf
- » White Paper Prepared for the Ontario Energy Board Cost addressing Distributor Efficiency

http://www.ontarioenergyboard.ca/OEB/_Documents/EB-2012-0397/Navigant_Report_Elect-Dist-Efficiency_20130225.pdf
- » White Paper Prepared for the Ontario Energy Board Cost addressing Cost Assessment Models for Regulators

http://www.rds.ontarioenergyboard.ca/webdrawer/webdrawer.dll/webdrawer/rec/319593/view/Cost%20Assessment%20Model%20Report_Jan%202013%202011_20120116pdf.PDF
- » Economic Issues Related to Tariff Development (with Thomas Welch)
<http://www.erranet.org/index.php?name=OE-eLibrary&file=download&id=6052&keret=N&showheader=N>

Recent Publications

- » Public Utilities Fortnightly "Pricing Social Benefits - Calculating and allocating costs for non-traditional utility services" Ralph Zarumba, Benjamin Grunfeld and Koby Bailey, August 2013
- » American Gas "Modernization: The Quest for 21st Century Utilities" Ralph Zarumba and Peter Haapaniemi, November 2012
- » Public Utilities Fortnightly "Pre-Funding to Mitigate Rate Shock" Sherman Elliot and Ralph Zarumba, September 2012

Professional Experience

Cost of Service

- » Provided testimony in the proceedings reviewing the 2014 Nova Scotia Power Cost-of-Service study (NSPI-P-892-/M05473).
- » Prepared and sponsored before the FERC a cost-of-service filing supporting a Reliability Must-Run filing on the Cayuga Operating Company.



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- » Managed a project team which completed a Remaining Life Study for the Western Minnesota Municipal Power Agency.
- » For a confidential client reviewed the cost-of-service application for a natural gas distributor in Central Canada.

Regulatory and Pricing

- » Assisted the Ontario Energy in formulating a regulatory process and pricing design for Revenue Decoupling.
- » Prepared a white paper on rate mitigation mechanisms for the Ontario Energy Board.
- » Prepared a white paper for the Ontario Energy Board on apportion of regulatory commission costs to various stakeholders.
- » Prepared a number of working capital studies for various distributors and transmitters in the Province of Ontario.
- » Prepare a functional cost separation study for a regulated electric utility in Ontario.
- » For a confidential client prepared a benchmarking analysis of the costs of regulatory proceedings associated with the introduction of new electric generation.
- » Prepared an analysis of the pricing of voluntary renewable energy products for a Midwestern public power association.
- » Led a team that prepared a cost of service, rate design, legal evaluation and financial analysis for the Puerto Rico Electric Power Authority.
- » Performed a Pricing Strategy for the South Carolina Public Service Company (Santee Cooper).
- » Prepared a financial plan, electric rate design and phase-in plan for a new electric generation plan for Fayetteville (North Carolina) Public Works Commission.
- » Assisted Commonwealth Edison Company in their Electric Rate Request (Illinois Commerce Commission Docket No. 10-467).
- » Prepared proposals for Retail Conjunctive Billing Pricing filed in Illinois and Wisconsin which were filed before the Illinois Commerce Commission and the Wisconsin Public Service Commission.
- » Developed the Wisconsin Electric Power Company's first Curtailable Electric Tariff available to commercial customers.
- » Negotiated complex service contracts with thermal energy customers which led to a major expansion of the Wisconsin Electric Steam System.



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- » Assisted Indianapolis Power & Light in preparing a cost recovery plan for Energy Efficiency and Demand Side Management Expenditures.
- » Trained regulatory staffs in the Republic of Macedonia, Bosnia and Herzegovina, Croatia and Albania.
- » Prepared proposals for ancillary services pricing based upon market-based mechanisms for San Diego Gas and Electric Company.
- » Completed the development of wholesale and retail rate designs for a southeastern G&T, an analysis of stranded cost exposure for a northeastern utility, and prepared a strategic plan for a large municipal utility.
- » Developed a proposal for electric generation transfer pricing that would be used as a transition mechanism between the existing vertically integrated utility and a deregulated environment.
- » Filed testimony in Wisconsin proposing that state's first Demand Response Program.

Demand Response

- » Assisted the Building Owners and Managers of Chicago (BOMA/Chicago) develop a program where they can bid demand response based ancillary services into the PJM market.
- » Prepared a presentation for the Public Utilities Commission of Ohio on Commercial and Industrial Dynamic Pricing and Demand Response in an unregulated regulatory environment.

Electric Transmission

- » Assisted the Long Island Power Authority to purchase distribution, transmission and regulatory assets and prepared its non-jurisdictional open-access transmission tariff.
- » Prepared the pricing portion of a FERC open access tariff (Docket No. ER96-96-43.000) for San Diego Gas and Electric Company; testified on revenue requirements and pricing including opportunity costs.

Generation Market Analysis

- » For a major public power generation owner prepared a strategy of internal coal versus natural gas generation dispatch protocols including the treatment of liquidated damages.
- » Co-authored a report for Nalcor on the feasibility and economics of the proposed development of the Lower Churchill Hydroelectric project.
- » Prepared a number of electric market price forecasts for many regions of the United States and Central America.



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- » Supported the electric pricing and infrastructure analysis for a Least-Cost Resource Plan for San Diego County.
- » Prepared an analysis of the saturation of coal-fired electric generation technology in the Western Electric Coordinating Council.
- » Developed a long-run electric expansion plan for the Railbelt System in Alaska.
- » Managed a team that prepared a long-term capacity and energy forecast for a medium-sized municipal utility.
- » For Manitowoc Public Utilities prepared a resource plan evaluating various generation expansion options.

Merger, Acquisition and Divestiture

- » On behalf of the Minnesota Public Service Commission. Mr. Zarumba co-authored an analysis of the merger savings associated with the proposed Primergy Merger (the proposed combination of Northern States Power and Wisconsin Energy). The analysis included a detailed review of cost savings that would emanate from the merger and regulatory commitments made by the companies to regulatory authorities in Minnesota.
- » The Ontario Energy Board desired to identify factors that potentially impede the combination of regulated distributors in that province. Mr. Zarumba co-authored a study which identified those factors and discussed policies in other jurisdictions.
- » For the Manitowoc Public Utilities prepared an analysis that evaluated the divestiture of its transmission assets to the American Transmission Company.

International

- » Currently assisting the Israel Public Utility Authority is electric tariff reviews for the Israel Electric Company and the Jerusalem District Electric Company.
- » Mr. Zarumba assisted the electric regulator in the Republic of Macedonia with various regulatory issues including pricing design, revenue requirements and privatization issues. Included in the assistance was the development of market designs for the electricity sector.
- » Completed a tariff implementation plan proposal for the privatization of the distribution companies of the Bulgarian Electric Utility.
- » Led a team to implement regulatory procedures and methodology for the electric power industry in Bosnia and Herzegovina.
- » Conducted a study of the electric power market in El Salvador including a quantification of the level of generation market power using the Lerner Index.



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Work History

Director, Navigant Consulting
Director, Science Applications International Corporation
President, Zarumba Consulting
Management Consultant, Sargent & Lundy Consulting Group
President, Analytical Support Network, Inc.
Manager, Pricing Practice, Synergic Resources Corporation
Senior Analyst – San Diego Gas & Electric Company
Senior Analyst – Wisconsin Electric Power Company
Analyst 4 – Eastern Utilities Associates
Analyst – Illinois Power Company

Education

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| MA, Economics | DePaul University, Chicago, IL |
| BS, Economics | Illinois State University, Normal, IL |