

PATRICK BOWMAN
Principal Consultant
Bowman Economic Consulting Inc.

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AREAS OF EXPERIENCE:

- Utility Regulation and Rates
- Project Development and Planning
- Utility Resource Planning

EDUCATION:

- MNRM (Master of Natural Resources Management), University of Manitoba, 1998
- Bachelor of Arts (Human Development and Outdoor Education), Prescott College (Arizona), 1994

PROFESSIONAL EXPERIENCE:

Bowman Economic Consulting Inc., Winnipeg, Manitoba

2020 – Principal Consultant

Conduct consulting assignments as Principal Consultant of new economic consulting firm, focused on utility regulation.

InterGroup Consultants Ltd., Winnipeg, Manitoba

1998 – 2020 – Research Analyst/Consultant/Principal/Senior Associate

Utility Regulation

Conducted research and analysis for regulatory and rate reviews of electric, gas and water utilities in eight Canadian provinces and territories and international. Prepared evidence and expert testimony for regulatory hearings. Assisted in utility capital and operations planning to assess impact on rates and long-term rate stability. Major clients included the following:

- **For Manitoba Industrial Power Users Group (1998 – 2020):** Prepare analysis and evidence for regulatory proceedings before Manitoba Public Utilities Board representing large industrial energy users. Appear before PUB as expert in General Rate Application and revenue requirement reviews, the Needs For and Alternatives To (NFAT) resource planning hearing, depreciation, cost of service, and rate design matters. Assist in regulatory analysis of the purchase of local gas distributor (Centra Gas) by Manitoba Hydro. Assist industrial power users with respect to assessing alternative rate structures, surplus energy rates and demand side management initiatives including curtailable rates and load displacement.
- **For Northwest Territories Power Corporation (2000 - 2020):** Provide technical analysis and support regarding General Rate Applications and related Public Utilities Board filings, major capital developments and utility acquisition and valuation topics. Assist in preparation of evidence and providing overall guidance to subject specialists in such topics as depreciation and return. Appear before PUB as expert in revenue requirement, cost of service and rate design matters, and on system planning reviews (Required Firm Capacity).
- **For Industrial Customers of Newfoundland and Labrador Hydro (2001 – 2020):** Prepare analysis and evidence for Newfoundland Hydro GRA hearings before Newfoundland Board of Commissioners of Public Utilities representing large industrial energy users. Provide advice on interventions in respect of major new transmission facilities, depreciation, rate mitigation for major new capital spending. Appear before PUB as expert in cost of service and rate design

matters.

- **For Nelson Hydro (2013 - 2020):** Development and updating of a Cost of Service model and filings before the BCUC.
- **For City of Chestermere (2015 – 2020):** Analysis of rate proposals from Chestermere Utilities Inc. and review of strategic options for utility.
- **For the Office of the Utilities Consumer Advocate of Alberta (2016 – 2020):** Provide expert witness and strategic support of multiple depreciation and revenue requirement proceedings. This includes ongoing participation in depreciation working group discussions on behalf of the UCA.
- **For the Association of Major Power Consumers of British Columbia (2015 – 2020):** Provide expert advice in the current 2020-2021 Revenue Requirement Application with a focus on general service large and transmission service customers. Provide consulting support regarding transmission service customer and rate design issues in the 2015 Rate Design Application.
- **Vancouver Airport Fuel Facilities Corporation (2019 – 2020):** Review pipeline tolling application on revenue requirement and depreciation, prepare interrogatories and draft issues for evidence.
- **Jamaica Public Service (2019):** Assist in preparation of regulatory documents, Executive Summary, review of strategic issues for General Rate Application.
- **For Hualapai Tribal Utility Authority (2017 - 2018):** Provided strategic advice to the HTUA Board, and completion of a feasibility study and Cost of Service analysis for the acquisition of assets and development of a tribally-owned distribution utility, including power purchase and transmission, asset purchase (acquisition value) and replacement costs, and ongoing operation and maintenance costs. The assignment included a review of comparable jurisdiction cost and rate structures, building a financial model with input cost variables, reporting and presenting in HTUA Board meetings.
- **For Yukon Energy Corporation (1998 - 2014):** Provided analysis and support of regulatory proceedings and normal regulatory filings before the Yukon Utilities Board. Appeared before YUB as expert on revenue requirement matters, depreciation, cost of service, rate design, and resource planning. Prepared analysis of major capital projects, financing mechanisms to reduce rate impacts on ratepayers. Analysis and support regarding utility asset transfer and system rationalization among various utilities.
- **For City of Swift Current (2013 - 2014):** Utility system valuation for acquisition and disposition alternatives assessment.
- **For Municipal Customers of City of Calgary Water Utility (2012 - 2017):** Analysis of proposed new development charges and reasonableness of water and wastewater rates (City of Chestermere, City of Airdrie, Town of Cochrane, and Town of Strathmore).
- **For Yukon Development Corporation (1998 - 2012):** Prepared analysis and submission on energy matters to Government. Participated in development of options for government rate subsidy programs. Assisted with review of debt purchase, potential First Nations investment in utility projects, and corporate governance.
- **For NorthWest Company Ltd. (2004 - 2006):** Reviewed rate and rider applications by Nunavut Power Corporation (Qulliq Energy). Provided analysis and submission to rate reviews before the Utility Rates Review Council.

Project Development, Socio-Economic Impact Assessment and Mitigation

Provide support in project development, local investment opportunities or socio-economic impact mitigation programs for energy projects, including northern Manitoba, Yukon, and NWT. Support to local communities in resolution of outstanding compensation claims related to hydro projects.

- **For Yukon Energy Corporation (2005 - 2014):** Participated in preparation of resource plans, including Yukon Energy's 20-Year Resource Plan Submission to the Yukon Utilities Board in 2005 (including providing expert testimony before the YUB), advisor on 2010 update. Project Manager for all planning phases of the Mayo B hydroelectric project (\$120 million project) including environmental assessment and licencing, preliminary project design, preparation of materials for Yukon Utilities Board hearing, joint YEC/First Nation working group on all technical matters related to project including fisheries, managing planning phase financing and budgets. Assistance in preparation of assessment documentation for Whitehorse LNG generation project.
- **For Northwest Territories Power Corporation (2010 - 2012):** Participated in planning stages of \$37 million dam replacement project; appear before Mackenzie Valley Land and Water Board (MVLWB) regarding environmental licence conditions; participate in contractor negotiations, economic assessments, and ongoing joint company/contractor project Management Committee. Provided economic and rate analysis of potential major transmission build-out to interconnect to southern jurisdictions.
- **For Northwest Territories Energy Corporation (2003 - 2005):** Provided analysis and support to joint company/local community working groups in development of business case and communication plans related to potential new major hydro and transmission projects.
- **For Kwadacha First Nation and Tsay Keh Dene (2002 - 2004):** Supported and analysed potential compensation claims related to past and ongoing impacts from major northern BC hydroelectric development. Reviewed options related to energy supply, including change in management contract for diesel facilities, potential interconnection to BC grid, or development of local hydro.
- **For Manitoba Hydro Power Major Projects Planning Department (1999 - 2002):** Initial review and analysis of socio-economic impacts of proposed new northern generation stations and associated transmission. Participation in joint working group with client and northern First Nation on project alternatives (such as location of project infrastructure).
- **For Manitoba Hydro Mitigation Department (1999 - 2002):** Provided analysis and process support to implementation of mitigation programs related to past northern generation projects, debris management program.
- **For International Joint Commission (1998):** Analysis of current floodplain management policies in the Red River basin, and assessment of the suitability of alternative floodplain management policies.
- **For Nelson River Sturgeon Co-Management Board (1998 and 2005):** An assessment of the performance of the Management Board over five years of operation and strategic planning for next five years.

Government of Northwest Territories, Yellowknife, Northwest Territories

1996 – 1998 Land Use Policy Analyst

Conducted research into protected area legislation in Canada and potential for application in the NWT. Primary focus was on balancing multiple use issues, particularly mining and mineral exploration, with principles and goals of protection.