INTERVENER APPLICATION FORM

Name of Prospective Intervener (Organization Name or Individual): Prospective Intervener Contact Information Organization or Individual Address:				
Prospective Intervener Contact Information				
Organization of individual Address.				
Organization Contact Demon(a) (if emplicable):				
Organization Contact Person(s) (if applicable):				
Contact Information: Business: Other Phone:				
Fax Number: Email:				
Representative Contact Information:				
Counsel or Representative Name(s):				
Organization (if different from above) :				
Address (if different from above):				
Contact Information (if Business: Other Phone:				
different from above):				
Fax Number: Email:				
Counsel Seniority:				
Years of Tariff Rate				
Experience Years \$				
Also representing (if applicable):				

Additional Information

(For organizations only) Please describe the mandate of your organization and provide a description of the membership, including the number of members. Please also confirm whether the organization's intervention in this proceeding is supported by a resolution of the governing body, if any. Please enclose the resolution, if any, with your Application, along with supporting documentation of your mandate and membership

Please state your reasons for intervening in this proceeding:

Please state how you are directly affected by the Board's decision in this matter:

Please explain whether and how you represent a substantial number of ratepayers that are otherwise not represented on issues that are within the scope of this proceeding:

Please describe your experience, information, or expertise relevant to this matter that would contribute to the Board's decision making, including any other prior interventions in regulatory matters before this Board or other decision-makers:

Please list the key issues you intend to address in the proceeding. Please be specific.

Do you intend to participate fully and actively, including attendance at hearings, submission of evidence, and testing of evidence and cross examination of witnesses? If yes, please describe your intended participation.

Do you intend to request an award of costs for your participation? Please explain how you meet the criteria for an award of costs.

Do you intend to retain experts or consultants? If yes, please attach copies of the *curriculum vitae* for any expert and/or consultant, as well as the following:

Expert Consultant #1.			
Name:	Experience	Evidence to be provided on issues in scope:	
	Years		
Telephone #:	Tariff Rate:	*	
	\$	•	
Address and Email:	Firm or Organization:	Brief explanation of experience relevant to evidence to be provided:	
byauch@poweradv isoryllc.com			

Expert Consultant #2:				
Name:	Experience:	Evidence to be provided on issues in scope:		
	Years			
Telephone #:	Tariff Rate:			
	\$			
Address and Email:	Firm or organization:	Brief explanation of experience relevant to evidence to be provided:		
Expert Consultant #3:				
Name:	Years of Experience:	Evidence to be provided on issues in scope:		
	Years			
Telephone #:	Tariff Rate:			
	\$			
Address and Email:	Firm or organization:	Brief explanation of experience relevant to evidence to be provided:		

Do you intend to provide evidence from witnesses other than experts and/or				
consultants? If yes, please provide:				
Witness #1:				
Name:	Evidence to be provided on issues in scope:			
Email:	Brief explanation of relevant experience			
	and/or knowledge to issues in scope:			
Address and Phone number:				
Do you intent to seek approval for any other form of participation or provision of				
evidence, including for which you intend to seek an award of costs? If yes, please				
provide details and an explanation of the relation to issues in scope in the proceeding.				

SCHEDULE A

Description of Membership & Mandate

The Assembly of Manitoba Chiefs (the "AMC") is the political and technical coordination organization for 62 of 63 First Nations in Manitoba, including Anishinaabe (Ojibway), Nehetho (Cree), Anishininew, Dene and Dakota Nations (the "member First Nations"). The member First Nations represent more than 151,000 First Nations citizens in the province, accounting for approximately 12% of the provincial population.

The AMC's member First Nations exercise inherent Aboriginal and Treaty rights over traditional territory, Treaty territory, and reserve lands. Member First Nations entered into Treaties with the Crown upon the arrival of the settlers. Member First Nations include adherents to Treaties 1, 2, 3, 4, 5, 6, 10 and the Dakota Nations that are party to a preconfederation Treaty.

The AMC is led by the Grand Chief, who is elected every three years and is governed by the Chiefs-in-Assembly, a regular gathering of the political representatives of each of the AMC's 62 member First Nations. In between assemblies of the Chiefs-in-Assembly, the Executive Council of Chiefs (the "ECC") functions as a source of authority for the AMC. The ECC is composed of the Grand Chief, 5 Chiefs selected by northern First Nations and 5 Chiefs selected by southern First Nations.

The Assembly of Manitoba Chiefs Secretariat Inc. (the "AMC Secretariat") is the administrative and logistical arm of the AMC, and is dedicated exclusively to the social, cultural, educational and economic development of First Nations people in Manitoba. The AMC Secretariat implements all decisions made by the Chiefs-in-Assembly and by the Executive Council of Chiefs. It is accountable to the Grand Chief and the ECC.

The AMC's mandate is, among other things, to advocate for the collective interests of First Nations in Manitoba while respecting the inherent self-determination and self-government rights of each First Nation.

The ECC passed a resolution on November 23, 2022, authorizing the AMC's participation as an intervener. The resolution states as follows: "Be it resolved that the ECC supports the AMC's participation at the PUB hearing related to Manitoba Hydro's General Rate Application 2023/24 and 2024/25, and be represented by Carly Fox."

Direct Effects of Board's Decision and Substantial Number of Ratepayers

All of the member First Nations and their citizens and institutions associated with and operated by each First Nation (including schools, health centres and corporations), and the AMC Secretariat, are Manitoba Hydro ratepayers and rely on Manitoba Hydro for their electrical power.

The AMC's member First Nations and their citizens and corporate entities include both residential and general service ratepayers. The AMC's member First Nations have unique jurisdictional and infrastructure considerations that differ from other electricity users in the province stemming, in part, from the inherent Aboriginal and Treaty rights of these First Nations, protected by the *Constitution Act, 1982*. This diverse array of interests gives the AMC unique insight regarding the reasonableness of Manitoba Hydro's rates.

The AMC's Experience, Information and Expertise Relevant to this Matter

The AMC has substantial expertise and information relative to this matter.

The AMC intervened in the 2021/22 Interim Rate Application, as well as the Consumer Coalition Application for an Order Requiring a Manitoba Hydro Hearing. The AMC previously intervened in the 2017/18 & 2018/19 General Rate Application, and the 2019/20 Electric Rate Application. The AMC also acted as an intervener before the Manitoba Court of Appeal in *Manitoba (Hydro-Electric Board) v Manitoba (Public Utilities Board)*, 2020 MBCA 50.

Reasons for Intervening

First Nations electric customers in Manitoba face disproportionate levels of energy poverty compared with other customers, particularly First Nations customers living onreserve. As a result, impacts of electricity rate increases are felt on a disproportionate level. This is especially true given the affordability crisis that has impacted consumers across Canada.

The AMC is concerned about the lengthy time period that has lapsed since a fulsome general rate hearing has occurred and long-term forecasting has been provided by Manitoba Hydro. It remains concerned that the lack of regulatory oversight due to limited scope hearings could negatively impact First Nations customers and has resulted in lost customer confidence that Manitoba Hydro rates will be reasonable and will adequately balance customer interests.

The AMC's member First Nations have an interest in ensuring that the rates paid by their citizens, both on and off-reserve, and rates paid by First Nations corporate and institutional accounts are just and reasonable.

Key Issues the AMC Intends to Address

The AMC will intervene on the issue of whether Manitoba Hydro's proposed approvals are just and reasonable, whether Manitoba Hydro has demonstrated a revenue requirement that justifies the requested increases, and appropriate rate design. The AMC will intervene with a focus on rate impacts, particularly the rate impacts for First Nations customers. The AMC will work with other interveners to ensure that its intervention is not duplicative.

The AMC intends to intervene in relation to the following approvals requested by Manitoba Hydro:

- 1. Final approval of the 3.6% rate increase effective January 1, 2022;
- Approval of a 3.5% average increase to electricity rates effective September 1, 2023; and
- 3. Approval of a 3.5% average increase to electricity rates effective April 1, 2024; and
- 4. Endorsement of changes to existing deferral accounts and establishment and amortization of new regulatory deferral accounts.

Participation

The AMC intends to participate fully and actively, including attending at hearings, testing evidence and cross-examining witnesses. The AMC is working with its retained experts

to determine whether it will submit evidence and will be able to speak to this further at the pre-hearing conference scheduled December 5, 2022.

Costs

The AMC intends to submit a request for costs pursuant to the Public Utility Board's intervener costs policy. The AMC anticipates that following the hearing it will have met all criteria of the Intervener Costs Policy for an award of costs.

Brady Yauch Senior Manager Markets and Regulatory



Power Advisory LLC 55 University Avenue Suite 700, PO Box 32 Toronto ON M5J 2H7 Tel: 416-822-6884 byauch@poweradvisoryIIc.com

SUMMARY

An electricity market analyst and economist with more than 11 years of experience in energy market analysis and regulatory affairs. Focuses on in-depth analysis of the competitiveness and economic efficiency of wholesale energy markets and regulated utilities. Has appeared many times before the Ontario Energy Board, as an expert witness in arbitration and drafted evidence in a number of regulatory proceedings.

Professional History

Market Assessment Unit (MAU) IESO Executive Director and Economist – Consumer Policy Institute (see below)

Education

York University, Masters Economics, 2012 University of Edinburgh, Masters, Cultural Politics, 2005

PROFESSIONAL EXPERIENCE

Market Competitiveness and Economic Efficiency

- Oversee Power Advisory's electricity price forecasts for Ontario providing many custom forecasts for energy facilities across the province and revenue forecasts after the expiration of PPAs for a number of market participants. Also oversees price forecasts for Alberta, NYISO, ISO-NE and numerous vertically integrated utilities.
- Provided expert evidence before the OEB regarding the province's Export Transmission Service tariff. The work included a detailed report and model highlighting the impact of increases to the ETS rate on total system costs in Ontario.
- Provided 20-year energy and capacity price forecasts for a publicly owned utility. The price forecasts included Ontario, NYISO, ISO-NE, New Brunswick and Nova Scotia.
- Provided a detailed review of the British Columbia electricity sector and potential for future contracting.
- Undertook a pricing analysis for different wind sites in Alberta. As part of the analysis, various wind power curves were created to provide a wind-weighted price for different assets.
- Provided a risk analysis for NYSERDA regarding index REC contracts and future DA-LMPs. The analysis was used to better understand the future price risk of REC-index contracts signed by the public agency. As part of the engagement, a statistical tool was created to determine future pricing risk.
- Provided due diligence regarding a transmission-connected energy storage facility in Ontario. The analysis included a detailed review of the contract structure and future LMP pricing in Ontario.

- Provided avoided cost analysis for a market participant in North and South Carolina.
- Provided analysis for a study done for the IESO on the potential for Distributed Energy Resources (DER) in Ontario. The report was released by the IESO to stakeholders, government officials and other interested parties.
- Provided expert evidence in the federal tax court regarding electricity analysis and cost allocation. As part of the evidence, also provided a rebuttal. The evidence provided a detailed review of physical and financial structure of Ontario's electricity grid.
- Provided expert evidence as part of a private arbitration regarding energy retailers in Ontario and the current design of the province's wholesale electricity market. As part of the evidence, I provided testimony before the arbitrator.
- Led the drafting and analysis for a report on the interaction between nuclear and pumped storage hydro in Ontario on behalf of the Nuclear Innovation Institute. The report was eventually released to the public and provided to policy makers.
- Created a dispatch model for New Brunswick and a 10-year marginal price forecast as part of a proposed wind facility.
- Modelled the impact of increasing rooftop solar penetration in Ontario on wholesale prices, capacity prices and transmission constraints.
- Led the modelling and drafting of a report on the future of gas-fired generation in Ontario for the Ontario Energy Association (OEA)
- Provided a ten-year model for integrating energy storage into Saskatchewan's energy grid.
- Modelled the impact of renewable capacity and transmission in NYISO.
- Oversaw the modelling for Ontario's move to Locational Marginal Prices (LMPs), Enhanced Unit Commitment and a Day-Ahead Market (DAM) for a consortium of gas-fired generators. Also modelled the financial impact to gas-fired generators as a result of the implementation of market design changes. Additionally, provided strategic advice on updated terms to contracts as a result of market design changes.
- Led a jurisdictional review of Pumped Generation Storage (PGS) facilities in the New York and New England wholesale markets. Reviewed market rules and dispatch efficiency of PGS facilities.
- Designed a settlement model for hydroelectric facilities in Ontario moving to LMPs.
- Designed a wholesale market model for Energy Storage Canada to determine the economic benefits of increased energy storage in Ontario. Led the drafting of subsequent report.
- Worked in the Market Assessment Unit (MAU) of the Independent Electricity System Operator, which undertook analysis for the Market Surveillance Panel (MSP).
 - As part of that work, provided an assessment on the economic efficiency of the offer behavior of hydroelectric plants in Ontario in response to a regulator-imposed incentive mechanism. Reviewed the efficiency of transmission rights payouts and recommended a market rule change.
 - Provided a detailed review of the competitiveness and economic efficiency of Ontario's wholesale market.
 - Reviewed a cost guarantee program for thermal generators and provided recommendations to improve its economic efficiency.
- Provided assistance in the MAU-led review of the Industrial Conservation Initiative in Ontario and contributed to the final report.
- Led the MAU's analysis and remarks regarding Ontario's Market Renewal Program (MRP).

- Provided public commentary on the IESO's Demand Response program and its effectiveness.
- Have provided multiple reports and opinion pieces on the economics of large-scale megaprojects across Canada.

Regulatory Affairs

- Led a detailed review of the OEB's Cost Allocation Model (CAM) on behalf of a large LDC in Ontario. The review quantified a potential change to the CAM and the impact it would have on various rate classes as part of the CAM.
- Drafted IRs and argument for an intervenor (Assembly of Manitoba Chiefs) in Manitoba Hydro's 2022 interim rate application. Provided strategic advice for all IRs, cross examination and argument.
- Drafted evidence on incentive regulation in Alberta for Enmax. The evidence included a detailed analysis on the impact of Performance Based Regulation (PBR) on the operation and investment decisions of distributors.
- Led the drafting of numerous chapters of a rate application by a LDC (Grimsby Power) before the OEB.
- Led a study for the Government of Northwest Territories on interruptible rates and incremental revenues for utilities. As part of the project, modelled NWT's electricity grid and the impact of incremental load through electrification investments.
- Led the drafting of a report for the Ontario Energy Association (OEA) on how programs could be designed to increase energy demand in Ontario and lower per unit costs.
- Designed a cost allocation model for an LNG plant in Northern Ontario.
- Participated in hearing regarding Enbridge Gas Distribution's proposed Renewable Natural Gas (RNG) Enabling Program and Geothermal Energy Service (GES) Program (EB-2017-0319). Led the drafting of interrogatories, cross examination and final argument.
- Participated in regulatory hearing to approve the merger of Enbridge Gas and Union Gas. Submitted evidence (jurisdictional review) in the proceeding (EB-2017-0306/07), as well as led the drafting of interrogatories, cross examination and final argument.
- Participated in a hearing in response to a motion from OPG to review its rate application decision (EB-2018-0085). Drafted the organization's submissions.
- Led an intervention in the proceeding for Hydro One's 2018 2022 distribution rates (EB-2017-0049).
- Drafted interrogatories and final argument for an intervenor in the OEB application by Union
- Gas for approval of its 2015 natural gas Demand Side Management (DSM) conservation programs (EB-2017-0323/0324).
- Participated as an intervenor and party to the settlement of Westario's application to the OEB to set its distribution rates in 2018 (EB-2017-0084)
- Participated in hearing for Hydro One Remote Communities 2018 revenue requirement and customer rates for the distribution and generation of electricity (EB-2017-0051). Led the settlement agreement and drafted all interrogatories for client.
- Drafted comments to the Ontario Energy Board modernization panel.
- Participated as an intervenor and party to the settlement of Union Gas' application for distribution, transmission and storage of natural gas rates (EB-2017-0087).
- Participated in a hearing to set Ontario Power Generation's 2017-2021 rates (EB-2016-0152).
- Drafted the final argument, interrogatories and led cross examination.

- Participated as in intervenor in the OEB hearing to set Hydro One's 2017-2018 transmission rates (EB-2016-0160). Drafted the final argument, interrogatories and led cross examination.
- Participated in hearing and settlement conference for the Independent Electricity System Operator's (IESO) 2017 fees application (EB-2017-0150)
- Participated in settlement conference for Enbridge's application to the OEB for the disposition of deferral and variance account balances (EB-2017-0102).
- Led intervention in the application from Five Nations Energy Inc. (FNEI) to the OEB to set its transmission rates for 2017-2020 (EB-2016-0231). Drafted the final argument, interrogatories and led cross examination.
- Participated in the community gas expansion hearing before the OEB (EB-2016-0004). Drafted the final argument, interrogatories and led cross examination.
- Participated in the hearing before the OEB regarding plans from Union and Enbridge to comply with the province's cap and trade program (EB-2016-0300).
- Participated as an intervenor and party to the settlement of Union Gas' application for distribution, transmission and storage of natural gas rates (EB-2016-0245).
- Participated in the hearing regarding Hydro One's application to the OEB to purchase Great Lakes Power Transmission (EB-2016-0050).
- Participated in the hearing and settlement conference in the IESO's application to the OEB to set its 2016 fees (EB-2015-0275).
- Participated in the hearing regarding Union and Enbridge's application for pre-approval of the cost consequences of a 15-year transportation contact (EB-2015-0166/EB-2015-0175). Drafted the final argument, interrogatories and led cross examination.
- Participated in the hearing to set Hydro One's 2015-2019 distribution rates (EB-2013-0416/EB-2015-0079). Transmission Facility Review and Pricing Proceeding Support

Expert Testimony

- Provided expert evidence before the Ontario Energy Board (OEB) on the impact of changing the Export Transmission Service (ETS) tariff. The evidence included a detailed report and model.
- Retained by the Justice Department to provide expert evidence on the design and structure of Ontario's electricity sector. The report was submitted to the court, as well as a rebuttal.
- Provided expert evidence as part of a private arbitration regarding energy retailers in Ontario and the current design of the province's wholesale electricity market. As part of the evidence, I provided testimony before the arbitrator.

Research and Publications

Academic

• Ontario's Electricity Market Woes: How Did We Get Here and Where are We Going, Energy Regulation Quarterly, July 2020

Op-eds

- Another megaproject pushing public utilities to the brink, *The Telegram*, September 30, 2017
- Government's mega utility projects spell mega-ruin, *Financial Post*, September 26, 2017
- Megaprojects like Site C bankrupt power utilities, Vancouver Sun, September 18, 2017
- Ontario's conservation program another corporate welfare handout, *Financial Post*, August 3, 2017

- Ontario's public power failure redux, *QP Briefing*, June 22, 2017
- How Queen's Park broke Ontario's provincial electricity sector, *Financial Post*, April 12, 2017
- Looking to lower Ontario power rates? Start with Pickering, where \$550 million will be wastefully spent, *Financial Post*, March 29, 2017
- No prizes for guessing who's really to blame for Hydro One's soaring rates, *Financial Post*, January 6, 2017
- This time is different: OPG says its megaproject not like the others, Toronto Star, October 11, 2016
- How Ontario's 1 per cent can do its share to reduce fuel poverty, *Financial Post*, August 16, 2016
- A new debt retirement charge for Ontario electricity customers, *Financial Post*, April 27, 2016
- Queen's Park the biggest winner with cap and trade, Hamilton Spectator, March 23, 2016
- Ontario electricity rates fastest rising in North America, Toronto Sun, March 2, 2016
- Queen's Park moves to silence dissent on electricity, *Toronto Star*, January 4, 2016
- Ratepayers on the hook for Hydro, Winnipeg Free Press, December 23, 2015
- The Hydro One sale's upsides, *Financial Post*, November 5, 2015
- Debt, subterfuge will cost B.C. Hydro ratepayers, *The Times Colonist*, October 24, 2015
- Privatization perks, *Financial Post*, September 22, 2015
- A \$2.6-billion stimulus for Ontario, *Financial Post*, August 12, 2015
- Much needed reforms could focus on Hydro One employees' pensions, Financial Post, April 24, 2015
- Achtung, Ontario! Renewables are a money pit, *Financial Post*, August 12, 2014
- While Canadians endured hardships during recent storms, customers in UK got compensated, *Financial Post*, January 7, 2014
- Why China's renewables industry is headed for collapse, *Financial Post*, December 10, 2013

Notable Media Appearances

- The Agenda,
- CBC, "On the Money"
- Many other TV and radio appearances, including BNN and CBC radio

Reports

- Multiple Monitoring reports by the Ontario Market Surveillance Panel
- How Megaprojects Bankrupt Public Utilities and Leave Regulators in the Dark, 2017
- Power Exports at What Cost? 2016
- Getting Zapped: Ontario's Electricity Prices Increasing Faster Than Anywhere Else, 2016
- Gone Too Far: Soaring Hydro Bills Offset Conservation and Hurt Conservers Most, 2015
- Falls Flat: Comparing the TTC's Fare Policy to Other Transit Agencies, 2015
- Corporate Welfare Goes Green in Ontario, 2014
- Toronto's Suburban Relief Line. 2014

Presentations

- Presentation to the Standing Committee on Natural Resources in the House of Commons
- Market Monitor conference Austin Texas, 2029, Reviewing Ontario's Industrial Conservation Initiative

• Presentation to Northwind conference, 2018, How megaprojects bankrupt utilities.

Work Experience

Senior Manager – Markets and Regulatory, Power Advisory, August 2022 – Present

Manager – Markets and Regulatory, Power Advisory, March 2020 – August 2022

- Collaborate on Power Advisory's market and regulatory work for clients across North American jurisdictions.
- Particular expertise on the interaction between rate regulation and wholesale markets.
- Lead on Power Advisory's custom electricity price forecasts for Ontario
- Provide detailed analysis and modelling for a range of market participants in Ontario and other wholesale markets

Senior Analyst – Markets Assessment and Compliance Division (MACD), the Independent Electricity System Operator, September 2018 – February 2020

- Senior Analyst with the Market Assessment Unit (MAU) within Market Assessment and Compliance Division (MACD).
- Oversaw research and investigations in Ontario's electricity market for the Market Surveillance Panel (MSP).
- Wrote and performed research for semi-annual monitoring reports published by the MSP.
- Provided analysis and research in public forums both internally to MACD and to external stakeholders.
- Gained an in-depth knowledge of both the Ontario wholesale electricity market and markets in other jurisdictions.

Economist and Executive Director – Consumer Policy Institute, July 2013 – September 2018

- Oversaw research activities for the Consumer Policy Institute.
- Was a consultant for regulatory hearings at the Ontario Energy Board (OEB), in which I reviewed and commented on evidence presented by public utilities. I have submitted multiple papers to the OEB on a range of topics, such as pension reform, revenue decoupling, natural gas expansion and distributor rate applications. I have cross examined many witnesses and executives regarding energy issues in Ontario.
- Have appeared numerous times on both television and radio to discuss energy and other economic topics. My research has been quoted extensively by experts, lawmakers and the media
- Write analysis reports and articles for media outlets. I have several recent opinion pieces published in national newspapers.
- Oversee the work of interns and other employees at Energy Probe Research Foundation.
- Online Reporter, Commentator and Editor Business New Network, December 2010 July 2013
- Wrote and edited all content published on BNN.ca, with a particular focus on economic issues.
- Attended lockups for budgets and interest rate announcements and published breaking stories.
- Notable articles include: "Canada's lost decade in manufacturing," "The rise and fall of
- Canadian exporters" and "More Fed action likely, but will it work?"
- Managed the outlet's website and came up with ideas for new columns and ways to present our content.
- Interviewed leading analysts, officials and other commentators on economic, political and business issues.

Researcher and Policy Consultant – Energy Probe Research Foundation, April 2009 – December 2010

- Performed economic, financial and political research on economic, policy and energy issues.
- In-house specialist on European carbon credit markets. I helped build and maintain the first, and only (at the time), online database of carbon credit projects. I was often called upon to explain the carbon credit market to reporters, other policy groups and policy makers.
- Engaged with policy makers through interviews and reports.

Freelance Writer/Reporter – January 2009 – Present

- Wrote articles for a variety of publications, including: *Washington Post, China Daily, BlogTO, Building.ca* and other trade magazines. Articles often provided commentary on major issues.
- Research involved searching through government databases, company reports, interviewing specialists and conducting other studies.

Producer, Writer – Brookshire Media, Toronto ON, January 2008 – December 2008

- Reported on and investigated financial markets -- including commodity markets, equity markets and currency markets.
- Wrote and edited articles on both financial markets and international politics.

Editor – Corp Tax, Chicago, IL, September 2006 to February 2007

- Wrote internal reports.
- Explained tax policies and forms to clients.

Christine Runge

Manager, Regulatory

Power Advisory LLC

435 4th Ave SW, Suite 380 Calgary, AB T2P 3A8 Tel: 403-613-7624 crunge@poweradvisoryllc.com



SUMMARY

Christine Runge joined Power Advisory in 2017. She has a depth of experience in regulatory proceedings and tariff applications.

She was involved with the recent Alberta bulk and regional transmission tariff application and previously provided expert evidence and testimony regarding the 2018 ISO tariff proceeding and the subsequent review and variance application. She also submitted expert evidence to Nova Scotia Power's 2022-2024 GRA and supported clients in rates proceedings in Manitoba and PEI.

She has significant experience working on distribution connected generation issues in Alberta, including the adjusted metering practice, a replacement for the substation fraction methodology, and multiple proceedings on DCG Credits, such as Fortis' Option M. She also supported DCG and energy storage clients through the 2021 bulk and regional tariff consultation, including performing analysis on the financial impact of each proposed rate design.

Christine has been involved in a number of regulatory proceedings on behalf of both distribution utility clients and DCG clients, including a distribution Phase II application, an application for use of a descending-clock auction in an RRO energy price setting plan, the proceeding to determine the definition of anomalies in PBR going-in rates, the distribution system inquiry, and multiple complaints against a DFO for non-compliance with its terms and conditions. She was also involved with the Commission's regulatory burden reduction initiative.

Christine was involved in the development of the capacity market through the two-year consultation with the AESO and throughout the proceeding before the Commission, including the preparation of evidence and rebuttal evidence.

Prior to joining Power Advisory, Christine worked for the Commission in the distribution rates department, where she was engaged in all aspects of the regulatory process. Some of the highlights of Christine's time at the Commission include analyzing the financial performance of utilities during the first generation of Performance Based Regulation to help assess the effectiveness of the PBR plans, taking responsibility for the capital aspect of the second generation of PBR that resulted in the innovative K-bar mechanism, key participant in the policy evaluation of the capacity market transition working with other government agencies, and building a cost allocation and rate design model to assess the bill impacts of the capacity market implementation.

Prior to the Commission, Christine worked for the Alberta Electric System Operator in the competitive process department, where she was involved in designing a competitive procurement process and using that process to bid out the Fort McMurray West transmission project. A similar process was later used for the Renewable Electricity Program.

Christine holds an M.A. in Economics and graduated from the University of Calgary. Her capstone project for graduate school studied the effect of wind generation on pool price in Alberta's electricity market.

Professional History

Power Advisory - July 2017 – present Alberta Utilities Commission – June 2014 – Jun 2017 Alberta Electric System Operator – February 2013 – June 2014; July 2012 – December 2012; May 2011 – August 2011 Suncor Energy - January 2013 – April 2013

Education

University of Calgary, MA Economics, 2014 University of Calgary, BA Honours Economics, 2013

PROFESSIONAL EXPERIENCE

Oral Testimony before Canadian Regulatory Commissions

• Alberta Utilities Commission, Proceeding 22942, 2018 ISO tariff, March 22, 2019.

Authored Expert Submissions to Canadian Regulatory Commissions

ISO and Distribution Tariff

- Nova Scotia Utility and Review Board, Matter M10431, Exhibit N-48, expert evidence regarding NSPI's proposed deferral account, riders, and earnings sharing mechanism, June 7, 2022
- Alberta Utilities Commission, Proceeding 27047, Exhibit 27047-X0045, expert evidence regarding the adjusted metering practice implementation, April 7, 2022.
- Alberta Utilities Commission, Proceeding 26660, Exhibit 26660-X0013, Attachment A, technical appendix to the Review and Variance of Decision 26090-D01-2021, forecast DCG Credits for BluEarth and Elemental, July 7, 2021.
- Alberta Utilities Commission, Proceeding 26090, Exhibit 26090-X0119, expert rebuttal evidence regarding the DCG Credit Module of Fortis' Phase II Distribution Tariff Application, January 27, 2021.
- Alberta Utilities Commission, Proceeding 26090, Exhibit 26090-X0051, expert evidence regarding the DCG Credit Module of Fortis' Phase II Distribution Tariff Application, December 14, 2020.
- Alberta Utilities Commission, Proceeding 25848, Exhibit 25848-X0074, expert rebuttal evidence responding to the AESO on the substation fraction methodology, September 29, 2020.
- Alberta Utilities Commission, Proceeding 25848, Exhibit 25848-X0047, expert evidence on the substation fraction methodology and adjusted metering practice, September 15, 2020.
- Alberta Utilities Commission, Proceeding 22942, Exhibit 22942-X0329, expert evidence on the implications of the 2018 ISO tariff to distribution connected generation, January 15, 2019.

Capacity Market

- Alberta Utilities Commission, Proceeding 23757, Exhibit 23757-X0509, rebuttal evidence regarding the capacity market rules, April 4, 2019.
- Alberta Utilities Commission, Proceeding 23757, Exhibit 23757-X0375, expert evidence regarding the capacity market rules, February 28, 2019.
- Alberta Utilities Commission, Proceeding 23757, Exhibit 23757-X0147, preliminary issue submission regarding the capacity market rules, November 2, 2018.

Client Representation at Stakeholder Consultations

- Represented a generator group in the Government of Alberta's Department of Energy consultation on amendments to the Transmission Regulation in Q2 of 2022.
- Developed an alternative to substation fractioning on behalf of the Distribution Connected Generation Consortium for the AESO consultation on Participant-Related Costs for DFOs (Substation Fraction) and DFO Cost Flow-Through. Presented and supported this alternative through the technical sessions. Q2-Q3 of 2020.
- Represented the DCG Consortium in the adjusted metering practice (AMP) implementation consultation session in Q4 of 2021.
- Developed positions and represented clients during the AESO capacity market consultation in 2017-2018.

Regulatory process

Alberta Utilities Commission

- Worked at the Commission for three years, assessing dozens of regulatory proceedings. Involved with all stages of the regulatory process and all sizes of proceedings.
- Prepared panel briefing documents, at the Commission, summarizing and assessing issues raised by parties. Regularly met with Commission members in examination of issues on the record and in development of findings.
- Drafted information requests, hearing questions, and decisions as Commission staff.

Power Advisory

- Expert witness in multiple Commission proceedings including preparation of evidence, response to IRs, and testimony before the Commission (specific filings and appearances listed above).
- Assisted BluEarth in the development of an application regarding a complaint against FortisAlberta for non-compliance with its terms and conditions related to the flow through of CCD allocations (Proceeding 25058).
- Assisted Elemental regarding its intervention in a Fortis Strathmore area interconnection issue (Proceeding 26510).

- Assisted a utility client with application preparation on rates files and continued to advise the client throughout the remaining process steps. This included work on a distribution Phase II application, an application for use of a descending-clock auction in an RRO energy price setting plan, the proceeding to determine the definition of anomalies in PBR going-in rates, and multiple compliance filings.
- Developed submissions for multiple regulatory burden consultations.
- Assisted with information responses and other submissions to the distribution system inquiry on behalf of a utility client.
- Assisted multiple intervener clients on tariff applications in Alberta, Manitoba, Nova Scotia, and PEI.

ISO tariff and distrbution tariffs

Power Advisory

- Participated in the consultation on the 2021 ISO tariff bulk and regional rates and is currently involved in the active proceeding on this tariff.
- Submitted expert evidence in the DCG Credit proceeding and subsequent review and variance application.
- Prepared expert evidence and provided testimony in front of the Commission on the 2018 ISO Tariff implications for distribution connected generators, focusing on the adjusted metering practice and the substation fraction methodology. Continued to represent distribution connected generator interests subsequent compliance filings and R&V applications.
- Involved in the development of a methodology to replace the existing substation fraction methodology for allocation of shared facilities costs to distribution connected generators. This included submitting an alternative proposal to both the AESO consultation and as expert evidence to the Commission proceeding.
- Involved in application drafting, the subsequent proceeding, and the compliance filing for a distribution phase II application.
- Supported ENMAX in its 2023 cost-of-service rebasing application for the next PBR term.
- Supported an intervener in Manitoba Hydro's 2021-2022 interim rate application.
- Supported an intervener in Maritime Electric's 2021 open access transmission tariff (OATT) schedule update in Prince Edward Island.
- Supported an intervener in Nova Scotia Power's 2022-2024 general rate application (GRA).

Alberta Utilities Commission

- Worked on the next generation PBR proceeding to design the framework of the 2018-2022 term, specifically leading the capital issue resulting in a decision to implement a K-bar capital mechanism. Currently working on the rebasing proceeding to determine the criteria for anomaly adjustments.
- Worked on a number of capital tracker files during the 2013-2017 PBR term and involved with all the annual PBR rate setting files across all the distribution utilities in Alberta.
- Worked on a number of rate setting files over three years while at the Commission, including PBR annual rate change applications, rider implementation files, and other annual true-up files. Became the department's specialist in assessing the potential for rate shock.

• Assisted in building a model to assess the impact on total rate class revenue and final rates of participants choosing to install micro-generation following the implementation of a new government policy that was pending at the time.

Analytics and modeling

- Built a robust model of capacity cost allocation, rate design, and typical bill impacts to assess the impact of various cost allocation structures proposed by the AESO in its capacity market design consultation.
- Built a long-term forecast model showing typical bill impacts for a number of Alberta rate classes from 2017 to 2030 under a number of carbon price scenarios.
- Built a model to assess PBR rates in Alberta during the first PBR term and determine if rates were lower than they would have been under a continuation of cost of service regulation.

Capacity market

- Involved in the AESO capacity market design phase from 2017 through 2019, *i.e.* the SAM working groups, the CMD working groups, and the industry consultation sessions on the draft rules. Worked to analyze all content as it was released, worked with clients to help them form an understanding of the issues and develop positions, worked with clients to write arguments for submission into the stakeholder process.
- Involved with all stages of the Commission proceeding on the capacity market rules until the close of record. Prepared evidence and rebuttal evidence.

Other

- Worked on the competitive procurement process at the AESO. Assisted in developing the process and involved in all stages of the Fort McMurray West transmission project procurement.
- Research on Demand Side Management and Carbon Capture and Storage included in the AESO 2012 Long-term Outlook.
- Master of Arts capstone project analyzing the effect of instantaneous wind generation on pool price in Alberta's electricity market.