



Chris Pulfer, P.Eng.

Experience Summary

Chris brings a collaborative approach to his work, leveraging client knowledge and resources to ensure sound, actionable results. He has spent his career working to identify opportunities for energy efficiency, characterize barriers, and implement solutions.

Chris has contributed to the successful completion of several major jurisdictional energy conservation and demand management studies, including key roles in energy conservation potential reviews in six provinces and territories. Through these assignments Chris has provided technical analysis, conservation potential modelling, model development and project management focused primarily on the commercial and institutional sectors.

Chris has also led or contributed to more than a dozen smaller scale market and prefeasibility studies focused on energy market characterization for efficient equipment, technical assessment of energy impact, and conservation & program potential.

Education & Qualifications

B.Eng. (Mechanical), B.Sc. (Ecology), Professional Engineer (Ontario)

Relevant Project Experience

Energy Efficiency Technology and Market Research

- Year 8 Building Energy Benchmarking: City of Edmonton (Nov. 2024 – ongoing)
 - Building Controls Program Design Support: FortisBC (Jun. 2024 – November 2024)
 - 2024 Conservation Potential Review: FortisBC & Fortis Energy Inc. (May 2024 – ongoing)
 - Resilience Technologies Market Study: Canadian Mortgage and Housing Corporation (May 2024 – Oct. 2024)
 - Measure Library Maintenance: FortisBC (Mar. 2024 – ongoing)
 - Deep Retrofit Market Validation: City of Windsor (Mar. 2024 – June 2024)
 - 2025 Long-Term Gas Resource Plan (LTGRP) and Long-Term Electric Resource Plan (LTERP): FortisBC (FBC and FEI) (Mar. 2024 – ongoing)
 - CANMET Residential DER Cost Benefit Analysis and Impact Forecasting: CANMET Energy (Mar. 2024 – Mar. 2025)
 - Integrated Gas and Electric Heating System Study: FortisBC (Mar. 2024 – Apr. 2025)
 - Grid Integration for Medium and Heavy Duty Vehicles (MHDEV): Transport Canada (Jan. 2024 – Aug. 2024)
 - Deep Retrofit Study: Natural Resources Canada (NRCan) (Jan. 2024 – Jun. 2024)
 - Ontario Insulation Market Study: Enbridge Gas Inc. (Dec. 2023 – Apr. 2024)
 - Zero-Emission Freight Strategy (Part 1): New Brunswick Power (Nov. 2023 – ongoing)
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- Newfoundland Energy Solutions Potential Study: Newfoundland Power Inc. (Nov. 2023 – ongoing)
 - Technical Reference Manual (TRM) Jurisdictional Review: Enbridge Gas Inc. (Nov. 2023 – Apr. 2024)
 - Data Development: Building Decarbonization Alliance (May 2023 – January 2024)
 - Measure Library Development and Maintenance: FortisBC (May 2023 – March 2024)
 - Fireplace Controls Prefeasibility Study: FortisBC (Mar. 2023 – Jul. 2023)
 - Industrial EE Meta-study: NRCan (Feb. 2023 – ongoing)
 - Cost and Impacts of Modelled Energy Savings Phase I & II: CMHC (Feb. 2023 – Nov. 2023)
 - SCIEU Review – NRCan (Feb. 2023 – June 2023)
 - Market Engagement Strategy – Mid-Rise MURBS: NRCan (Dec. 2022 – Jun. 2023)
 - Interrogatory Support: Pacific Northern Gas (November 2022 – December 2022)
 - Climate Change Planning Impacts: IESO (Sep. 2022 – May 2023)
 - Building Energy Benchmarking Program Year 6: City of Edmonton (Sep. 2022 – June 2023)
 - EV and Mining Market Studies: IESO (Sep. 2022 – May 2023)
 - Virtual Energy Audit Software Market Scan: BC Hydro (Sep. 2022 – Feb. 2023)
 - Potential Study Meta-Analysis: NRCan (Aug. 2022 – Oct. 2022)
 - Commercial Market and Potential Studies: Enbridge (Jun. 2022 – Oct. 2022)
 - Long Term Resource Planning Support and Navigator Implementation: Southern California Gas Company (Apr. 2022 – Dec. 2023)
 - Prefeasibility Study: Integrated and Connected Homes: FortisBC (Apr. 2021-Jul. 2021)
 - Multifamily and Single-Family Natural Gas Deep Retrofits Prefeasibility Study: FortisBC (Sep. 2020-Dec. 2020)
 - Prefeasibility Study and M&V Best Practices: Gas Heat Pumps and Dual-Fuel Heat Pumps: ConEdison via CEATI International Inc. (May 2020-Dec. 2020)
 - Prefeasibility Study: Residential Water Heater Controls: FortisBC (Apr. 2020-Aug. 2020)
 - Fenestration Market Study Cost Benefit Support: Natural Resources Canada (NRCan) (Apr. 2019-Jun. 2019)
 - High-Efficiency Buildings: Case Studies: NRCan Office of Energy Research and Development (Feb. 2019-Jul. 2019)
 - Assessment and Development of Fireplace Program Savings Assumptions: FortisBC (Jul. 2018-Feb. 2019)
 - Prefeasibility Study: Connected Home Technologies: FortisBC (Feb. 2018-Aug. 2018)
 - ENERGY STAR Skylight Market and Options Analysis: NRCan (May 2018-Jul. 2018)
 - Prefeasibility Study: Residential Micro Combined Heat and Power Technologies: FortisBC (Mar. 2018-Nov. 2018)
 - Market Study and Participant Forecast for Fenestration and Insulation Measures: Independent Electricity System Operator (Sep. 2017-Oct. 2017)
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- Solar Thermal Market Scan: Independent Electricity System Operator (Nov. 2017-Dec. 2017)
 - Analysis of Fenestration Products in Support of Canadian Market Transformation Activities: NRCan (Jul. 2017-Jun. 2018)
 - Development of Emerging Technologies Profiles: Energy Solutions Center (Jul. 2017-Nov. 2017)
 - Gas Heat Pump Prefeasibility Study: CEATI International (Jul. 2016-Jun. 2017)
 - Residential HVAC Zone Control Prefeasibility Study: CEATI International (Feb. 2016-Feb. 2017)
 - Greenhouse Construction Industry Standard Practice Study: Enbridge Gas Inc. (formerly Union Gas) (Aug. 2016-Jun. 2017)
 - Indirect-Fired Domestic Hot Water Heater Technology Study: Enbridge Gas Inc. (formerly Union Gas) (Feb. 2016-May 2017)
 - Conservation Fund Investment Strategies: Independent Electricity System Operator (Jan. 2016-May 2016)
 - RETScreen Expert Measure Costing: Natural Resources Canada (Oct. 2015-Jan. 2016)
 - High Efficiency Natural Gas Laundry Dryers Pre-feasibility Study: FortisBC (Jun. 2014-Dec. 2014)
 - Combination Units Pre-feasibility Study: FortisBC (Dec. 2013-May 2014)
 - Energy Saving Potential Using Occupancy Based Controls: CEATI International (Dec. 2011-Jun. 2012)
 - Characterization of the Solid-State Lighting Industry in Canada: Natural Resources Canada Office of Energy Efficiency (Jan. 2012-Aug. 2012)
 - High Efficiency Commercial Washing Machine Potential Study: Union Gas (Aug. 2010-Aug. 2011)

Energy Efficiency Program Design, Administration and Support

- Custom Efficiency Program (CEP) Update: FortisBC (Nov. 2023-ongoing)
 - Achievable Potential Study (Ad Hoc) Support: Enbridge Gas (September 2023 - ongoing)
 - Resource Plan and Long-Term DSM Plan: Pacific Northern Gas (Feb. 2023 – ongoing)
 - Assessment of Additional Energy Savings from DSM Measures: FortisBC (Jun. 2021-Sep. 2021)
 - Residential Prescriptive Program Research: Enbridge Gas Inc. (May 2021-Nov. 2021)
 - Community Buildings Retrofit Program Support: Federation of Canadian Municipalities (FCM) (Mar. 2021-May 2021)
 - Sustainable Affordable Housing Innovation Program Development: Federation of Canadian Municipalities (FCM) (Oct. 2019-Mar. 2020)
 - District Energy System GHG Accounting and Reporting: Public Services and Procurement Canada (Sep. 2019-Mar. 2020)
 - Housing Technology and Assessment Platform (HTAP) Development and Training: Nova Scotia Department of Energy and Mines (Mar. 2019-Sep. 2019)
 - Development of GHG Inventory and Lifecycle Analysis Tools – Canadian Mortgage and Housing Corporation (Phase 1: Nov. 2018-Mar. 2019, Phase 2: Jun. 2019-Oct. 2019)
 - Commercial and Industrial Prescriptive Measure Development: FortisBC (Oct. 2018-Mar. 2019)
 - FortisBC Ad-Hoc Measure Update: FortisBC (Nov. 2018-May 2019)
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- Development of Prescriptive Incentives – Commercial New Construction Non-Lighting; Industrial Gas Retrofit: FortisBC Energy and FortisBC Inc. (Apr. 2017-Nov. 2017)
 - Development of Prescriptive New Construction & Retrofit Lighting Incentives: FortisBC Electric (Feb. 2017-Apr. 2017)
 - HPNC Program Refinements: Independent Electricity Service Operator (May 2015-Jun. 2015, Sep. 2016-Oct. 2016, Feb. 2017-Sep. 2017)
 - Upstream Program Development Support: Enbridge Gas Distribution (Jun. 2016-Jan. 2017)
 - Upstream Commercial Program Design: Independent Electricity System Operator (Sep. 2015-Feb. 2016)
 - Commercial Sector DSM Program Design: Yukon Energy / Yukon Electrical Company (Jan. 2012-May 2012)
 - Design of an Energy Efficiency Lending Program: Confidential Client (Jun. 2012-Sep. 2012)
 - Commercial Sector DSM Program Design: SaskPower (Jul. 2011-Feb. 2012)
 - Energy Retrofit Incentive Program: Various Ontario Electricity Local Distribution Companies (Sep. 2010-Feb. 2011)
 - High Performance New Construction Program: Enbridge Gas Distribution (Sep. 2010-Feb. 2011)

Strategic Planning for Energy Management

- Review of Building Energy Mapping Applications: Natural Resources Canada Buildings and Renewables, CanmetENERGY Ottawa (Feb. 2021-Apr. 2021)
- DSM Planning Support: Enbridge Gas Inc. (Jan. 2021-Jan. 2022)
- Comparative Evaluation of Spatial Building Stock and Energy Models: Natural Resources Canada Buildings and Renewables, CanmetENERGY Ottawa (Nov. 2019-Jan. 2020)
- Analysis of Funding Programs to Support Market Transformation: Natural Resources Canada (NRCan) (Jun. 2019-Sep. 2019)
- High-Efficiency Buildings: Case Studies: NRCan Office of Energy Research and Development (Feb. 2019-Jun. 2019)
- Natural Gas Demand Scenarios: FortisBC (Jul. 2017-Dec. 2017)
- Long Term Resource Plan Model and Forecast: FortisBC (Oct. 2016-Jun. 2017)
- Study of Federal Programming Strategies to Achieve Energy Savings: Natural Resources Canada (Dec. 2016-Jul. 2017)
- Energy & GHG Management and Planning Services: Various Ontario Municipalities & Communities (Dec. 2012-Present)
- Development of Major Energy Retrofit Guidelines (II): Natural Resources Canada (May 2015-Mar. 2016)
- Development of Major Energy Retrofit Guidelines (I): Natural Resources Canada (Feb. 2014-Mar. 2015)
- Development of an Energy Management Best Practices Guide: Natural Resources Canada (Jan. 2013-Jul. 2013)

Energy Efficiency and GHG Mitigation Potential Assessment





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- Conservation Potential Study: Pacific Northern Gas (Aug. 2021-Nov. 2021)
 - 2022 Long Term Gas Resource Plan Demand Forecast and Resource Planning: FortisBC Energy Inc. (Feb. 2020-Jul.)
 - 2021 Conservation Potential Review FortisBC Energy Inc (Dec. 2019-Ongoing)
 - Energy Management Best Practices for Cannabis Greenhouses and Warehouses: CEATI International Inc. (Nov. 2019-May 2020)
 - Resource and DSM Planning: Enbridge Gas (Jul. 2019-Oct. 2019)
 - Review of Natural Gas Achievable Potential Study Scenarios: Ontario Energy Board (Apr. 2019-Aug. 2019)
 - Market Characterization and Conservation Potential for Ontario's Drinking Water and Waste Water Treatment Plants: Independent Electricity System Operator (May 2018-Dec. 2018)
 - Market Characterization and Conservation Potential for Ontario First Nation Communities' Drinking Water and Waste Water Treatment Plants: Independent Electricity System Operator (Aug. 2018-Jan. 2019)
 - Low Carbon Heating Options for Ontario: Ontario Ministry of the Environment and Climate Change (Nov. 2017-Jun. 2018)
 - Demand Response Potential Assessment: Hydro Ottawa (Dec. 2011-Mar. 2012, with ICF Marbek)
 - Electricity Conservation Potential Review: SaskPower (Mar. 2010-May 2011)
 - Conservation Potential Review: Yukon Energy Corporation/ Yukon Electrical Company Ltd. / Yukon Government (Mar. 2011-Jan. 2012)
 - Conservation Potential Review: FortisBC (May 2010-Mar. 2011)
 - Conservation Potential Review and 20 Year Load Forecast: Ontario Power Authority (Sep. 2009-Apr. 2010)
 - 2009 New Brunswick Integrated Resource Plan: NB Power (Apr. 2009-Nov. 2009)
 - Natural Gas Energy Efficiency Potential: Union Gas and Enbridge Gas Distribution (May 2008-Mar. 2009)
 - Conservation and Demand Management Potential Newfoundland and Labrador: Newfoundland & Labrador Hydro and Newfoundland Power (May 2007-Apr. 2008)
 - Conservation Potential Review Update: BC Hydro (Mar. 2007- Nov. 2007)

Transportation Energy Efficiency Technology and Market Research

- Environmental and Health Impacts of Small Gasoline Powered versus Electric Powered Mobile Outdoor Equipment in Canada: Environment and Climate Change Canada (Feb. 2021-May 2021)
 - Survey of Fuel-saving Measures in Heavy-Duty Vehicles: Transport Canada (Dec. 2017-Mar. 2018)
 - Study to Assess the Level of Usage of EnerGuide Label for Vehicles and the Accuracy of Label Values: Natural Resources Canada - Office of Energy Efficiency (Dec. 2012-Mar. 2013; Oct. 2014-Mar. 2015; Jan. 2016-Mar. 2016; Sep. 2016-Feb. 2017)
 - Vehicle Technology, Transportation Energy-use and Electric Vehicle Information Scan for ecoENERGY Efficiency for Vehicles: Natural Resources Canada (Feb. 2016-May 2016)
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Regulatory Experience

- G-215-24 2024 Consolidated Resource Plan: Pacific Northern Gas
 - EB-2021-0002 - Multi-Year Natural Gas DSM Plan: Enbridge Gas Inc.
 - G-371-22 - 2023- 2027 Demand-Side Management Expenditures Plan: Fortis BC Inc. (Electric)
 - G-34-23 - 2023 Demand-Side Management Expenditures Plan: FortisBC Energy Inc.
 - G-17-23 - 2022 Long-Term Gas Resource Plan: FortisBC Energy Inc.
 - 2017 Long-Term Gas Resource Plan: FortisBC Energy Inc.
 - F-30-23 - 2023-2024 Energy Conservation and Innovation Portfolio Funding: Pacific Northern Gas
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