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January 13, 2023

DELIVERED BY EMAIL & RESS

Ms. Nancy Marconi, Registrar
Ontario Energy Board
PO Box 2319
26th Floor, 2300 Yonge Street
Toronto, ON M4P 1E4

Dear Ms. Marconi:

**Re: Elexicon Energy Inc. (“Elexicon”)
Application for 2023 Distribution Rates and Incremental Capital funding
 (“Application”)
Ontario Energy Board (“OEB”) File Number: EB-2022-0024**

Further to our filing of December 15, 2022, please find attached the CVs for all those individuals who are part of the Elexicon Witness Panel for the Technical Conference which is scheduled for January 18, 2023.

An electronic copy of this letter has been submitted using the Board’s Regulatory Electronic Submission System.

Yours truly,

BORDEN LADNER GERVAIS LLP

A handwritten signature in black ink, appearing to read 'Colm Boyle', is written over a light blue horizontal line.

Colm Boyle

cc. EB-2022-0024 Parties

CYNTHIA CHAN, CPA, CA

WORK EXPERIENCE

Elexicon Energy, Ajax, Canada

Chief Financial Officer

Jun 2022 – Present

- Collaborate with the Senior Leadership team to develop cost budgets for all operational aspects of the organization; manage project budgets, forecasts, and long-term strategic plans
- Responsible for all accounting and financial information for stakeholders as required including preparation of financial statements under GAAP and IFRS
- Identify, implement, and report key metrics that drive performance and decision making, and using those metrics to provide strategic decision support to the organization by identifying opportunities for improved financial and business performance
- Responsible for all tax compliance, audit, and financial risk management activities
- Develop and implement short and long-term financial plans and forecasts in accordance with business goals and objectives, etc.

Toronto Hydro, Toronto, Canada

Director, Corporate Accounting & External Reporting

Sep 2018 – Jun 2022

Capital Projects Supervisor

Nov 2017 – Aug 2018

Finance Management Reporting Supervisor (Financial Planning & Analysis)

Mar 2016 – Nov 2016

Capital Services Supervisor

Sep 2014 – Feb 2016

- Oversees corporate and technical accounting matters (IFRS and MIFRS), external financial reporting including quarterly reporting to the Ontario Securities Commission, shareholder reporting (City of Toronto) and regulatory financial reporting to the Ontario Energy Board (OEB)
- Represented the company as a witness at the technical conference and hearing, before the OEB, to support and defend the evidence relating to the 2020-2024 Customer Incentive Rate Application and worked collaboratively with the regulatory team in drafting evidence, responses to interrogatories and undertakings

Unison Health and Community Services, Toronto, Canada

Director of Finance

July 2012 – Aug 2014

Médecins Sans Frontières (Doctors Without Borders), Kinshasa, Democratic Republic of the Congo

Finance Coordinator

Mar 2011 – Jan 2012

KPMG China, Hong Kong, China

Professional Practice – Audit Methodology and Training Manager

Jul 2007 – Sep 2010

Audit Manager

Oct 2006 – Jul 2007

KPMG Canada, Toronto, Canada

Senior Accountant

Oct 2002 – Oct 2006

EDUCATION

Chartered Professional Accountants of Ontario, Toronto, Canada

Sep 2000 – Present

- Obtained Chartered Accountant designation in January 2006 (with the formerly, Institute of Chartered Accountants of Ontario)

McMaster University, Hamilton, Canada

Sep 1998 – Apr 2002

- Honours Bachelor of Commerce with Dean's Honours Standing

HOCINE BOUDHAR
(Engineer in training)

EMPLOYMENT EXPERIENCE

ELEXICON ENERGY

April 2016 – Present

Lead Asset Management & Planning Technician

System Planning

- Supervise a team of technicians and distribution engineers to plan, design and execute Capital Expenditure (CapEx) projects, including customer driven projects.
- Manage projects from initial request, planning, design and engineering phase, construction and energization stage ensuring safety, timelines, cost, and quality targets achieved.
- Ensure construction standards and procedures are followed to comply with Elexicon Standards, Regulatory requirements, ESA, Municipal Consent Requirements, etc.
- Perform load forecasts based on historical data and system growth.
- Review and approve system schematics driven by new requirements, expansion, and relocation projects.
- Review, analyze and make recommendations with respect to internal and external requests for the connection to Elexicon's distribution system.
- Perform loading analysis for new customer connections including subdivisions, commercial and industrial customers.
- Size transformers and fuses based on customer loading information.
- Prepare routine and special load studies, and plan for system enhancement or development requirements to reflect main feeder, substation, and supply point adequacy.

Asset Management

- Participate in gathering, developing, and maintaining key asset condition information used in the capital planning process.
- Review and update ongoing maintenance program and data collection requirements.
- Complete detailed analyses of Elexicon's Asset Condition Assessment studies with information gathered from regular maintenance activities and inspections.
- Prepare and incorporate a system renewal and system service plan following OEB guidelines.
- Manage Elexicon's capital expenditure program by allocating appropriate funds to the different investment categories and their programs (Poles, Transformers, Switchgears, LISs, Insulators...etc.).
- Manage maintenance activities through ongoing administration and monitoring of activities, progress, costs, and billing completed by both company staff and outside contractors.

Capital expenditure Projects & Budgeting

Substation design & Engineering

EDUCATION

Bachelor's degree, Power & Energy Engineering Technology (Co-op)
McMaster University

June 2021

Business Management Certificate
McMaster University

June 2021

Technologist Diploma, Energy System Engineering Technology (Co-op)
Centennial College

April 2014

INGRID ELEOSIDA, P.Eng. PMP

PROFESSIONAL EXPERIENCE

Elexicon Energy Inc. | *Manager, OT & Innovation* | 2022 – Present

- Operations Technology Systems
 - Manage OT software systems and servers in the IT-managed environment, such as the Geographic Information System, the Mobile Workforce Management System, Outage Communications Systems and other such operational systems, etc.
- Enterprise Architecture
 - Work across business to develop and maintain the enterprise technology plan, etc.
- Data & Analytics
 - Build and lead a team of data analytics group, etc.
- Management
 - Manage and build out a team of highly motivated, creative and skilled team that includes a diverse skill sets such as database administration, programming/development, data engineering, GIS data modelling and analysis, and sciences and SCADA networking, field device communications, etc.
- Innovation, Modernization and Organizational Effectiveness
 - Lead the organization in preparing and executing its digital transformation strategy, etc.

Toronto Hydro Electric Systems Limited | *Director, Customer Systems* | 2021 – 2022

Toronto Hydro Electric Systems Limited | *Manager, Grid Systems and Analytics* | 2018 - 2021

Toronto Hydro Electric Systems Limited | *Supervisor, Engineering & Construction Policy* | 2015 – 2018

Toronto Hydro Electric Systems Limited | *Engineer, External Demand Planning and Coordination* | 2014

Toronto Hydro Electric Systems Limited | *Engineer, Standards and Materials* | 2011 – 2014

Manitoba Telecom Services Allstream Inc. | *Lead Technical Specialist, Service & Solutions Development* | 2010 - 2011

Manitoba Telecom Services Allstream Inc. | *Program Manager, Service & Solutions Development* | 2009 – 2011

Manitoba Telecom Services Allstream Inc. | *Process Lead, Scientific Research & Experimental Development* | 2008-2009

Manitoba Telecom Services Allstream Inc. | *Technical Specialist, Operation Support Systems Development* | 2007-2008

Aversan Inc. | *Quality Assurance – Honeywell Aerospace* | 2006-2007

EDUCATION / EXTERNAL ACCREDITATIONS

- Osgoode – Negotiating and Drafting IT Agreements (2021)
- Infrastructure Health and Safety Association – Utility Work Protection Code (2020)
- Project Management Institute – Project Management Professional (2013)
- Canadian Standards Association (CSA), C811 Performance of Highmast Luminaires – Technical Subcommittee (2012)
- LightSavers Canada, Technical Specifications for Procurement of LED Luminaires in Canada – Contributor (2012)
- Professional Engineers Ontario (PEO) – Licensed Professional Engineer (2011)
- Ryerson Polytechnic University – Bachelor of Electrical Engineering Degree (2006)

SUMMARY OF QUALIFICATIONS

Daryn Thompson has more than 30 years' experience in consulting and utility engineering with experience in transmission and distribution asset management, system planning and design, smart grid, and renewables. A strong technical background in distribution planning including long term master planning, asset condition assessment, reliability studies, feeder automation system planning and standards. Planning projects have included the development and filing support of Distribution System Plans, Asset Condition Assessments, development of the Market Rules, and Distribution Standards in Canada and the US. He has written engineering standards and operating and safety procedures for utility power systems. Significant EPC/EPCM projects include substations, energy storage systems and renewables connections.

Daryn has completed several projects relating to the support of capital projects as per the "Filing Requirements for Electricity Distribution Rate Applications". Daryn has reviewed capital plans on behalf of regulators, and has also authored, co-authored, and supervised the development of capital plans for utilities, including North Bay Hydro, Whitby Hydro, Guelph Hydro, Hydro Ottawa, Entegrus Powerlines Inc., InnPower Corporation, Welland Hydro-Electric System Corp., and Northern Ontario Wires. His work in Distribution Planning also includes 5-year and 10-year Master Plans for West Kootenay Power, and GLP and Smart-Grid studies and roadmaps for InnPower Corporation, Entegrus Powerlines Inc., Festival Hydro, Oshawa PUC, and CFB Borden. Daryn has recently completed a project with the Ontario Ministry of Energy to provide technical advisory under the SmartGrid Fund. Daryn has completed many benchmarking studies and best-practice development guides for CEATI interest groups, including station Health Index, Costs of Outages, and Safety standards, and more ongoing projects.

CAREER HISTORY

Education

University of Toronto, Ontario

- B.A.Sc. Electrical Engineering, 1984

Professional Associations

Licensed Professional Engineer, Ontario, Canada

July 2014 to Present

Specialist/Department Leader - METSCO Energy Solutions Inc.

Managing projects and leading engineering teams in research and developmental projects in Distribution System Planning, Smart Grid and Asset Management. Projects include:

Smart Grid Roadmap and System Planning

- FortisAlberta DFO Roadmap Study (on-going)
- Ottawa River Power Corporation Planning Study (ongoing)
- Westario Power Inc System Plan – Walkerton, 2022
- Elexicon DA/CVR Study and ICM Support (2022)
- Toronto Hydro Load Forecast and EV Study (2021)
- Nova Scotia Power – Asset Management System Study (2021)
- Energy+ Cambridge – Control Room Study, 2021
- Westario Power Inc System Plan - Kincardine, 2021
- EPCOR System Planning Policy Review, 2021
- Advisor to the Ontario Ministry of Energy for projects completed

under the SmartGrid fund.

- InnPower Corporation, System Plan, 2015-2016
- Entegrus Powerlines Inc., SmartGrid/System Plan, 2016
- Festival Hydro, Updated Automation Plan, 2014
- Entegrus Powerlines Inc., Feeder Automation Project, 2017
- Medicine Hat, Feeder Automation Project, 2017

Regulatory Narratives/BCEs, ACAs, and Capital Plans for several utilities to support Rate Filing Requirements, including:

- FortisAlberta Regulatory Support and Business Cases (2022)
- Toronto Hydro – Developer’s Guide (2022)
- Elexicon ACA, 2019
- Peterborough Utilities, Distribution System Plan (DSP), 2019
- Algoma Power DSP, 2018
- Burlington Hydro DSP, 2018
- Festival Hydro ACA, 2018
- Kitchener Wilmot Hydro ACA, 2018
- Veridian Connections Inc. DSP, 2018
- Chapleau Public Utilities DSP 2018
- Kingston Utilities Metrics and Benchmarking, 2018
- Essex Powerlines Corporation, Distribution System Plan, 2018
- Northern Ontario Wires, Distribution System Plan, 2016
- Welland Hydro-Electric System Corp., Distribution System Plan, 2016
- InnPower Corporation, Distribution System Plan, 2016
- Ontario Energy Board, DSP Review, 2015
- Entegrus Powerlines Inc., Distribution System Plan, 2014-2015
- Hydro Ottawa, Asset Health Index Validation, 2014-2015
- Guelph Hydro, Distribution System Plan, 2014-2015
- Whitby Hydro, Distribution System Plan and ACA, 2014-2015
- North Bay Hydro, Distribution System Plan and ACA, 2014

Development of Various Guides and Studies for CEATI

International including:

- CEATI 50164: Distribution Planners Manual
- CEATI 50154 – Innovative Techniques to Reduce O&M Costs
- CEATI 50149 – Impact on Worker Safety of DERs
- CEATI 50118 – Health Indices: A Simplified Methodology
- CEATI 30120 – Understanding the Key Factors, Weightings & Prioritization Factors of Health Indices
- CEATI LSMSEA 30110 – Substation Resiliency
- CEATI LCMSEA 30109 – Substation Diagnostics Center
- CEATI DLAM 50136 – SmartGrid Rollout Plan
- CEATI 3089 – Safety in Substations
- CEATI 3087 – Station Equipment Outage Costs
- CEATI 3097 – Station Health Index

Distribution Engineering and Streetlighting

- London Hydro – Arc Flash Study (2022)
- Lakeshore Gold – Arc Flash Study (2022)
- Sudbury PUC, Kathleen MS, 2018
- HONI One Distribution Strategic Plan, 2017
- Newfoundland Power, Downtown System Plan, 2017
- InnPower, Cedar Point MS Rebuild, 2016

- InnPower, Distribution System Plan, 2016
- City of Markham, Parking Lot Streetlight Conversion
- City of Markham Streetlighting Condition Assessment
- InnPower, Substation Assessment 2016
- InnPower, System Planning Study 2017

2009 to 2014

Director Technical Services, S&C Electric Toronto

Responsible for PSS group, including Engineering Projects, Automated Systems Projects, Field Services and Training. Major Projects include:

Smart Grid:

- Manitoba Hydro, Waverly West Automation System.
- Kitimat Rio Tinto, Campus Grid and Automation.
- Toronto Hydro – IntelliTeam II Pilot Installation 50 intelligent devices, Studies, Factory Acceptance, Site Coordination, Training (on-going)
- Veridian – IntelliTeam II Pilot Installation 18 intelligent devices, Studies Installation Standards, Installation Supervision, Commissioning, Training
- Brant County, Ontario, -- System Overview Study including reliability and automation.
- Niagara on the Lake – System Automation Implementation.
- Festival Hydro Stratford Ontario, -- System Overview Study including reliability and automation analysis.
- Fortis – IntelliTeam II Installation 30 intelligent devices, Studies Commissioning, Site Acceptance and Service, Training
- ENMAX – IntelliTeam II Installation 25 intelligent devices, Studies Commissioning and Service, Training.

Renewables and Substations:

- Goulais Wind Farm Interconnection --Engineering Design and Procurement
- WEICan Energy Storage Project – EPC
- BC Hydro Energy Storage Project – Commissioning and Service
- Halkirk Windfarm DSTATCOM – EPC
- Multiple Windfarms DSTATCOM – Commissioning and Service, (Ontario Projects, Point Aux Roche, Demoristville. BC Projects, Cape Scott. Quebec Projects, Saint Robert Bellamin, Massif du Sud, Lac Alfred. Alberta, Quality, Blackspring Ridge)
- First Solar – Seven Solar Farm HV Connection and Protection and Control Turnkey. Including Design Procure and installation.
- Gosfield Windfarm – 230 kV Substation, Project Sponsor 200MW connection and collector system, EPC.

2006 to 2009

Regional Manager Eastern Canada, Hatch T&D(Acres Intl)

Specialist in management, planning, design, and construction of electrical power systems. Major projects include:

- System Impact Assessments –AEP in Pittsburgh, staff of 2 running SIA studies over a 6 month period on behalf of System Operator
- 240kV Switchyard and Cable Terminations -- Confidential Generation Client, Project Manager
- Static Var Compensator (SVC) Design -- Hydro One 13.8kV Substation, Project Manager

- System Impact Assessments -- Nova Scotia Power.
- Substation Design -- Vale Inco, 69kV Substation, Project Manager
- Connection Impact Assessments -- Hydro One,
- Condition Assessment – NYPA. Assessment of equipment associated with 30 breakers, report on condition and suitability for on-going use.
- Asset Condition Assessment – Hydro One. Condition assessment and health indices for 43 asset classes and Audit Report.
- Asset Condition Assessment – Hydro Quebec. Condition Assessment for 30 stations, including demographics, visual condition data, and health indices for 19 asset classes.
- Distribution System Planning Report – Great Lakes Power. Planning study for distribution system including fuse coordination and reliability recommendations in Northern Ontario.
- System Plan for distribution system extension including capital estimates, system performance and reliability in Caledon, Ontario.
- Feasibility study for distribution system rehabilitation including field survey and assessment of distribution systems including capital investment estimates, load forecasting and system modeling in Vietnam (3 week field data gathering trip to Hanoi Vietnam)
- Design of the electrical overhead distribution system for the Community of Natuashish (Davis Inlet Inuit) comprising sub-transmission, distribution, secondary and street-lighting systems for 200+ homes and community facilities.

2003 to 2005**Distribution Engineer, Hydro One Lines, Contract**

- Distribution Standards – Hydro One Lines. Distribution Engineer, Engineering Lines Dept, including reclosers, fault indicators and complete Underground Standards.

2001 to 2003**Acres International and Independent Consultant**

- New Brunswick Market Rules Review – J.D. Irving. Review and commentary, Proposed Market Rules.
- Contract Management Process Audit, IESO – Mississauga. Risk assessment and report on contract management process.
- Retail metering and billing survey. Circulated survey questionnaire to general managers of municipal utilities, collected data, analyzed responses, sorted and prepared draft and final reports for Market Design Committee.

1999 to 2001**Build Cycle Manager, IESO, Contract**

- Development of Market Rules, co-ordination of rule development and ensure approvals in place for ultimate Minister of Energy Approval (under Bill 35). Specific technical involvement to date include: rules for dispatch of load or generation, dispatch data requirements, contingency trading rules, records, interconnections, etc.

1998**Distribution Engineer, West Kootenay Power, Contract**

- 10 year Master Plan Report for West Kootenay Power. Responsible for base system analysis, options identification, cost of losses evaluation, cost of reliability evaluation, optimal system configuration, economic evaluation of alternatives, project listing and rankings; used Scott and Scott Analysis software to identify voltage drop, and losses, Fuse co-ordination study for West Kootenay Power. Application of fuses, breakers and reclosers.

1989 to 1998**Distribution Engineer, Toronto Hydro (York Hydro)**

Responsible for design, project management, planning, records and technical support. Represented York Hydro on all technical committees. Manager of design staff.

- Distribution Standards, Overhead and Underground
- Project management for projects, including: AM/FM , SCADA .
- Design and project management of capital projects. Drawing preparation, estimating and material tendering and acquisition, contract tendering/administration and safety.
- Reliability analysis and tracking, incident investigation, annual reliability indices/cost of outages reports.
- Subdivision planning and design, Major Projects including, Charlton Developments, West Side Mall, and others.
- System planning including, identification of system issues, identification and analysis of planning options, and project funding. York Hydro/North York Hydro/Ontario Hydro Joint Local Integrated Resource Plan (LIRP) for the Downsview area.
- Design and Maintenance of Streetlighting System

1988 to 1989**Project Engineer, Ronald T Gayowsky Ltd.**

Design and project management for underground subdivision projects, overhead connections, street-lighting systems and distribution master planning. Hundreds of projects completed in Mississauga, Oakville, Newmarket, Pickering, Ajax, Ancaster, Dundas, Burlington. Major developments include:

- Mississauga Heartland Industrial Commercial area, Erin Mills Developments, Daniels, Hurontario Industrial developments,
- Newmarket, Glenway Golf Course and Subdivision, Daniels,
- Oakville, River Oaks, phase 3-6, Winston Business Park

**Selected
Technical
Publications &
Presentations**

Health and Risk Index Tool for Stations CEATI Report No. T133700-3097 (LCMSEA) , November, 2015

Safety in Substations

CEATI Report No. T133700-3089 (LCMSEA) November, 2014

Station Equipment Outage Costs

CEATI Report No. T133700-3087 (LCMSEAI)G) September, 2014

SUMMARY OF QUALIFICATIONS

Kurtis Martin-Sturmey is experienced in distribution planning; in particular, forecasting load and completing system studies to assess capacity to accommodate load growth and DERs without overloading existing equipment. He has completed system studies for large distribution utilities and has written Distribution System Plans for several utilities including Burlington Hydro, Elexicon Energy, Energy+, Essex Powerlines, Hydro One Remote Communities, InnPower, Northern Ontario Wires, and Welland Hydro. In addition, he has opined on asset management and maintenance practices for two separate M&A transactions worth a combined \$5B. Mr. Martin-Sturmey is a registered professional engineer in the province of Ontario.

CAREER HISTORY

Education

University of Toronto, Canada

- BAsC in Engineering Science, Graduated 2014
Major: Energy Systems Engineering

Professional Associations

Professional Engineers Ontario (Member)
CIGRE Canada (Next Generation Network Chair)

Other Training

Business Acumen for Emerging Leaders, New Manager's training, Statistical analysis techniques for business, Safety by design, Safety and hazard awareness, WHMIS

2020 to Present

Manager, Asset Management & Performance, METSCO Energy Solutions

Leading a multi-disciplinary team that develops analytics and forecasting solutions in support of infrastructure planning through a blend of engineering, economics, and data science. Delivering complex projects in asset performance management, asset condition assessment, load forecasting, maintenance optimization, and planning for electrical generation and T&D companies.

2018 to 2020

Project Lead, Engineering & Planning, METSCO Energy Solutions

Working as a Professional Engineer in a leadership role; responsible for all aspects of a project's execution and deliverables.

2014 to 2018

Associate, Engineering & Planning, METSCO Energy Solutions

Key projects include creation of Asset Management Plans, asset condition assessments, planning studies, and maintenance optimization studies.

2012 to 2013**Senior Technical Intern, Toronto Hydro**

Maintained CAD drawings (MicroStation), Enterprise Asset Management system, and Geographical Information System. Assisted with project business case development.

Relevant Project Experience**System Studies**

Preparing system studies for utilities considering subtransmission, substation, and distribution capacity in order to plan investments to meet the near-term and medium-term capacity requirements. The study also considered redundancy at the feeder and power transformer level. CYME modelling considered reactive power losses for capacitor placement and voltage drop for regulator placement.

Load Forecasting

Preparing load forecasts for utilities using different techniques for bottom-up, local planning and top-down, system-wide econometric forecasting. The models are developed using a probabilistic approach based on the variability of weather and economic variables.

DER and EV Forecasts

Preparing forecasts of Electric Vehicle and Distributed Energy Resource adoption for utilities. Modelling the impacts on the distribution system and Transmission Stations and where these impacts are expected to occur.

Merger & Acquisition (M&A) Evaluation & Due Diligence

Evaluating prospective capital, maintenance, and operations investment for the utility's entire portfolio from the bottom up and compare against the utility's top-down forecasts as part of the due diligence process. Assess the regulatory conditions supporting the investments.

Distribution System Plans

Developing Distribution System Plans for several utilities in support of their Rate Filing Application, considering historical performance in scorecard metrics, load growth projections relative to capacity constraints, renewable energy generation applications relative to capacity constraints, conservation and demand management, asset condition assessment, and results of customer surveys.

Asset Performance Management

Providing recommendations of sensor installations to support the transition to digital health models. Integrate the sensors with Asset Performance Models to monitor the health of generation and substations assets, including the development of a novel Dynamic Asset Health Index combining dynamic inputs with preventative maintenance records.

Maintenance Review and Optimization

Reviewing reactive and preventative maintenance practices for electrical equipment compared to industry practices and peers. Optimize maintenance practices based on criticality assessment and risk analysis. Roadmap for maintenance improvements and development of KPIs.

Asset Condition Assessments

Performing Asset Condition Assessment for utilities: a yardstick comparison of the condition of fixed assets, based on historical inspection, maintenance, and failure history. On-site inspections are sometimes performed for electrical assets to determine their condition.

Health Index Review

Reviewing the asset Health Indices for utilities and providing recommendations to align them with best practices. Recommending data collection and process improvements.

Best-Practices Reports

Authoring industry best practice reports on the topics of distribution planning, Asset Management Plan development, Asset Condition Assessment, risk-based planning, feeder automation, sensors for substations, transmission line sensors, and infrared inspection.

Projecting Asset Replacement Needs

Completing analysis and preparing reports that project the utility's asset replacements over the forecast period based on the Asset Condition Assessment and in consideration of expected deterioration rates.

Investment Prioritization Tools

Created a proprietary tool to prioritize power system investments based on user-defined criteria for use in distribution planning.

Selected Publications

K. Martin-Sturmey, M. Elsayi, R. Sinclair, "Forecasting Grid Capacity Impacts of Electric Vehicles," in *2022 CIGRE Canada Conf. & Expo*, Calgary, AB, Canada, 2022.

K. Martin-Sturmey, D. Thompson, S. Fatima, "Distribution Planner's Manual Module 4: Load Forecasting," CEATI International, Montreal, QC, CEATI Rep. No. T214700-50164, 2022.

K. Martin-Sturmey, et al., "Asset Management Key Performance Indicators for Generation Assets," CEATI International, Montreal, QC, CEATI Rep. No. T192700-0602, 2022.

K. Martin-Sturmey, R. O'tal, N. Pirritano, "Enterprise Risk Management," CEATI International, Montreal, QC, CEATI Rep. No. T203700/4203, 2021.

K. Martin-Sturmey, A. Alfalahi, A. Bakulev, "Effects of Future Uncertainty on Present-day Asset Management," 2019 CIGRE Canada Conf., Montreal, QC, Sep. 2019.

K. Martin-Sturmey and L. Tsinigine, "Maintenance Optimization and Roadmap for SRP's Distribution Assets," CEATI T&D Conf., Palm Springs, CA, Nov. 2019.

K. Martin-Sturmey et al., "Guide for Developing an Asset Management Plan for Each Asset," CEATI International, Montreal, QC, CEATI Rep. No. T017700-30/119, 2018.

A. Alfalahi, K. Martin-Sturmey, A. Bakulev, "Guide for Asset Replacement Strategies with an Asset Management Plan Leveraging a Risk-Based Approach – Part 2," CEATI International, Montreal, QC, CEATI Rep. No. T153700-30/107B, 2019.

D. Thompson and K. Martin-Sturmey, "Practical Rollout of Feeder Automation on the Distribution System," CEATI International, Montreal, QC, CEATI Rep. No. T164700-50136, 2018.

A. Bakulev, T. Hjartarson, K. Martin-Sturmey, "Guide for Asset Replacement Strategies with an Asset Management Plan Leveraging a Risk-Based Approach - Part 1," CEATI International, Montreal, QC, CEATI Rep. No. T153700-30/107A, 2017.

D. Thompson, T. Hjartarson, K. Martin-Sturmey, B. Lau, "Development of a Health and Risk Index Tool for a Station," CEATI International, Montreal, QC, CEATI Rep. No. T143700-3097, 2016.



Most Recent PROFESSIONAL EXPERIENCE

Utilis Consulting Inc. (2019 – Present)

Vice-President & Partner

Enbridge Gas Distribution, Toronto, Ontario, Canada (July, 2003- December 31, 2018)

Director, Regulatory Affairs (Sept, 2017 – December 31, 2018)

Director, Regulatory Affairs, Financial Planning & Analysis (January 1, 2013 – August 30, 2017)

Appointed President, Niagara Gas Transmission Ltd & Affiliate Company (May, 2016 – December 31, 2018)

Senior Manager, Marketing and Energy Efficiency (January, 2010 – December 31, 2012)

Customer Information System (CIS) Business Manager (May, 2006 – December 31, 2009)

Manager, Business Systems Information Management (July, 2003 – April 30, 2006).

Education & Development

University of Toronto, Masters of Business Administration, 2016

University of Toronto, Bachelor of Applied Science, Mechanical Engineering, 1990

Ontario Energy Board Appearances

EB-2011-0295

EB-2012-0394

EB-2012-0459

EB-2014-0276

EB-2015-0114

EB-2016-0215

EB-2017-0086

EB-2017-0306/0307

Emmanuveal Arulseelan, P.Eng, PMP

BASc Mechatronics Engineering

WORK EXPERIENCE

Grid Advancement Engineer, Operations Technology & Innovation May 2022-Present
Ellexicon Energy Inc.

Engineer, Standards & Energy Solutions July 2019-May 2022
Toronto Hydro

- Supported the technical evaluation, analysis, and leading the design, deployment and verification of multiple Battery Energy Storage Systems (BESS) projects to better operate the utility grid and prepare the distribution system for future needs.
- Developed specifications and technical requirements for RFPs regarding the implementation of Grid Advancement solutions, proof of concept/pilot projects. RFPs include projects to mitigate PQ issues - one to combat reverse power flow issues and another for the implementation of a microgrid.
- Worked with a team of Engineers to determine how to implement distribution automation/smart grid technologies and DERs (specifically BESS). My tasks involved determining appropriate BESS sizes, performing technical analysis using CYMEDIST to determine any capacity and short circuit constraints as well as finding suitable locations to house the projects.
- Acted as an Engineering Lead on customer DER projects from the pre-assessment, Connection Impact Assessment (CIA) up to the Commissioning as well as Connection Agreement stage. DERs include BESS, Combined Heat and Power (CHP), Vehicle-2-Grid (V2G), etc.
- Fully completed numerous customer as well as a utility owned DER project from conceptual to commissioning stage. These include FIT, Global Adjustment as well as Net-Metering projects.

Project Analyst, Standards and Technical Studies July 2016-July 2019
Toronto Hydro

- Utilized CYMEDIST and CYMTCC for several distribution system studies such as short-circuit, load flow, transient and system reconfiguration. This includes Protection and Coordination (P&C) reviews for Transformer and Municipal Substations as well as customer coordination.
- Prepared engineering and technical reports such as pre-assessments, CIA and special studies.
- Developed Technical Specification documents for RFPs related to custom-made transformers and BESS projects to address various grid needs.

Contractor at Toronto Hydro June 2015-July 2016
METSCO Energy Solutions Inc.

Senior Technical Student, Generation Planning and System Studies April 2013-August 2014
Toronto Hydro

EDUCATION

University of Ontario Institute of Technology April 2015
Bachelor's Degree- Mechatronics Engineering

PROFESSIONAL QUALIFICATIONS

Professional Engineers Ontario (PEO) – Professional Engineer (Since October 2018)
Project Management Institute (PMI) – Project Management Professional (Since March 2019)