

RCES WORKSHOP PROGRAM

January 29th, 2026

Sponsors



IEEE Northern Canada Section
Power Electronics Society Chapter

Towards a Resilient Energy Future: Robust Grid, Renewables, AI, and SMRs

Focus

As Alberta advances toward a resilient and sustainable energy future, the province faces increasing complexity across its power system. Building a robust power grid therefore has become a central objective, driven by emerging technical challenges as well as new opportunities enabled by rapid technological development. In particular, growing renewable and clean fuel integration is accelerating the transition to cleaner energy while also increasing variability and the need for greater operational flexibility. AI further introduces both substantial electricity demand from large data centers and powerful tools for improving forecasting, stability, and system optimization. In addition, advances in nuclear technologies such as Small Modular Reactors (SMRs), presents a potential pathway to firm, low-carbon baseload generation that can enhance long-term system reliability. By bringing together diverse perspectives, this workshop aims to foster informed discussion on pathways toward a robust, resilient, and future-ready energy system for Alberta.

Panelists

This workshop will bring together experts from the HATCH, City of Edmonton, Alberta Innovates, and the University of Texas.



Jeanie Chin
Senior Engagement Manager
HATCH

Moderator



Patrick Baltazart
Corporate Lead /
ZEV Transition
City of Edmonton

Panelist



Wei-Jen Lee
Professor
University of Texas

Panelist



Robert Baker
Director
Renewable & Alternative
Energy
Alberta Innovates

Panelist

Date/Time

January 29, 2026, 1:00 pm-3:30 pm

Location

Auditorium, DICE 8-207, University of Alberta

Agenda (1:00pm-3:30pm)

- Introduction (2-3 slices)
- 15 min / speaker, introduction of the speaker, the company and the AI in Alberta vision
- Discussion
- 10 min Coffee Break
- 1-hour Panel discussion
- Free time for further audience discussions

Panelists' bios:

Jeanie Chin is a Professional Engineer and Project Management Professional with more than 19 years' experience in the electric utility industry. She is a leader in developing and implementing innovative and complex projects in the HVDC & FACTS, solar PV, battery energy storage systems, and medium and high voltage sectors. Throughout her career, Jeanie has managed projects working with stakeholders including government agencies, major equipment vendors, operating authorities, utilities, and Indigenous communities. Currently, Jeanie is a Senior Engagement Manager with Hatch, managing power projects across Canada and the United States.

Patrick Baltazart is the City of Edmonton's Zero Emission Vehicles (ZEV) Transition Lead, responsible for developing strategies and policies to decarbonize a fleet of 6,000 vehicles, including 1,000 transit buses. He has 25 years of experience in business development and in managing multidisciplinary teams that deliver Architectural, Structural, Mechanical, Electrical, and Instrumentation/Control (ASMEIC) services across a wide range of sectors, including building, utilities, industrial, oil and gas, transportation, and renewable energy. His work also addresses complex challenges such as electrical, hydrogen energy procurement, and the implementation of new maintenance practices across multiple departments and sub-fleets.

Prof. Wei-Jen Lee is a professor and chair of EE Department at the University of Texas at Arlington. His research focuses on Utility Deregulation, Renewable Energy, Arc Flash Hazards and Electrical Safety; Smart Grid, AI for Load, Price, and Wind Capacity Forecasting; Power Quality, Demand Response, Power Systems Analysis, Short Circuit Analysis and Relay Coordination; and Distributed Energy Resources, Energy Storage System, and EV Charging Infrastructure Design. He has served as the primary investigator (PI) or Co-PI on over 120 funded projects and provided on-site training for power engineers in Panama, China, Taiwan, Korea, Saudi Arabia, Thailand, and Singapore. In addition, He has contributed to the revision of IEEE Std. 141, 339, 551, 739, and 1584, as well as the development of 1584.1, 1584.2, 3002.8, and 3002.9.

Robert (Rob) Baker, P.Eng. (EE), is the Program Director of Renewable and Alternative Energy at Alberta Innovates (AI). Rob has over 35 years of power system experience in the utility, system operator, and consulting environments. As a transmission planner, Rob has led study and analysis for the successful integration of thousands of MW of system capacity, advanced areas such as probabilistic reliability analysis, co-authored energy transition papers, and has contributed to thought leadership on the future power system. Rob has provided expert witness services in several regulatory hearings on a variety of technical and policy issues throughout North America.