

## Sustainable Energy Seminar Series

## Challenges and Research in Northern & Remote Electric Power Systems

There is a paradigm shift in the energy transition to reduce Canada's reliance on diesel fuel for electric power generation. However, there are unique challenges to meet this objective through the integration of renewables — not just through the electric power system operating constraints, but the realities that are faced by northern and remote communities in the Canadian territories. This presentation will outline some of the unique challenges faced by the northern electric power industry, demonstrate examples of how research projects pursued by the Yukon Research Centre address those needs, as well as provide insight into some realities of pursuing successful projects in northern Canada.

**Thursday, February 13<sup>th</sup>** RM 2017 Dunton Tower Carleton University

5:45 – 6:00 PM Meet the Speaker

6:00 - 6:45 PM Presentation

6:45 - 7:30 PM Q & A



**Dr. Michael Ross** is the NSERC Industrial Research Chair in Northern Energy Innovation at the Yukon Research Centre, Yukon College. His applied research program addresses the needs of the northern energy industry through academic partnerships with all three colleges in the territories, and through industry-driven direction and support from all four territorial electric power utilities. His research for the program focuses on integrating a high penetration of renewable generation in remote communities, energy storage systems, diesel efficiencies, and demand-side management. Dr. Ross holds a master's degree and a Ph.D. in Electrical Engineering from McGill University and is a registered Professional Engineer.



