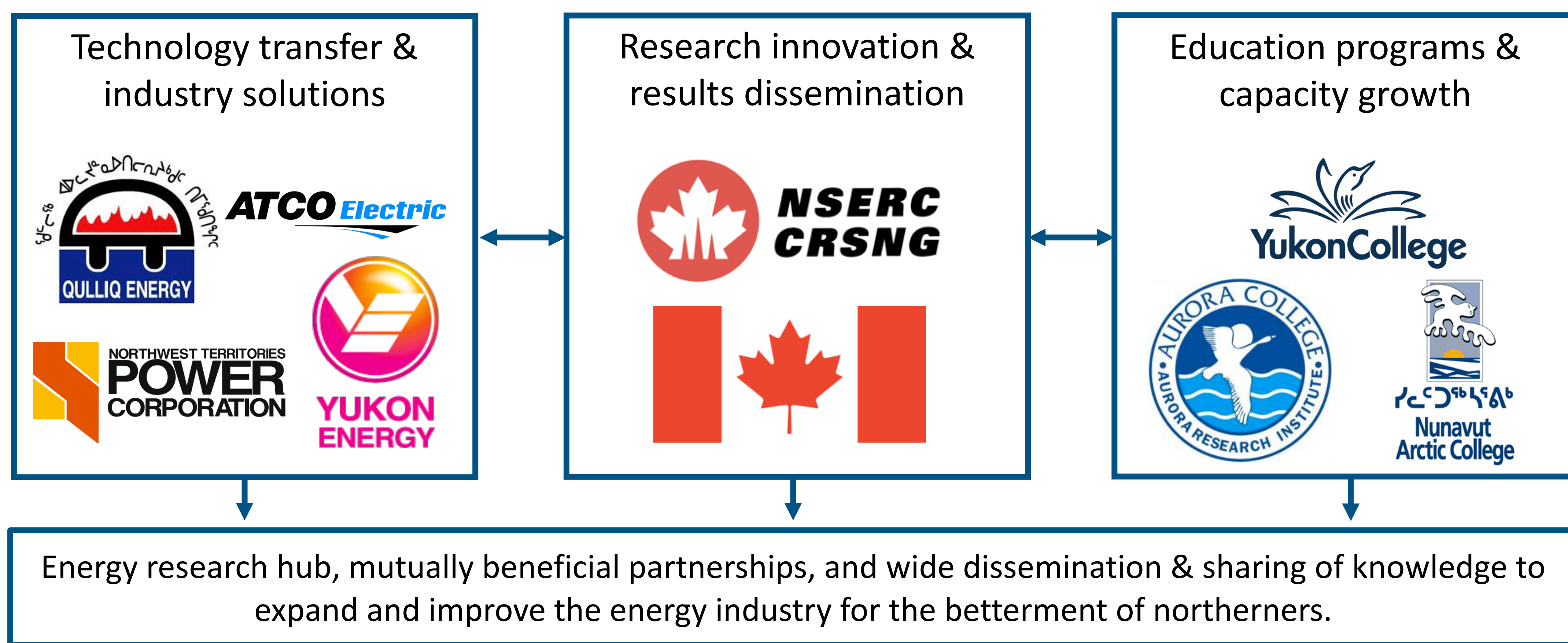


New Research Ventures in Northern Canada

Michael Ross

Overview



The northern electric power utilities (ATCO Electric Ltd., Northwest Territories Power Corporation, Qulliq Energy Corporation, and Yukon Energy Corporation) have identified a need for applied research in the Canadian territories to address the specific needs and unique challenges facing their industry.

Backed by support from the Canadian federal government, the role of the Industrial Research Chair in Northern Energy Innovation is to establish an industry-driven research program that addresses the industry's needs with wide dissemination of knowledge and technology transfer throughout the territories.

Applied Research Programs

Integration of high penetration renewables in isolated grids



How can we integrate a high level of renewables into isolated communities to reduce our reliance on diesel?

Energy storage



What storage technologies are viable in the north and how can they help solve northern energy issues?

Diesel efficiencies



How can we operate existing diesel systems more efficiently to reduce both consumption and emissions?

Independent energy valuation



How do energy costs of various technologies compare across the North?

Residential and utility partnership



What technologies could support the public to be off-grid?

Demand-side management



How can smart meters be best used to make energy consumption more efficient or to better match renewable generation?



**NSERC
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ATCO Electric



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