



Leading the Way

Northern Alberta Institute of Technology (NAIT)

NAIT's Master Energy Strategy, aligned with the recent update to our Campus Development Plan, provides the strategic framework for NAIT to continue to transform our campus operations with a focus on sustainability. We are proud to participate in the City of Edmonton's Corporate Climate Leaders Program and look forward to sharing ideas with colleagues and supporting each other as we work toward our goals.



LAURA JO GUNTER
President & CEO



Background

The Northern Alberta Institute of Technology (NAIT) is a leading Canadian polytechnic, delivering education in science, technology and the environment, business, health and skilled trades. As educators and innovators, NAIT prepares students for careers in alternative energy by delivering industry relevant education.

CLIMATE ACTION HIGHLIGHTS



Building Electrification

NAIT created a **Master Energy Strategy (MES)** to provide a roadmap to achieve a 72% reduction in energy usage intensity per sq ft by 2050.



Corporate Climate Leader since 2018



2009 Baseline Year Emissions
45,250 Tonnes of GHGs



Targets
30% GHG emissions reduction by 2025 from 2009 baseline

Building Electrification






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MASTER ENERGY STRATEGY (MES)

PROJECT DEVELOPMENT

The creation of the MES involved consultation with a wide range of stakeholders, resulting in a long term strategy and the following actions:

-  **MEASURING ENERGY PROFILES** of NAIT's campus buildings
-  **ANALYZING IMPACTS AND LIMITATIONS** of power generation through electrification and advanced microgrid controls
-  **ASSESSING EXISTING SYSTEMS** within NAIT's energy infrastructure and ways to maximize its efficiency as NAIT transitions towards net-zero
-  **IDENTIFYING OPPORTUNITIES** for improving energy performance on campus within the limitations of land and building infrastructure
-  **APPLY LEARNINGS** From the execution of the MES to improve NAIT's future alternative energy curriculum and industry training programs

PROJECT OUTCOMES

NAIT examined how to meet their emission reduction goal while simultaneously growing the size of their campus. NAIT determined that through energy efficiency initiatives including electrification, renewable energy, net-zero buildings, and advanced microgrid controls, it will be able to reduce its energy usage intensity significantly. Based on their MES, NAIT will see the following results by 2050:



240%
increase in campus floor space



72%
reduction in energy use per sq ft

PARTNERSHIPS



NAIT partnered with:

- The **Community Generation Capacity Building Program**, which enabled NAIT to examine the viability of developing a community generation project focused on using multiple clean energy strategies.
- **AECOM** to assess the existing condition of the campus to identify alternative methods for energy generation and assist NAIT in the development of the MES.

PROJECT BENEFITS



Increased
Brand Profile



Public Demonstration of
Organizational Values