



ATCO – Electric Utility Operations & Innovation

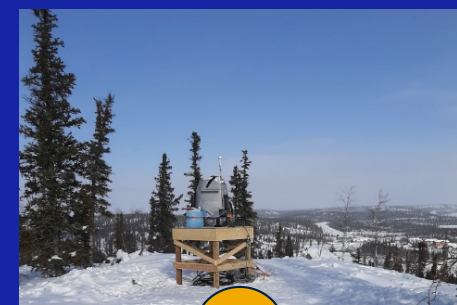
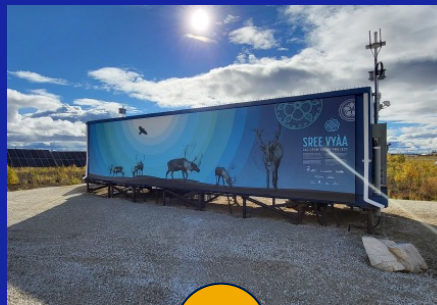
2024 International Energy Forum

May 15, 2024





Community and Telecom Sites Diesel Reduction



2016

Remote Telecom
Renewables

2019

Office Facility
Renewables

2020

Fort Chipewyan
Solar

2022

Old Crow
Solar

2022

Isolated Generation
Renewables

Present

Community
Renewables
(various)

25%

of the community's electric
needs will be replaced
with renewable energy

800,000 L

of diesel displaced annually

2,145 TONNES

reduction in CO₂
emissions annually

FORT CHIPEWYAN SOLAR PROJECT

Together with three Indigenous communities in Fort Chipewyan, Alberta, ATCO integrated a solar array with an existing diesel generation facility (5.8 MW total) to offset ~ 800,000 L of annual diesel consumption. Phase 1 of the project installed a 608 kWDC ground-mount system, upgraded the local distribution system and modified the existing generation plant's controls to support the array. For Phase 2, ATCO has partnered with Three Nations Energy to expand the solar farm to 2.2 MWDC and add 1.5 MWh of battery storage to optimize generation and provide additional reliability to the electrical grid. Our team completed the feasibility study for the solar farm and BESS. Fort Chipewyan is very remote, electrically isolated from the Alberta grid and land-accessible only by winter ice road. To manage these logistical challenges, ATCO maximized the use of local resources, employing community members to help install solar panels and adjusting our training programs so the community has trained and qualified individuals prepared for operations and maintenance.



750 TONNES

reduction in CO₂
emissions annually

25%

of the community's
electricity needs replaced
with renewable energy

190,000 L

of diesel displaced annually

Enables community
ownership and self-sustaining
economic development
from the sale of clean energy



SREE VYAH SOLAR PROJECT

The Vuntut Gwitchin First Nation, as the Independent Power Producer, owner and operator, and ATCO Electric Yukon established a first-of-its kind Electricity Purchase Agreement (EPA) for ATCO to purchase the electricity generated at the solar PV facility for the next 25 years and will be an important source of revenue for this remote Indigenous community. As of the beginning of August 2021, the solar project is 100 per cent operational in which diesel generations were shut off for the first time in over 50 years and plans to be off diesel during the summer months for the years to come.



1,100 TONNES
reduction in CO₂
emissions annually

55%
of the community's
electricity needs replaced
with renewable energy

SAA SÈ ENERGY PROJECT

One of the smallest First Nations in the Yukon is making a big move toward offsetting diesel emissions in the community of Beaver Creek. ATCO Electric Yukon and Copper Niisüü Limited Partnership finalized a landmark Electricity Purchase Agreement (EPA) that will help the White River First Nation reduce their reliance on diesel power, achieve greater energy autonomy, and generate economic benefits for the next 30 years. Construction will begin in May 2023 with the expectation to have a fully operational facility by 2024.

325,000 L
of diesel displaced annually

KLUAKE N-TS'I (WIND)

The Kluane First Nation is working to install, own, operate and maintain wind turbine technology in Destruction Bay, Yukon. In order to capture the full wind power generation and to maintain a stable and reliable power grid, they are working with ATCO Electric Yukon to install, own, operate and maintain the battery and energy management system. Kluane First Nation has been collaborating with ATCO on the wind project since 2011.



52%

of the community's electricity needs
replaced with renewable energy

310,000 L

of diesel displaced annually

Enables community ownership and
self-sustaining economic development
from the sale of clean energy



Thank you

ATCO.com

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