

Solar Projects



Fort Simpson - Generating since February 2012

This system is the second largest solar PV system in the NWT, almost twice the size of the installation on the Greenstone Federal Building in Yellowknife. An aside from Colville Lake, it is larger than any installation north of 60, in Saskatchewan, or in Alberta.

The system was installed in two phases: Phase 1 in February 2012 (60.6kW) and Phase 2 in February 2013 (43.6kW). The 104.2 kW project was funded through GNWT's Energy Priorities Framework: \$993,000 over two years; NTPC contributed \$81,000 to the project.

Fort Simpson is NTPC's second largest diesel-powered community -- Inuvik is the largest. This system provides enough energy for up to 17 houses in the community or up to 15% of the minimum power requirements in the summer in Fort Simpson.

The system displaces approximately 100,000 kWh of diesel generation, or 76.5 tonnes of CO2 equivalent per year. The entire array is almost 300' long -- the length of a football field.

Between March 2012 and May 2016, the system generated over 425 MWh, enough electricity for one day's supply of 14,100 houses. Over that same period, using solar panels has displaced enough diesel fuel to keep 290 tons of carbon emissions out of the atmosphere, which is equivalent to planting 7,560 trees.



Plugging in the solar panels in Colville Lake
Colville Lake project has its own fact sheet.

Fort Liard - Generating since March 2016

A 39 kW solar PV array was successfully built and connected to the NTPC power plant on land near the Fort Liard Airport.

This system was brought into service on March 30, 2016, and the energy saved by the project is estimated to reach 39,000 kWh per year.

The final cost of the project, once a fence is installed, is budgeted to be close to \$410,000.

Wrigley - Generating since April 2016

A 10 kW solar PV array was built and connected to the Northwest Territories Power Corporation plant in Wrigley in April 2016.

The energy saved by a 10kW project in Wrigley is estimated to be 10,000 kWh per year. This is equivalent to approximately 3,000 L of diesel, or 8.54 tonnes of CO2 equivalent saved annually.

The cost of the project was \$142,000.

You can see the daily solar generation for each of our solar arrays by checking out these web pages:

Colville Lake (Phase One): <http://tinyurl.com/zvazbet>
(Phase Two): <http://tinyurl.com/z4kxncm>

Fort Simpson: <http://tinyurl.com/hyowab4>

Fort Liard: <http://tinyurl.com/hqoyc7c>

Wrigley: <http://tinyurl.com/hfo2o3e>

Other Projects & Programs:

Wind Turbines: The Government of the Northwest Territories' Department of Public Works and Services is studying the feasibility of wind in the Beaufort and North Slave Regions of the Territory. Two to three years of wind data is required before it can be considered for a wind turbine installation.

Liquefied Natural Gas (LNG): Inuvik has been running on a mix of LNG and diesel since February of 2014 and it continues to be less expensive than diesel fuel.

Net Metering Program: Residents, businesses and local governments can install solar generation on their own property and get a credit for putting their excess generation on to the local grid. This allows Net Metering Customers to generate more than they need in the summer and "bank" it to use in the winter time. All net metering accounts are reset to zero at the end of each fiscal year.

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