



# SOLVEST

NORTHERN SOLAR SOLUTIONS

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## Company Profile

### QUALIFICATIONS

*With over 6 Megawatts of solar installed in northern Canada, Solvest is the industry leader in residential, commercial, and utility-scale photovoltaic (PV) projects North of 60°. Solvest routinely demonstrates the ability to efficiently and effectively design, procure, and construct solar arrays at costs that are competitive across Canada.*

Our ability to take a client step-by-step through the entire solar process is what sets us apart from other PV solar installers. We design, procure, construct, handle all permitting, and assist in funding and grant writing. We employ local talent including red seal electricians, engineers, and trained solar installers. Being able to source our equipment from multiple vendors across the world allows us to provide competitive nationwide pricing.

Any time of year, our electricians and technical team will be able to assist with any potential troubleshooting. Solvest services all product warranties from the manufacturer, including 25-year linear power production warranties on solar modules.

With multiple large-scale projects in multiple jurisdictions, Solvest has the expertise in implementing utility-scale projects across Canada. Our understanding of Power Purchase Agreements (PPA's), regulatory bodies and industry standards ensures a streamlined back-end process for our PV solar arrays.

## PAST PROJECTS

The following list represents a small sample of over 350 solar projects Solvest has been involved in throughout northern Canada, BC and Manitoba. This list focuses on some of the larger, more complex projects and, in all cases, they were designed, engineered, procured and constructed by Solvest. These projects represent collaboration with First Nations, private industry, development corporations, and non-profits both on and off-grid.

### Client: Fisher River Cree Nation + WDusk Energy Group

Location: Fisher River, Manitoba

Project Size: 1MW DC – 816kW AC



In February 2018, Solvest was retained by WDusk Energy Group and Fisher River Cree Nation (FRCN) to design and construct a 1MW DC solar project in Fisher River, Manitoba. Construction began in July of 2018, with completion later that same month. This is the largest PV solar array currently in Manitoba.

Solvest partnered with the North American Solar Academy (NASA) to provide 5-day certified training for 10 local citizens of FRCN, who then worked on the installation. This project included approximately 2,800 panels and 5-acres of land.

### Client: Vuntut Gwitchin First Nation

Location: Old Crow, Yukon

Project Size: 940kW DC – 480kW AC



In 2018, Solvest designed the Old Crow solar array. We were then awarded the contract to construct the solar component of the diesel-solar microgrid. The racking construction was completed in October 2018, with the second phase of construction and commissioning being completed in the summer of 2019.

This is the first utility-scale solar installation in northern Canada, and the first solar-diesel micro grid of significant size in a remote community. It was awarded the *Award of Excellence in the 2019 Canadian Consulting Engineering Awards*, in Ottawa. This array will displace 195,000 litres of diesel annually.



## Client: Gwich'in Development Corporation – Nihtat

Location: Inuvik, NWT

Project Size: 687kW DC – 456kW AC



In 2018, Solvest worked with the Nihtat Gwich'in Development Corporation to install various PV systems in Inuvik, NWT. Solvest designed and installed 32 residential Gwitchin owned houses as well as two commercial PV systems. These commercial systems are “behind the meter”, meaning production was matched up with base load using smart controllers, to ensure no export to the grid.

The combined installations added 687kW DC of renewable energy onto the local grid. These systems were designed to offset 145,000 litres of diesel on an annual basis.

## Client: Quantum Machine Works

Location: Whitehorse, Yukon

Project Size: 123kW DC – 96kW AC



In June 2018, Solvest was hired by Quantum Machine Works to design and construct a solar array for two buildings located in Whitehorse, Yukon. This was the second solar project installed for the privately-owned company. These two solar arrays on adjacent buildings were installed over the course of two weeks for a combined DC capacity of 123kW. The project is now fully commissioned and will produce 125,000kWh a year which will reduce the energy bills of Quantum Machine Works' by 40%.



## Client: Kluane Lake Research Station

Location: Kluane Lake, Yukon

Project Size: 23kW DC – 20kW AC



In 2019, Solvest installed a 23kW solar array along with a 90kWh battery bank, designed to power the Kluane Lake Research Station (KLRS). As this location is remote, battery was specifically designed to be able to freeze to -68°.

The KLRS is located 220 km northwest of Whitehorse on the south shore of Kluane Lake. This station is located on the traditional lands of two First Nations; the Champagne-Aishihik and White River. This station was designed to support researchers from across Canada study the North.

## Client: Na-Cho Nyak Dun First Nation

Location: Mayo, Yukon

Project Size: 27kW DC – 20kW AC



In February 2017, Solvest was selected to design and construct a solar PV system on the roof of the Nacho Nyak Dun First Nation (NNDNFN) Governance building in Mayo, Yukon. Solvest designed a 27kW DC – 20kW AC solar array with careful consideration for the architecture of the building which is shaped in the image of a leaping salmon. The system was installed in 3 days, despite -40°C temperatures in Mayo, ensuring that the project was completed before fiscal year end on March 31<sup>st</sup>. In the first year of operation, the project generated over 25,000 kWh of energy.



## Client: Champagne and Aishihik First Nations

Location: Haines Junction, Yukon

Project Size: 28kW DC – 20kW AC



In January 2018, Solvest was awarded an EPC contract for the Champagne and Aishihik First Nations (CAFN) main administration building in Haines Junction, YT. This project had to be designed and installed by March 31st regardless of weather conditions. Solvest successfully installed the 28.8kW DC – 20 kW AC system in less than 4 days. The architectural design of the building was considered when designing the solar aspect. The project is now fully commissioned and is expected to produce 26,000 kWh a year.

## Client: Kluane First Nation

Location: Burwash Landing, Yukon

Project Size: 43kW DC – 40kW AC



In March 2016, Solvest was selected to construct roof top solar arrays totaling 43kW for Kluane First Nation. Due to budgetary year end requirements, this project had extremely tight timelines requiring the arrays to be designed and installed within 30 days. Solvest designed three solar arrays for adjacent Kluane First Nation buildings, two 15kW installations, and one 13kW installation.



# EXECUTIVE PROFILES

## **Drew Cameron**

Co-founder and President

Drew founded Solvest with the help of Ben in 2012. His experience working in the oil and gas industry, has garnered a network of professionals and companies that he has since been able to utilize in his role in Solvest. His passion to make the world a better place, first through healthcare and now through renewable energy shows in his day-to-day work. Drews primary role as President is to work with large scale customers across Canada, taking their concepts and turning them into fully functional solar PV systems.

## **Ben Power**

Co-founder and Vice President

Ben has extensive experience working across Canada in a variety of roles, both in the resource extraction and construction industries. He went on to cofound Solvest with Drew and has led the team in designing systems from small off-grid cabins to large utility scale projects. His technical background in engineering and construction has assisted in him in designing optimal systems for northern applications. He prides himself in his attention to detail that and his ability to pass on knowledge to the rest of his team.

## **Michael Schultz**

Operations Manager and Partner

With over a decade of experience managing mineral exploration projects, teams, and resource extraction across the globe, Michael has developed a broad and engaging set of skills. As Operations Manager, Michael oversees the daily operations and works closely with his team to ensure projects are delivered on time and on budget. Michael has met the challenge of working in new sectors and regulatory environments and is constantly meeting with key stakeholders in the energy industry to guide the direction of solar in the North.

## **Joel Stacey**

Construction Superintendent

Joel is an experienced Red Seal carpenter with a background in energy efficient construction. From starting at Solvest in 2015, Joel has gone from leading installation crews to being responsible for implementing array design, coordinating construction and electrical work. Joel has successfully led the Solvest installation crew in over 160 solar arrays in the Yukon, NWT, BC and Manitoba. He oversees the installation crews and manages logistics of operating across so many different geographical regions.

## **Tyler Martin**

Electrical Superintendent

Tyler is a certified Red Seal electrician with over a decade of experience working on commercial, residential, and PV projects throughout Canada. In 2015, Tyler began working with Solvest on a variety of residential and commercial solar installations throughout the Yukon. In fall of 2017, Tyler took over as the electrical supervisor leading the electrical team. He is responsible for implementation of electrical design, electrical schematics, overseeing the DC and AC wiring, and commissioning the inverter systems.

