



**PV SYSTEM SUPPORTS DIESEL  
GENERATOR IN CANADA'S  
EXTREME NORTH  
A SAVING OF 80,000 EUROS  
IN 20 YEARS**

Sachs Harbour, Canada: The inhabitants of Sachs Harbour source the diesel for their local power generators from 523 km away. The fuel can only be delivered by air or by sea and therefore, the costs are well above average.

# ANNUAL SAVING OF 4,100 EUROS

Up until a few years ago the entire mains supply of this off grid community, with a population of 130 people, came from a single diesel generator. In autumn of 2015, the local energy supplier decided to install three Fronius Primo inverters, with the aim of reducing the financial costs. Grid parity of the PV energy is set to be achieved faster than anticipated due to high diesel costs in Sachs Harbour. Consequently, they will have a very low payback time of less than six years, following which the system will be paid off enabling the residents of Sachs Harbour to save more than 80,000 euros in diesel costs in the first 20 years.

<b>DIESEL SAVING COST SAVING</b>	<b>3,600 LITRES P.A. 4,100 EUROS P.A.</b>
<b>PAYBACK TIME COST SAVING OVER 20 YEARS</b>	<b>~ 6 YEARS ~ 80,000 EUROS</b>



TEMPERATURES IN SACHS HARBOUR CAN DROP TO -37°C:  
BUT THE FRONIUS PRIMO TAKES IT ALL IN ITS STRIDE.

## OPTIMUM PERFORMANCE IN EXTREME CONDITIONS

Depending on the time of year, temperatures in Sachs Harbour normally range between -18°C and -37°C. Yet the Fronius Primo has once again shown that it thrives in these extreme conditions. The inverter is designed to withstand ambient temperatures between -40°C and +55°C, meaning that it can be used in extreme conditions ranging from the Canadian Arctic to the Kalahari in Namibia.

*“We used a modular mounting system which is designed for permafrost locations, is perfectly scalable and works very well with the 5 kW Fronius inverters. We like the dual MPPT because it matches the system’s dual row design.”*



/ Klaus Dohring  
CEO  
Green Sun Rising Ing.

SYSTEM DATA	SACHS HARBOUR, CANADA
Size of installation	15 kWp
System type	Ground mount PV system connected to micrgrid with diesel generator
Inverters	3 x Fronius Primo 5.0-1
Commissioned	Fall 2015
Special feature	Extreme temperatures up to -37°C