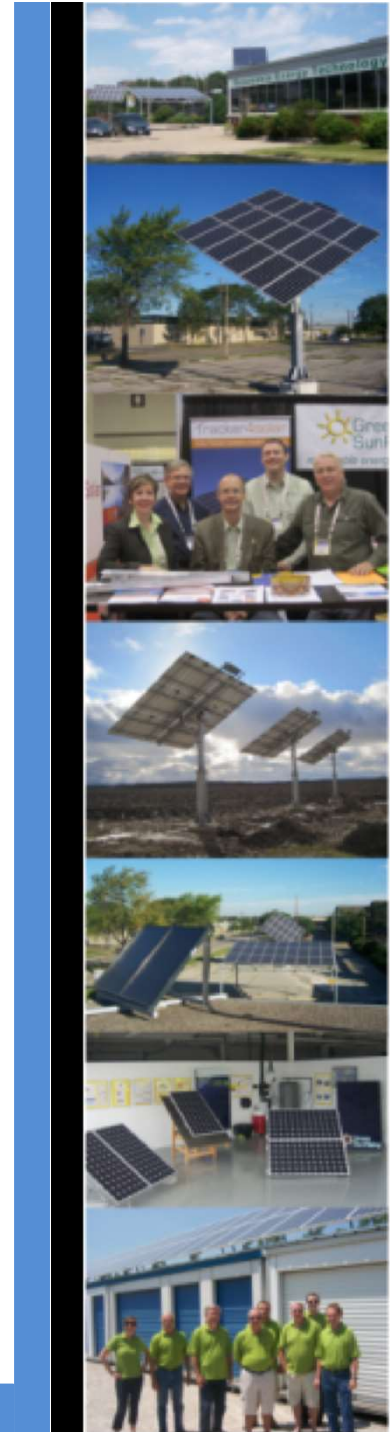




07 Feb 2024 University of Waterloo – Diesel Reduction with Solar PV in the far North



Green Sun Rising Inc.
1680 Kildare Road
Windsor, ON N8W 2W4
Phone: 519-946-0408
Email: info@GreenSunRising.com





Renewable Energy Technology

Agenda:

1. Who we are
2. Overview solar thermal systems
3. Overview solar PV systems
4. Solar PV projects in the Arctic – Northern-most
5. 110kW solar PV project in Rankin Inlet (Kangiqliniq/
ᑭᑭᑭᑭᑭᑭᑭᑭ) – first larger CIPP solar PV system in Nunavut
6. Annual Diesel savings through cumulative solar systems
7. Short Nunatsiavut Nain solar system video
8. Q&A





Renewable Energy Technology

1. Who we are Green Sun Rising:

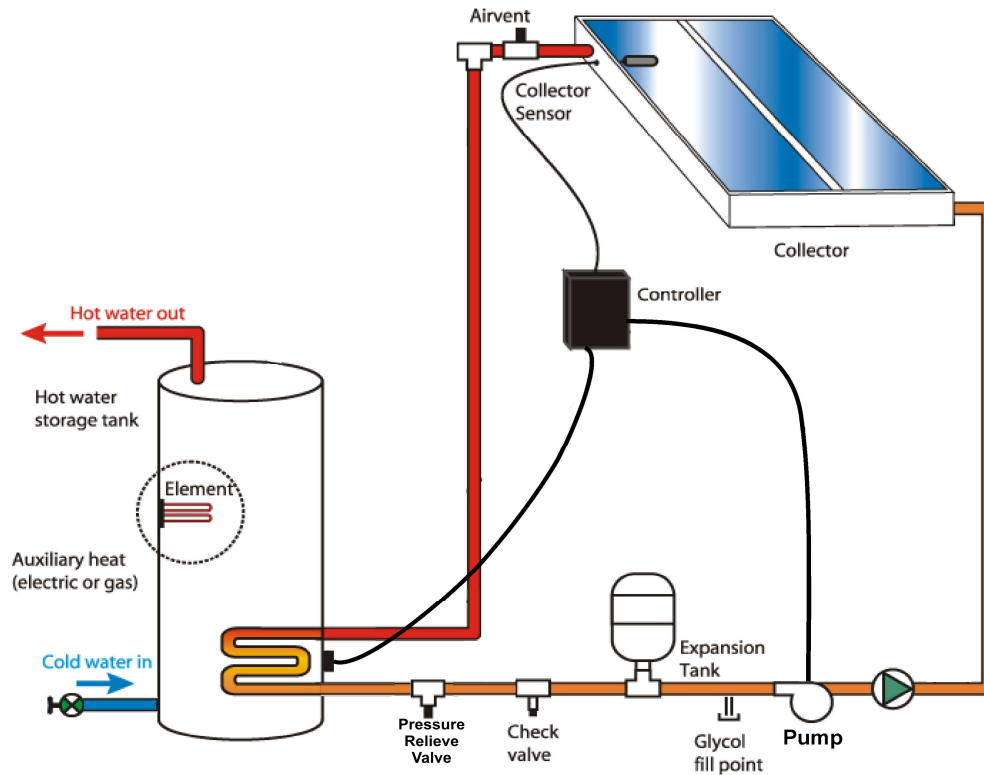
South Ontario's longest operating solar company. Founded in January 2008, before the Ontario Green Energy Act. Professional engineering company, for solar PV and solar thermal. Well over 500 solar projects across Canada completed. Well over 5,500 kW of implemented grid-connected PV systems, over 6 MW of solar mounting systems, and ST. Manufacturing our own solar mounting system.





Renewable Energy Systems

2. Overview Solar Thermal Systems



www.GreenSunRising.com





Renewable Energy Systems

2. Overview Solar Thermal Systems



www.GreenSunRising.com





Renewable Energy Systems

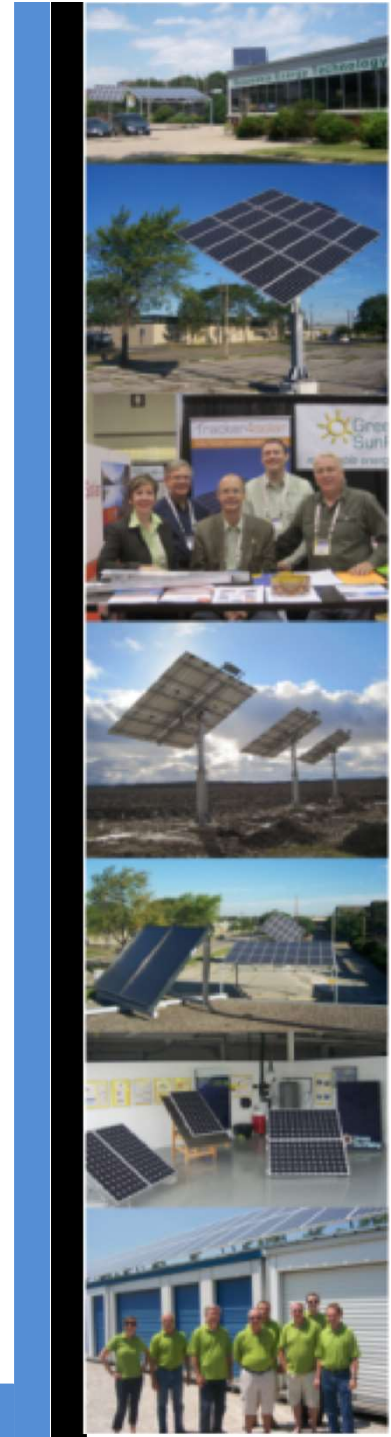
Example solar tank and solar station



www.RET-Center.com



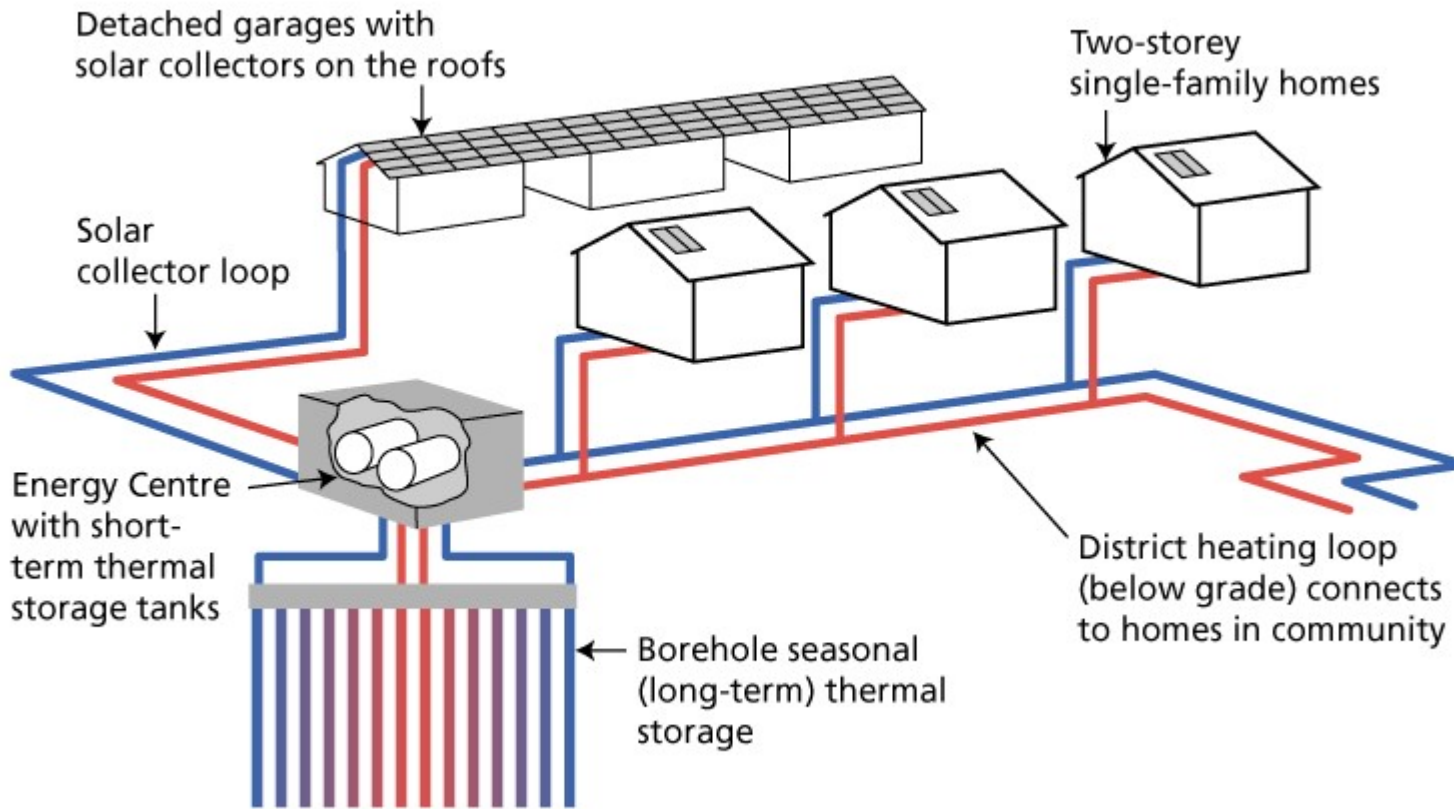
Seasonal Solar Thermal Storage





Renewable Energy Systems

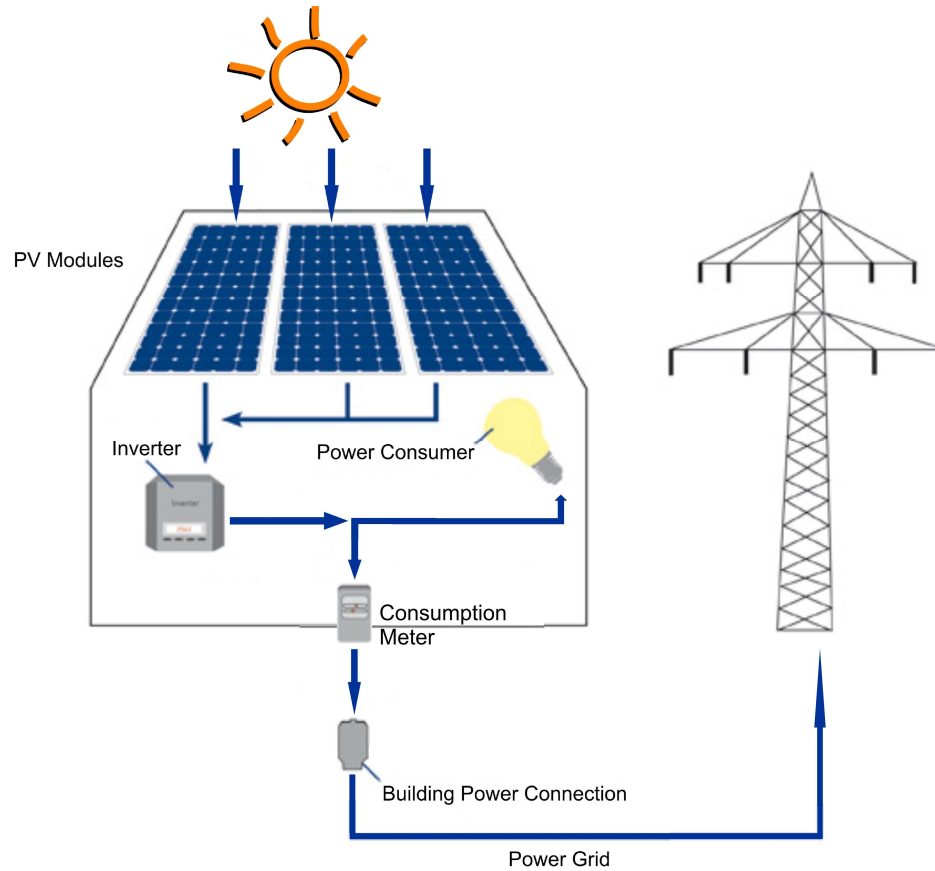
Drake Landing Alberta Solar Thermal Storage



www.RET-Center.com



3. Overview Solar PV Systems



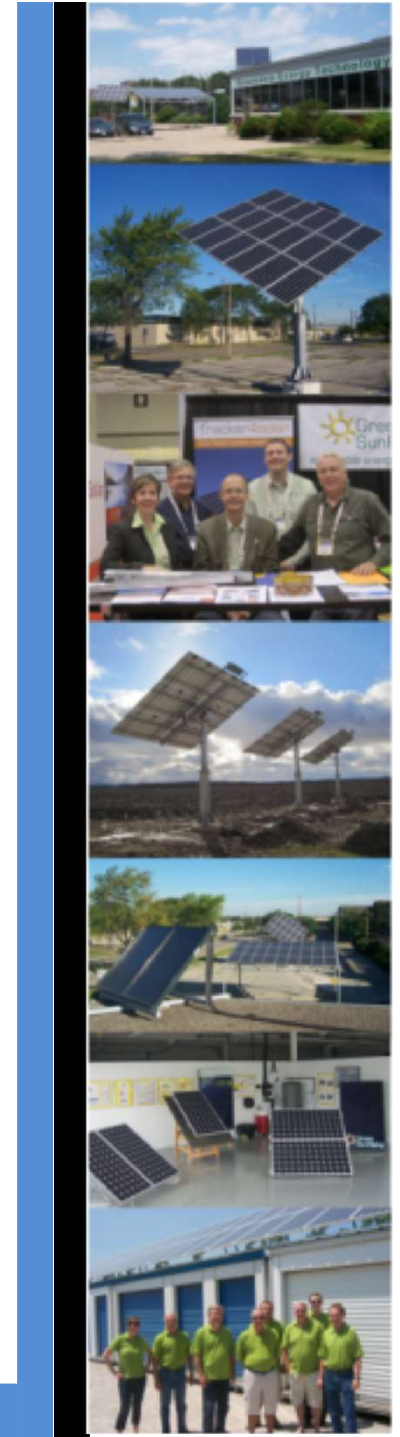


Renewable Energy Systems

3. Overview Solar PV Systems



www.GreenSunRising.com





Renewable Energy Systems

Example 10 kW microFIT PV system on two residential roof sections plus 3kW net-metering PV plus solar thermal



3465 Roxborough Ave in Windsor

www.GreenSunRising.com



4. Overview Solar Projects in the Arctic



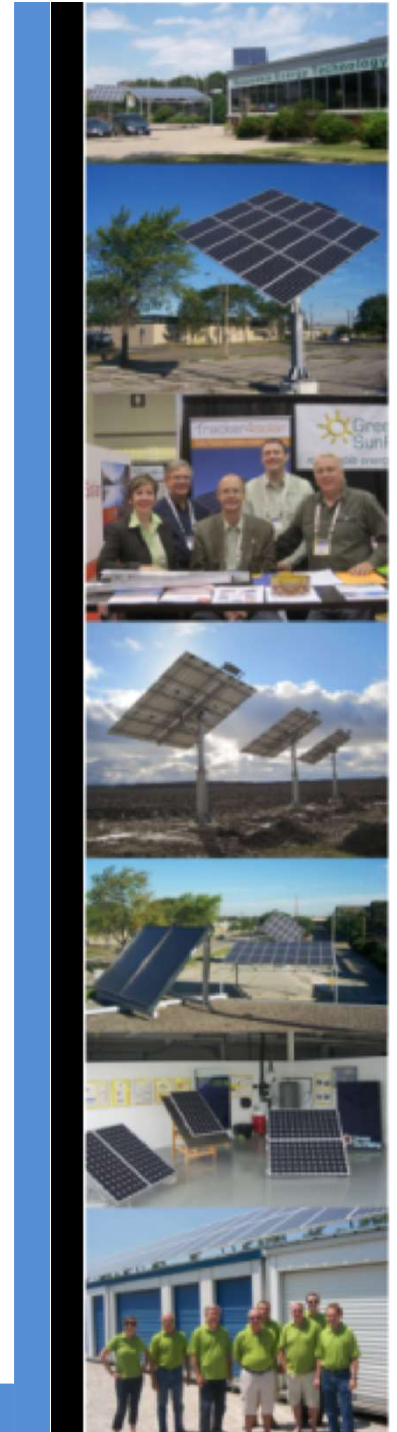


Renewable Energy Systems

5. Overview Solar Projects in the Arctic



www.GreenSunRising.com





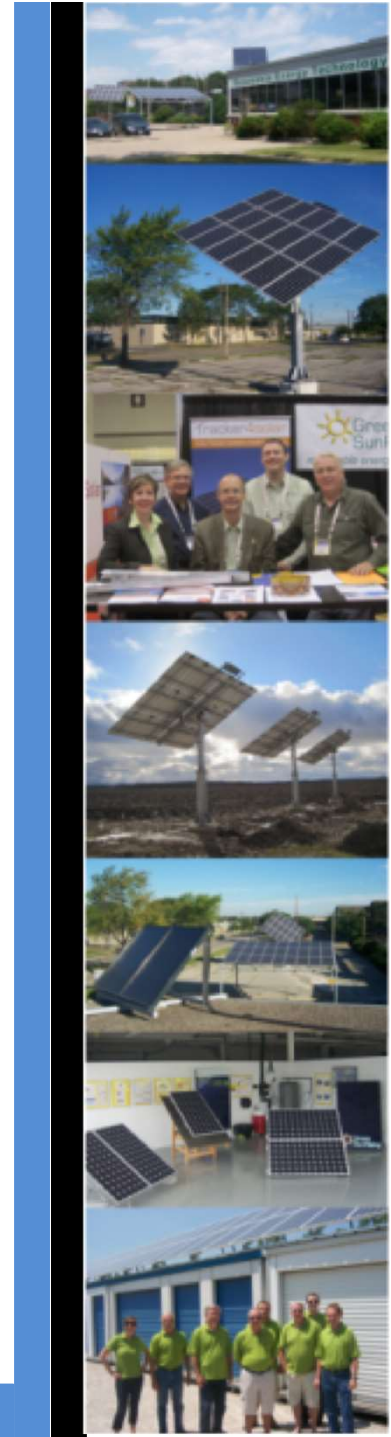
Renewable Energy Systems

5. Overview Solar Projects in the Arctic



Northern-most solar system in North America
Grise Fiord (Ausuittuq/Aᕐᕐᕐᕐᕐᕐ) on Ellesmere Island

www.GreenSunRising.com



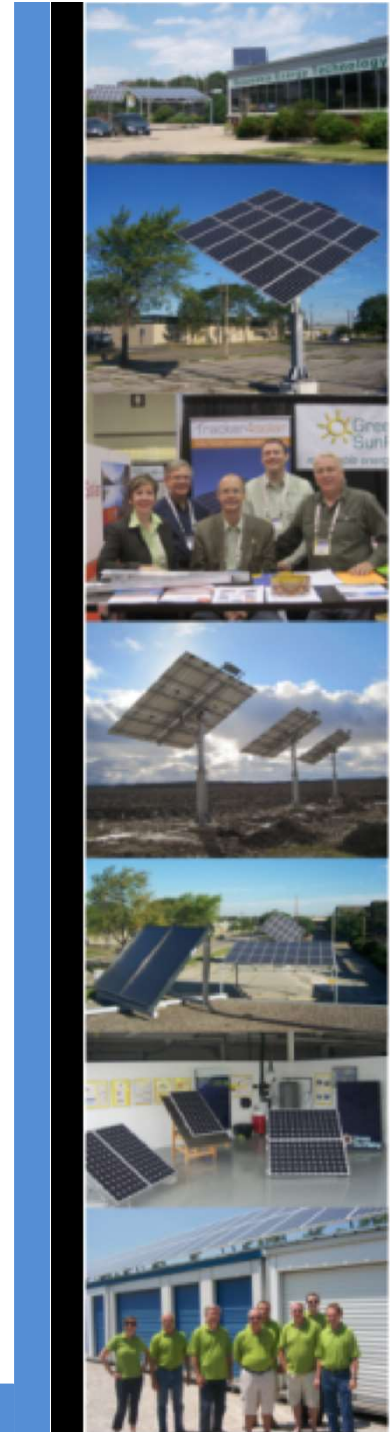


Renewable Energy Systems

5. Overview Solar Projects in the Arctic



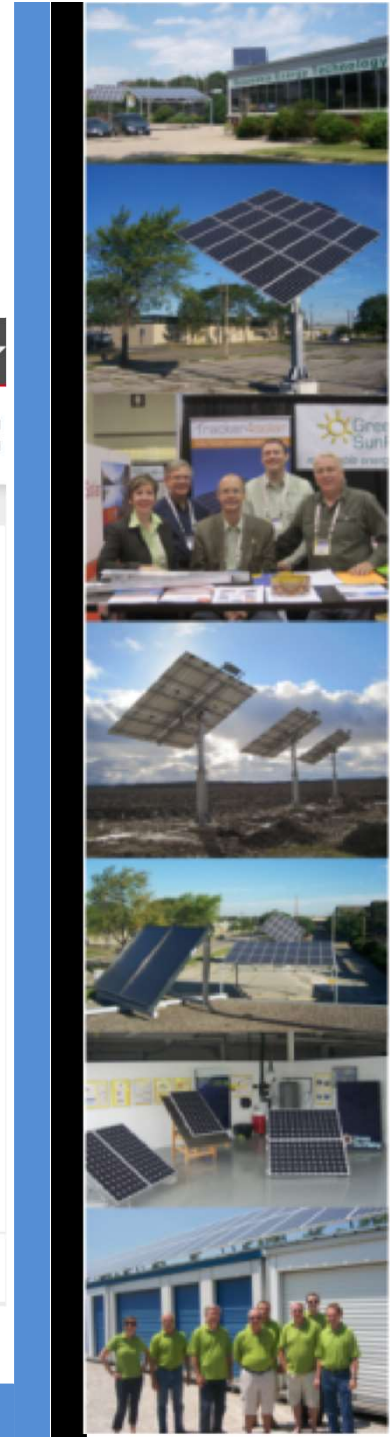
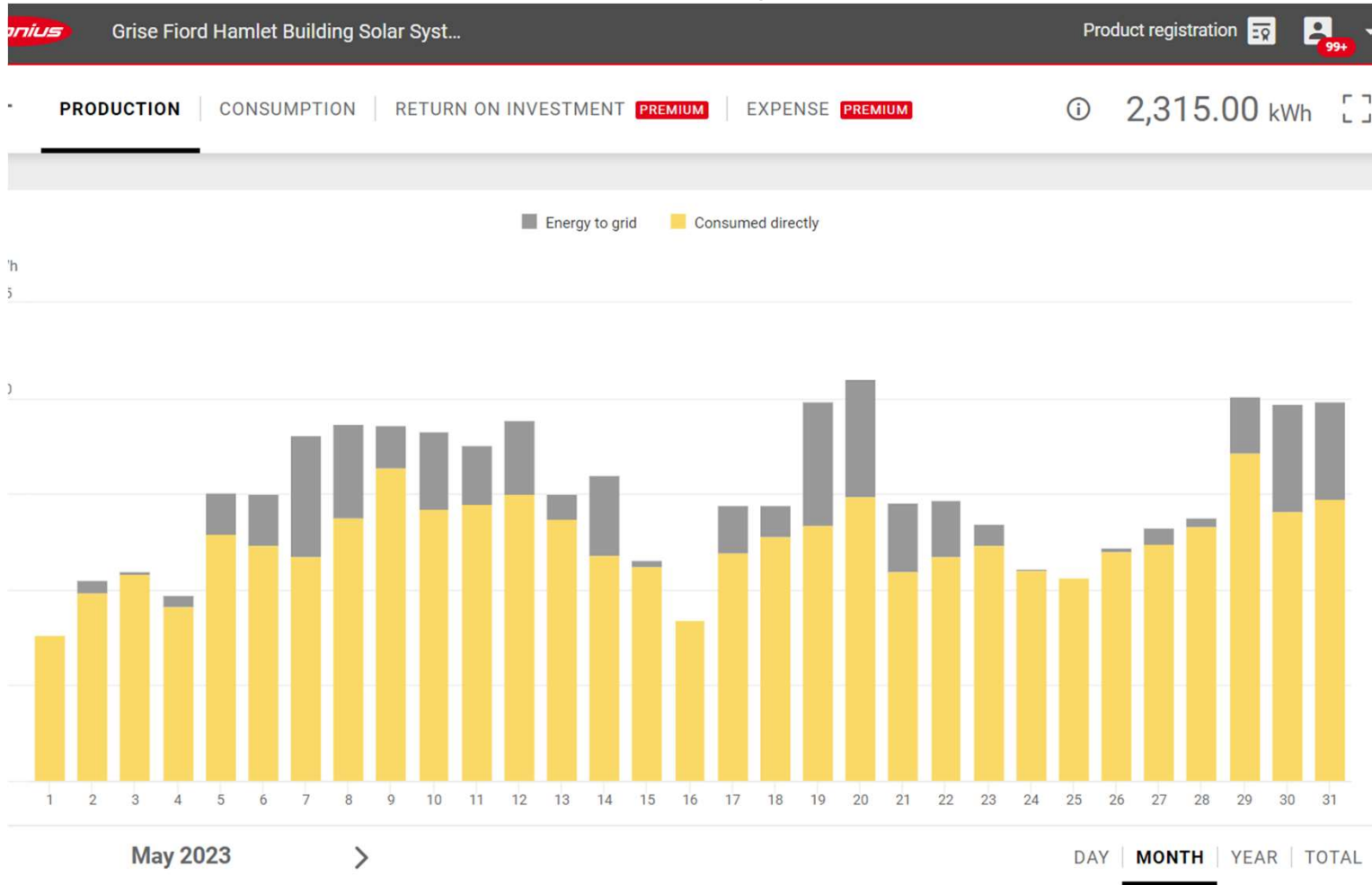
www.GreenSunRising.com





Renewable Energy Systems

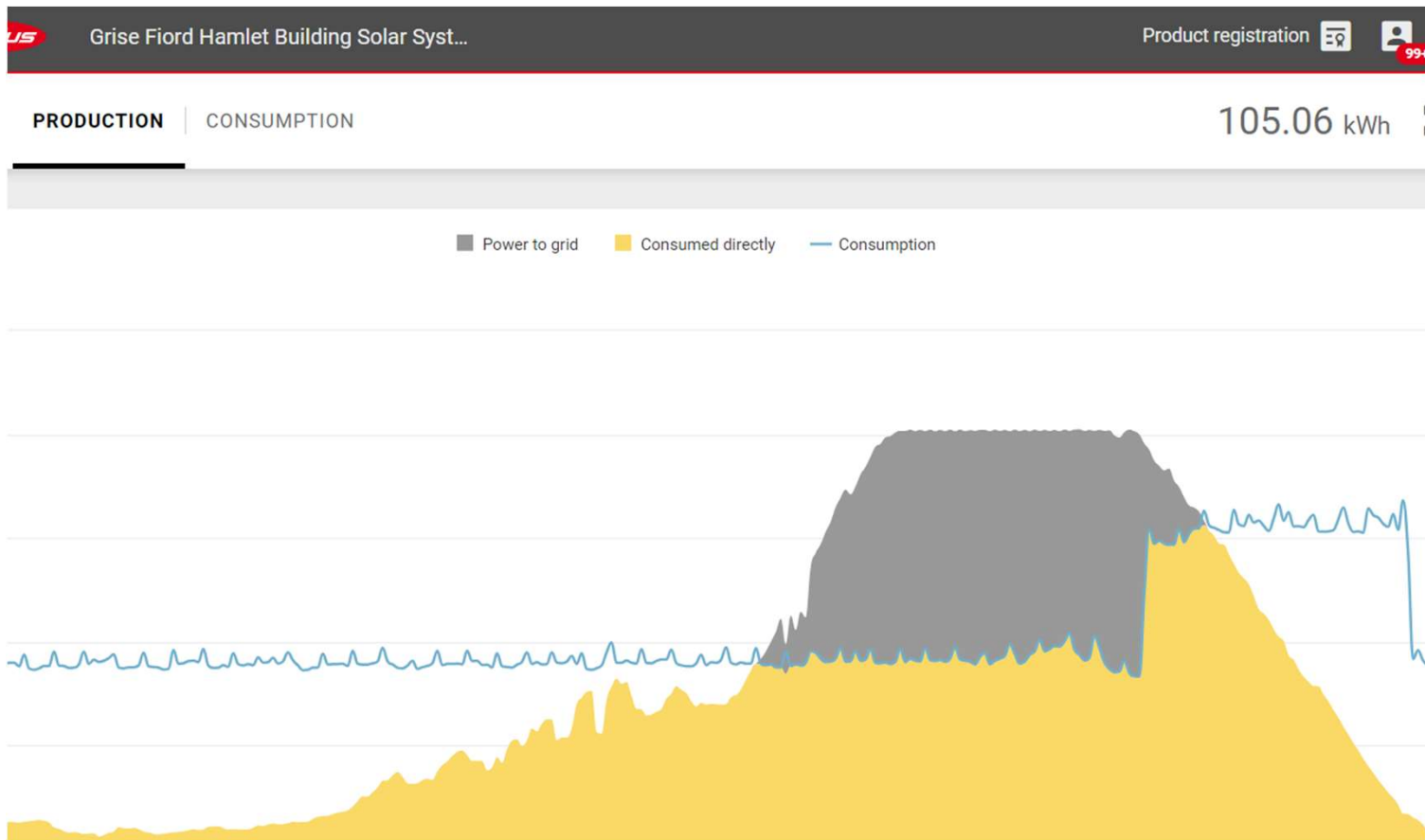
5. Overview Solar Projects in the Arctic





Renewable Energy Systems

5. Overview Solar Projects in the Arctic



www.GreenSunRising.com





Renewable Energy Systems

5. 110kW AC solar system in Rankin Inlet (Kangiqliniq/ᑦᑲᓴᓯᑦᑲᑦᑲᑦ)



126.72 kW DC and 110 kW AC solar PV system

www.GreenSunRising.com





Renewable Energy Systems

5. 110kW solar system in Rankin Inlet (Kangiqliniq/ᑦᑲᑦᑲᑦᑲᑦᑲᑦᑲᑦ)



Rooftop installation with S-5 clamps on standing seam metal roof

www.GreenSunRising.com





Renewable Energy Systems

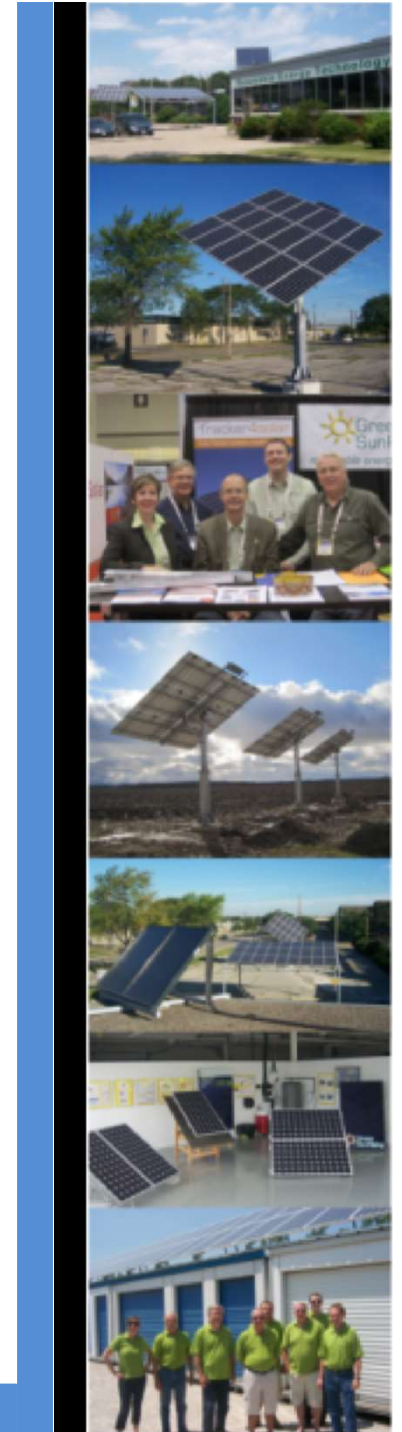
(Kangiqliniq/ᑦᑲᓴᓯᑦᑲᑦᑳᑦ)

5. 110kW solar system in Rankin Inlet



Inverters in electrical room

www.GreenSunRising.com





Renewable Energy Systems

6. Annual Diesel savings through cumulative solar systems in the Arctic

annual summary:

Over 1,301,340 kWh of clean solar PV electricity generated per year

Over 370,800 liter of Diesel saved per year

About 967,400 kg of CO₂ avoided per year.

Community money saved varies per community and rate charged, but is significant.

www.GreenSunRising.com





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7. Nunatsiavut Nain solar system video

www.GreenSunRising.com

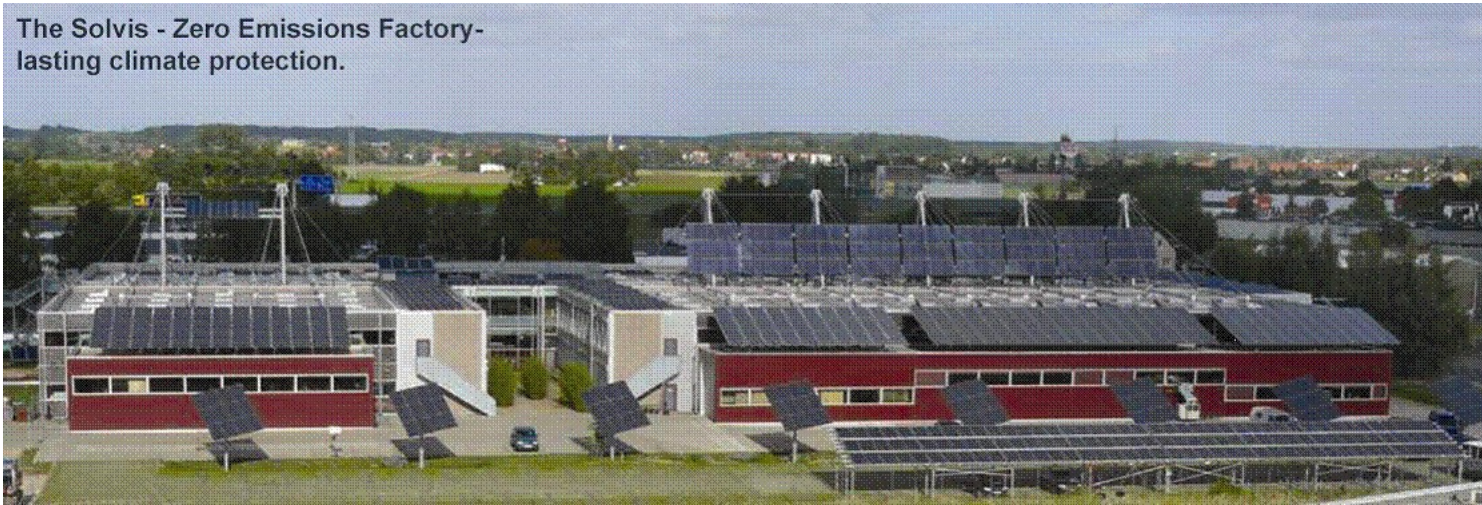




Renewable Energy Technology

8. Questions & Answers

The Solvis - Zero Emissions Factory - lasting climate protection.



RET-Center Windsor
(previous Windsor Tool
& Die Factory)
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www.RET-Center.com
519-946-0408

