

Live Green, Save Green: Taking Action on Energy Efficiency

February 16th , 2017

Chief Aaron Sam, David Isaac



**LOWER NICOLA
INDIAN BAND**



TM



**LOWER NICOLA
INDIAN BAND**



The Community









A landscape photograph featuring a vibrant green field in the foreground, a tall black wind turbine on the left side, and a large green tree on the right. The sky is a deep blue with wispy white clouds. The sun is visible in the center of the sky, creating a bright glow.

What we do:

Community Owned Renewable Energy

Energy Plans

Government & Industry relations

Food Systems

Physical Infrastructure

Some of Our Partners & Collaborators:



ELSE
EMERGING LEADERS FOR SOLAR ENERGY



PacificGreen
Technologies



SolarShip & Canadian Energy

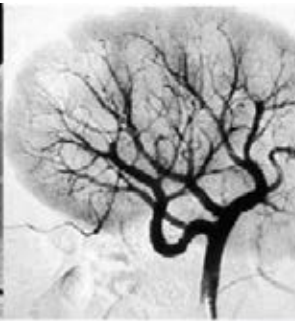
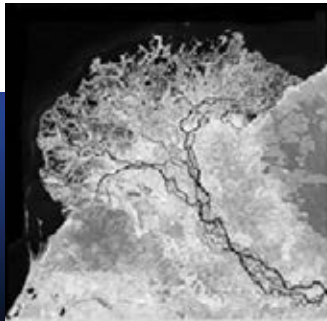


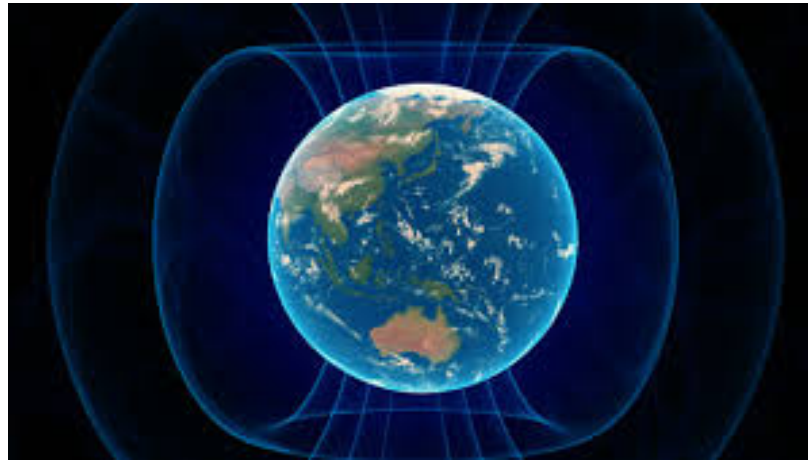
Indigenous WorldView



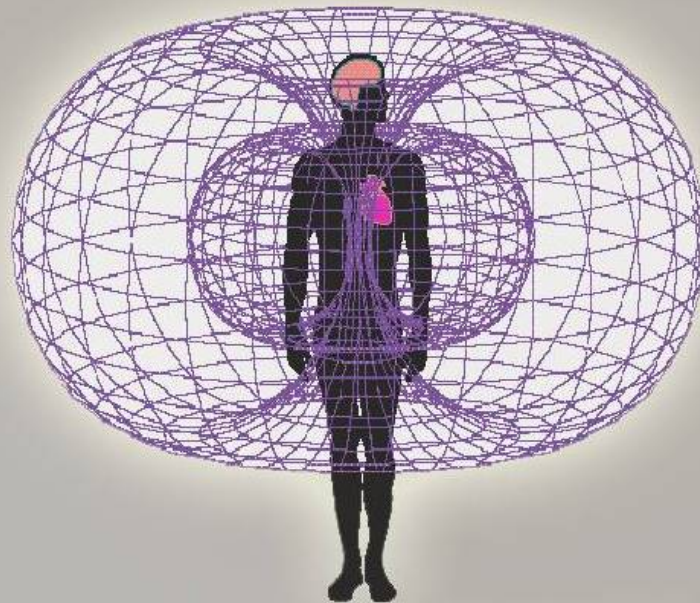
Everything is connected

It is all connected





The electromagnetic field of the heart



“In architecture I strive to elevate the human spirit and bring harmony and balance to our nature and our natural environment”




-Douglas Cardinal,



Emblematic





Renewable
Energy is what is
most abundant in
your backyard-
we are
developing small
hydro, large
wind,
geoexchange,
community solar
and utility large
scale Solar



Towards Independence
Self-Sufficiency
Leadership
Nation Building



Northern Greenhouse



Design 1

Preferences

Saved



Showing Array



Mechanical



Keepouts



Electrical



Advanced

<< back to list



Field Segment 1

Modules: 54 (13.8kWp) (set max kWp)

Area: 1,073.3 ft²

Description: Field Segment 1

Heliene, 60P 255 (255W)

Racking: Flush Mount Racking

Height: 8.2 ft

Azimuth: 177.22 °

Tilt: 22 °

Orientation: Horizontal (Landscape)

Frame Size: 1 up 1 wide

Row Spacing: 0.05 ft

Module Spacing: 0.041 ft

Frame Spacing: 0 ft

Setback: 0.05 ft

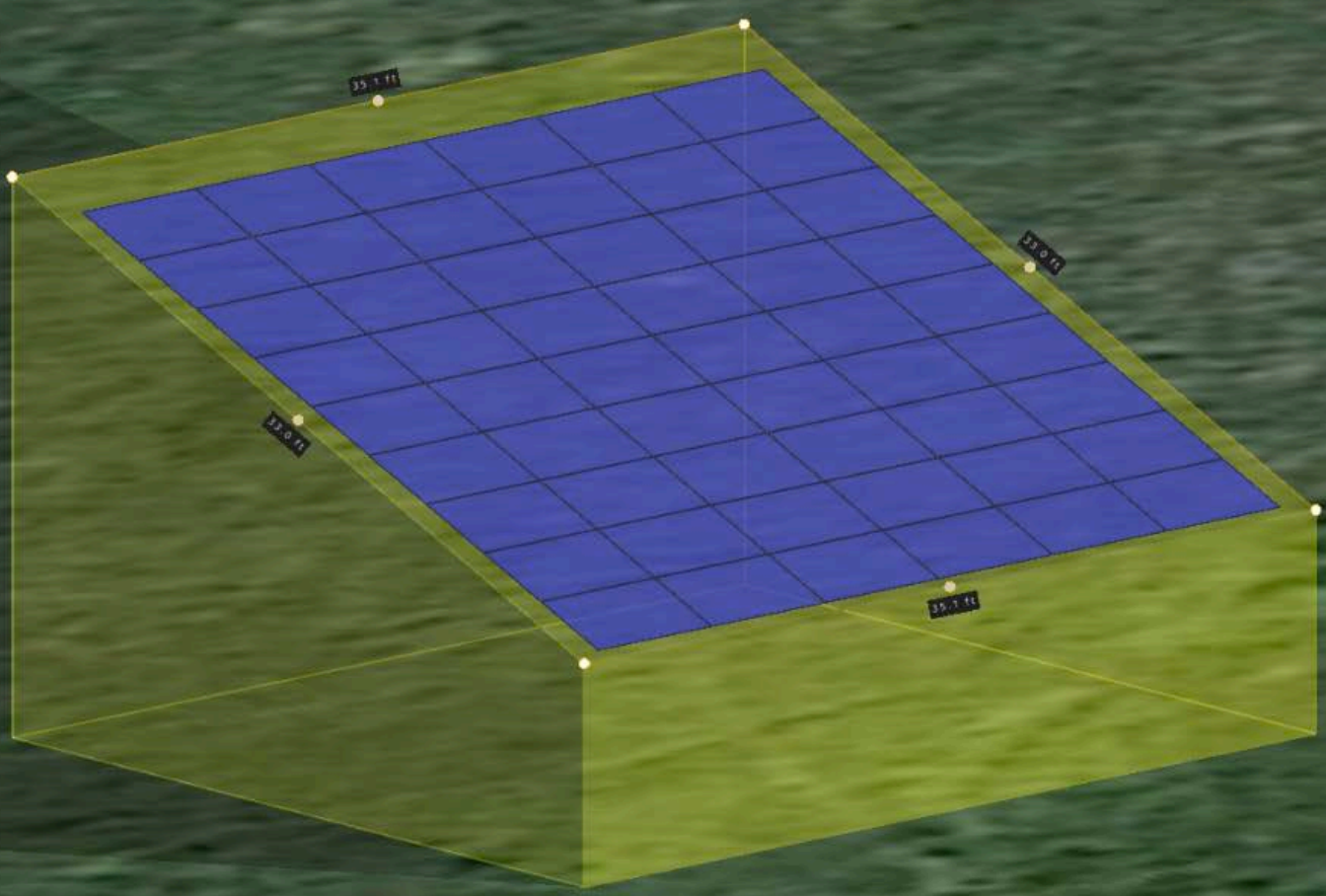
Alignment: [Icons]

Recenter View

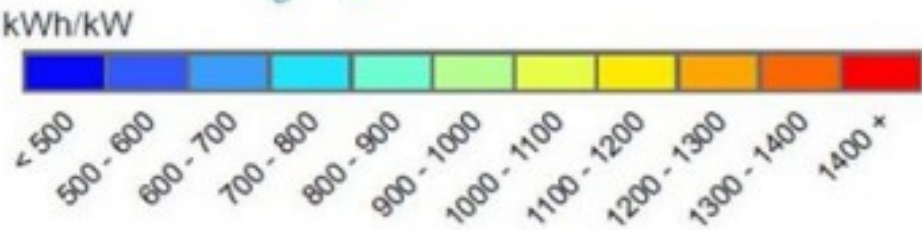
Map

SLD

Google



Solar Energy Map of Canada

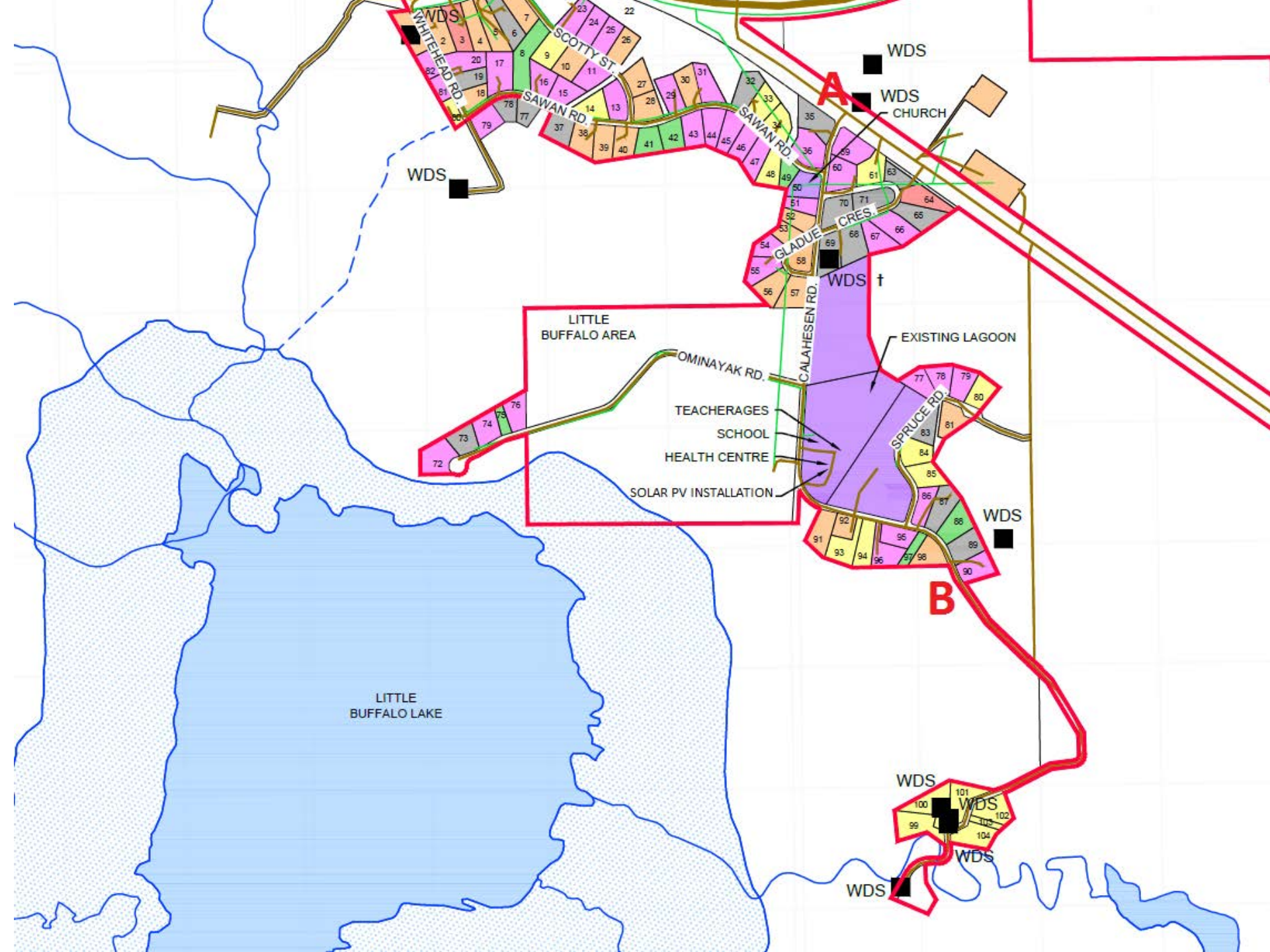


Community Solar: How do we start?

Target Setting

- Start with plans
- Baseline information
- Demand Side-Management
- Efficiency is first Fuel
- BC Hydro Net-Metering



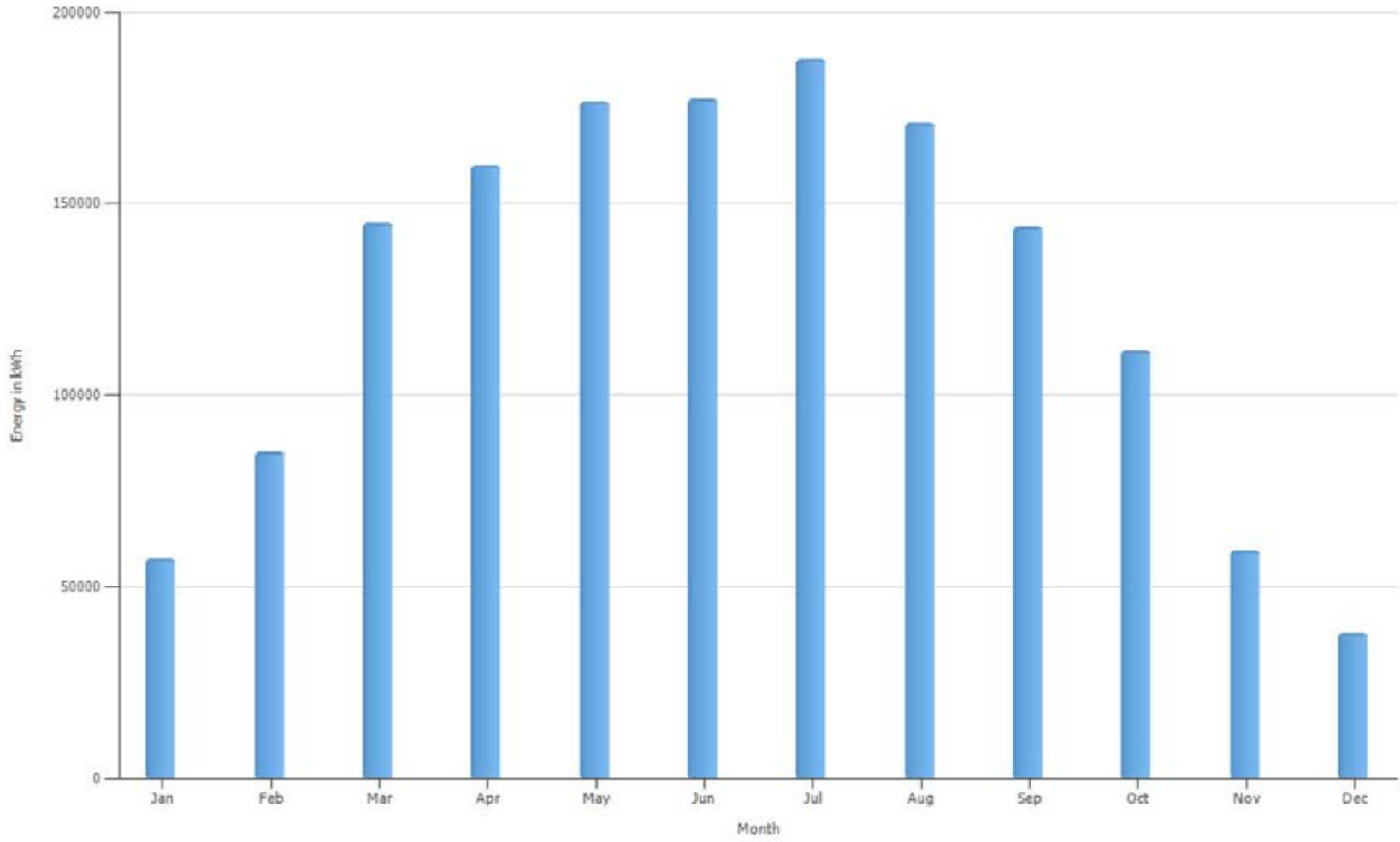


Financial Analysis	
Return on Assets	0.00 %
Total Payment from Utility	0.00 \$/year
Accrued Cash Flow (Cash Balance)	-1,500,720.00 \$

Tech. Quality of the PV System	
PV Generator Energy (AC grid)	1,503,885 kWh/year
Spec. Annual Yield	1,503.16 kWh/kWp
Performance Ratio (PR)	90.8 %

System integration			
Energy from Grid	145 kWh/year	Grid Feed-in	1,503,885 kWh/year

Production Forecast



PV Generator Energy (AC grid)

Design 1 Central Saanich Cultural Centre, 1209 Clarke Road, Brentwood Bay, BC

Shading Heatmap



Community Solar: How does it look?

3 major Types or design formats:

- Rooftop
- Ground mount
- Top-of Pole Mount

Piitapan 20.8 kW Top-of-Pole









Tsleil-Waututh First Nation 10 kW Solar Tracker

Roof mount- flush



Roof mount- flush





Ground Mount





For Generations



SINCE 2009,
THE COST OF
SOLAR ELECTRICITY
HAS DECREASED BY
65% IN CANADA





VCG-GETTY IMAGES

FORTUNE

LIKE

ENERGY

This Just Became the World's Cheapest Form of Electricity Out of Nowhere

And there's one country that can claim a huge share of the credit for it.

BY JOSEPH HINCKS
DECEMBER 15, 2016





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85.8 KW

110 MWh

330 panels





W. OUSK GROUP
 Generating Electrons & Ideas

In Focus
 Community & Environment

ESL Engineering & Services Ltd.
 www.eslgrouping.com

...rial, technical, mechanical, electrical, and safety for...
 ...training...
 ...signing authority...
 ...our responsible...
 ...it is awarded...
 ...we also dedicated...
 ...the project...
 ...the transparency...

VISIUM









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Lower Nicola Indian Band installs largest community-owned solar panel system in B.C.



Photo: Farhan Umedaly, VoVo Productions







Haida Gwaii- Skidegate 100 kW Solar PV Project



1

2

3

4

Kay Centre Rd

Image © 2016 DigitalGlobe

Google earth

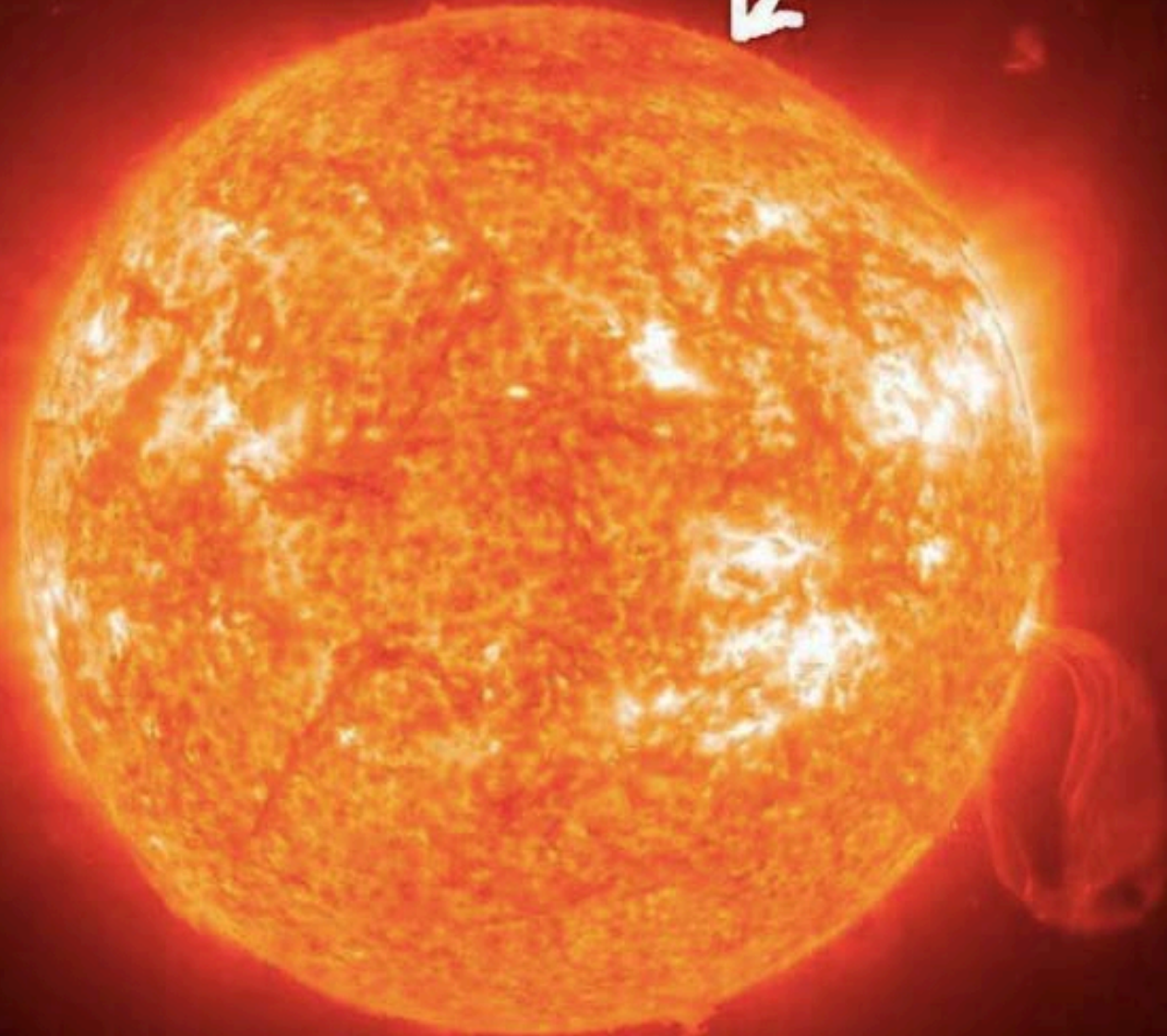
2004

Imagery Date: 6/14/2013 53°14'55.03" N 131°59'51.99" W elev 29 ft eye alt 741 ft

Plug & Play Micro-Grids



Explain to me how THIS



will NOT be able to power THIS



“Study nature, love nature, stay close to nature. It will never fail you.”

- Frank Lloyd Wright

Thank you!

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