Education and Community Power: Long Lake PS area Residents supporting our school

THE ONTARIO TRILLIUM FOUNDATION

LA FONDATION TRILLIUM DE L'ONTARIO

Craig Jackson

Coordinator, Community Power Services Group

Ontario Sustainable Energy Association

Ontario Sustainable Energy Association


Photo: PostCarbonCities.net

The arc from south

Map of Georgina Island
showing turbine placement

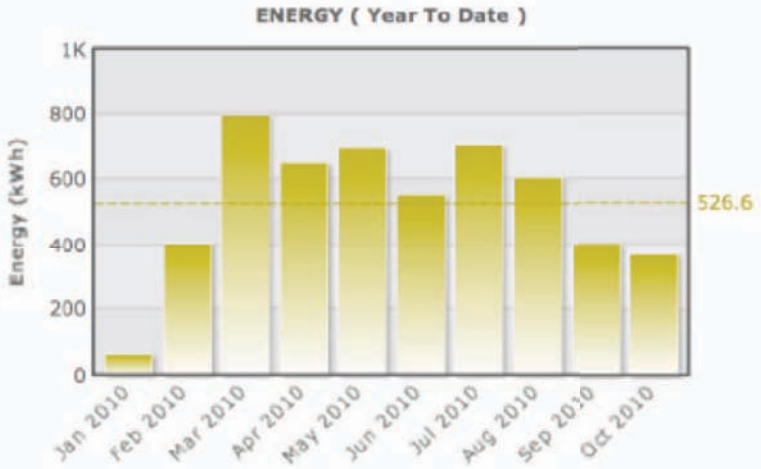
Greater Sudbury Hydro Inc/
Hydro du Grand Sudbury Inc

SolarVu™ ENERGY PORTAL

SITE | LIVE | ANALYZER | SETUP | LEARNING | HOME

Sudbury Hydro - St. Andrews United Church, Coniston, ON

Both HELP



4.8 kW

POWER NOW	3,240	Watts
REVENUE TODAY	$4.35	CAD
LIFETIME ENERGY	5,265	kWh
TOTAL REVENUE	$4,212.03	CAD

SYSTEM OK Listen

Last Updated: Oct 18, 2010, Mon 10:53 AM (GMT -5:00)

>1Y | 12M | YTD | 30D | 7D | 3D | 24H | Revenue

REVENUE	CAD $4,212.26	Year To Date
ENERGY	5,265 kWh	
SAVED	543 Liters Of Gasoline	

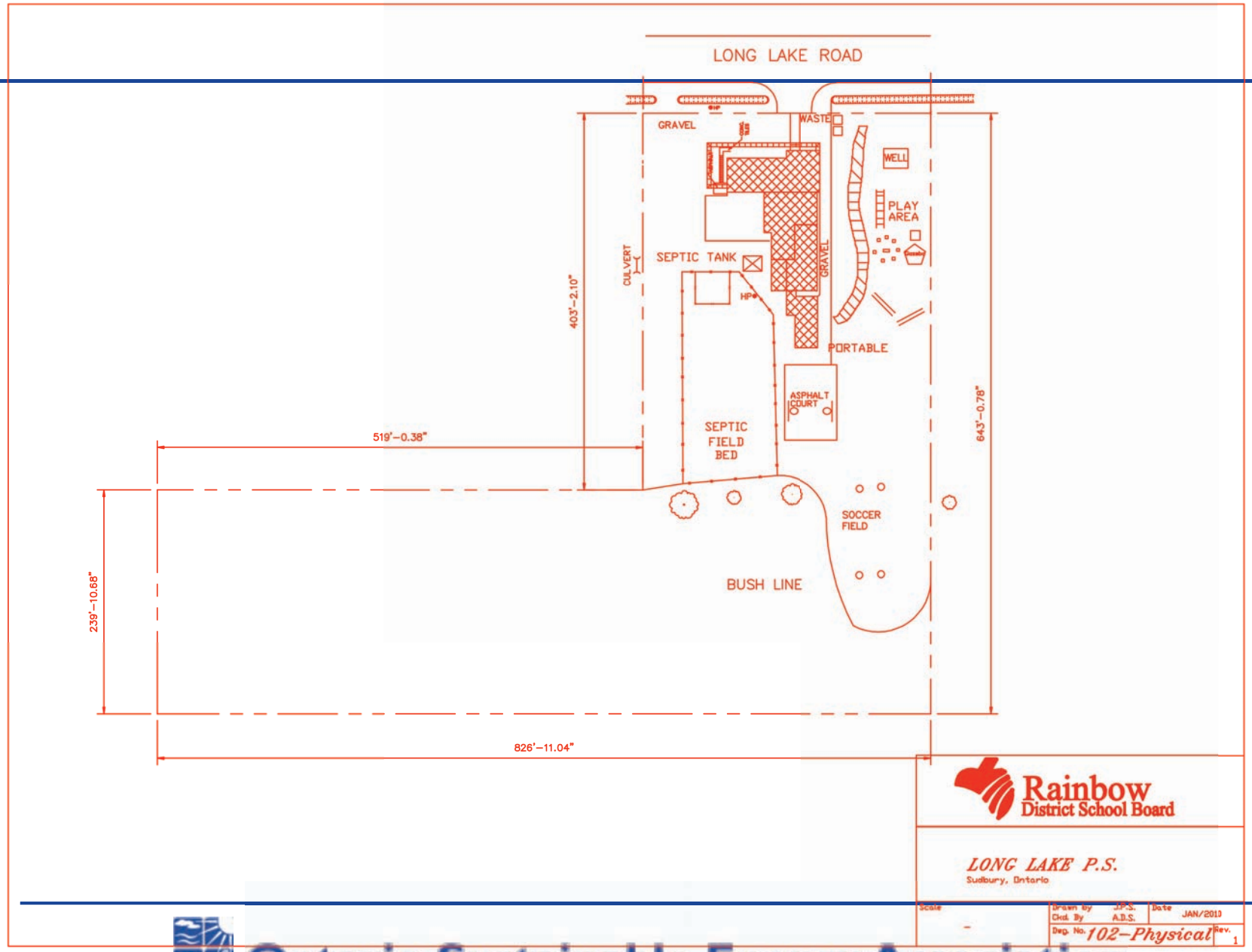
RUMBLE ENERGY

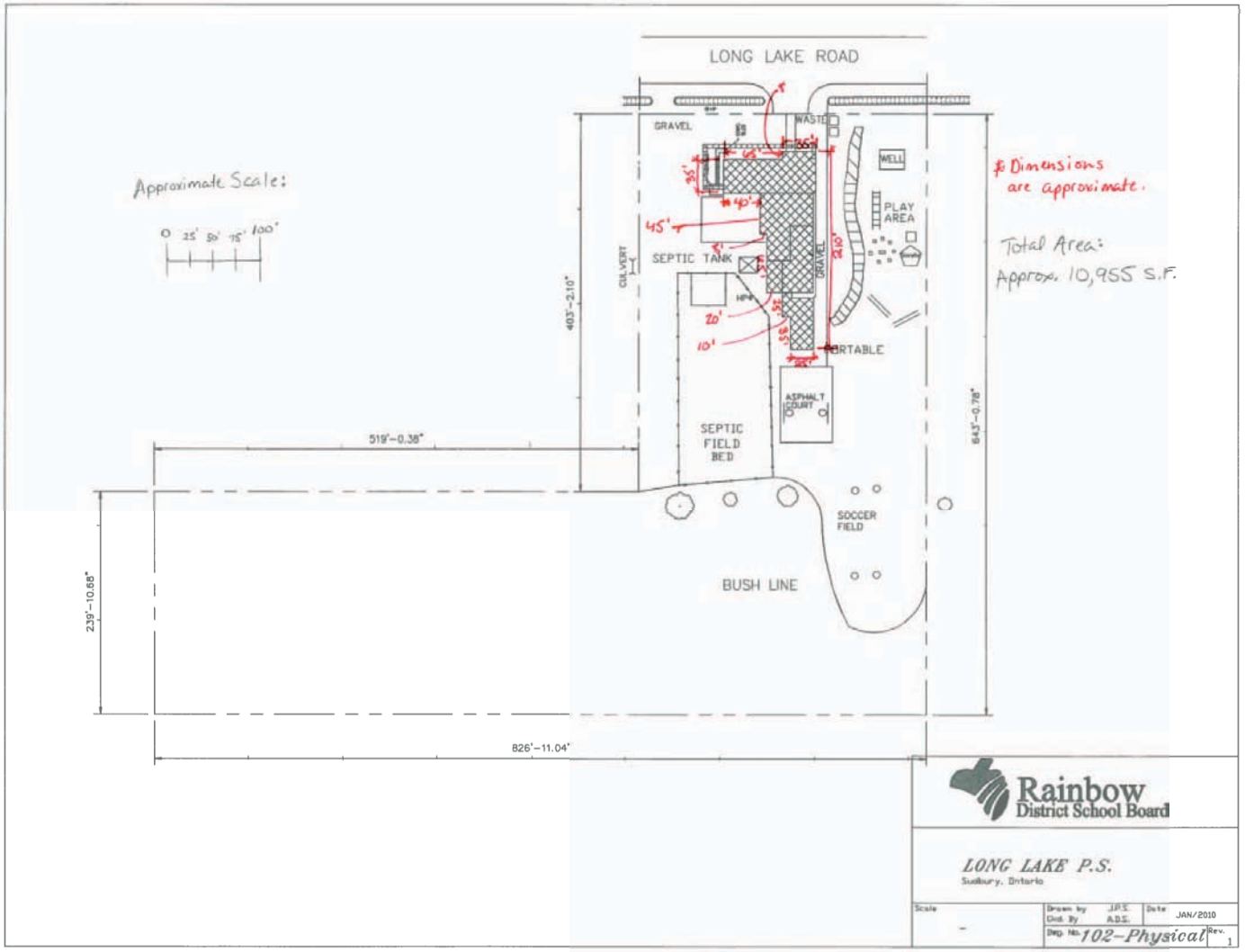
Views: 2855

Powered By Cachelan SolarVu


FIRST
St. Andrew's
United Church
Make This Your
Church Home

Renewable Fuel	Size tranches	Contract Price ¢/kWh	Escalation Percentage[4]
Biomass[1,2]			
	≤ 10 MW	13.8	20%
	> 10 MW	13.0	20%
Biogas[1,2]			
On-Farm	≤ 100 kW	19.5	20%
On-Farm	> 100 kW ≤ 250 kW	18.5	20%
Biogas	≤ 500 kW	16.0	20%
Biogas	>500 kW ≤ 10 MW	14.7	20%
Biogas	> 10 MW	10.4	20%
Waterpower[1,2,3]			
	≤ 10 MW	13.1	20%
	> 10 MW ≤ 50 MW	12.2	20%
Landfill gas[1,2]			
	≤ 10MW	11.1	20%
	> 10 MW	10.3	20%
Solar PV			
Any type	≤10 kW	80.2	0%
Rooftop	> 10 ≤ 250 kW	71.3	0%
Rooftop	> 250 ≤ 500 kW	63.5	0%
Rooftop	> 500 kW	53.9	0%
Ground Mounted[2]	≤ 10 MW	44.3	0%
Wind[2]			
Onshore	Any size	13.5	20%
Offshore	Any size	19.0	20%


LONG LAKE ROAD
GRAVEL
WASTE
WELL
PLAY AREA
SEPTIC TANK
CULVERT
GRAVEL
403'-2.10"
PORTABLE
ASPHALT COURT
643'-0.78"
519'-0.38"
SEPTIC FIELD BED
SOCCER FIELD
BUSH LINE
239'-10.68"
826'-11.04"
Rainbow District School Board
LONG LAKE P.S.
Sudbury, Ontario
Scale -
Drawn By J.P.S.
Chkd. By A.D.S.
Date JAN/2010
Dwg. No. 102-Physical
Rev. 1


LONG LAKE ROAD
GRAVEL
WASTE
WELL
PLAY AREA
SEPTIC TANK
GRAVEL
CULVERT
HPK
PORTABLE
ASPHALT COURT
SEPTIC FIELD BED
SOCCER FIELD
BUSH LINE
Approximate Scale:
0 25' 50' 75' 100'
* Dimensions are approximate.
Total Area:
Approx. 10,955 S.F.
519'-0.38"
239'-10.68"
826'-11.04"
403'-2.10"
643'-0.78"
45'
40'
20'
10'
Rainbow District School Board
LONG LAKE P.S.
Sudbury, Ontario
Scale
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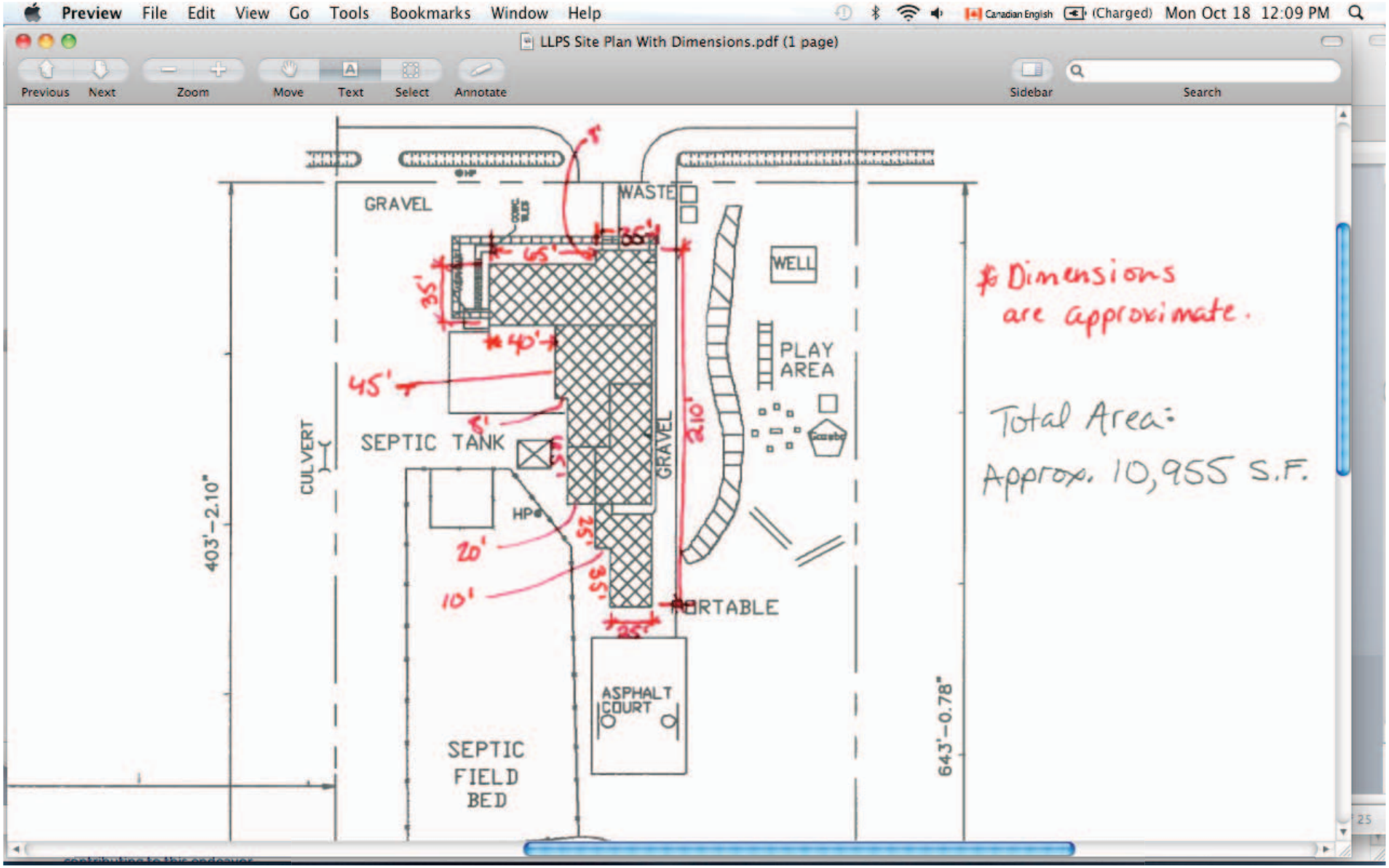
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Canadian English (Charged) Mon Oct 18 12:09 PM
LLPS Site Plan With Dimensions.pdf (1 page)
Previous Next Zoom Move Text Select Annotate Sidebar Search
GRAVEL
WASTE
WELL
PLAY AREA
SEPTIC TANK
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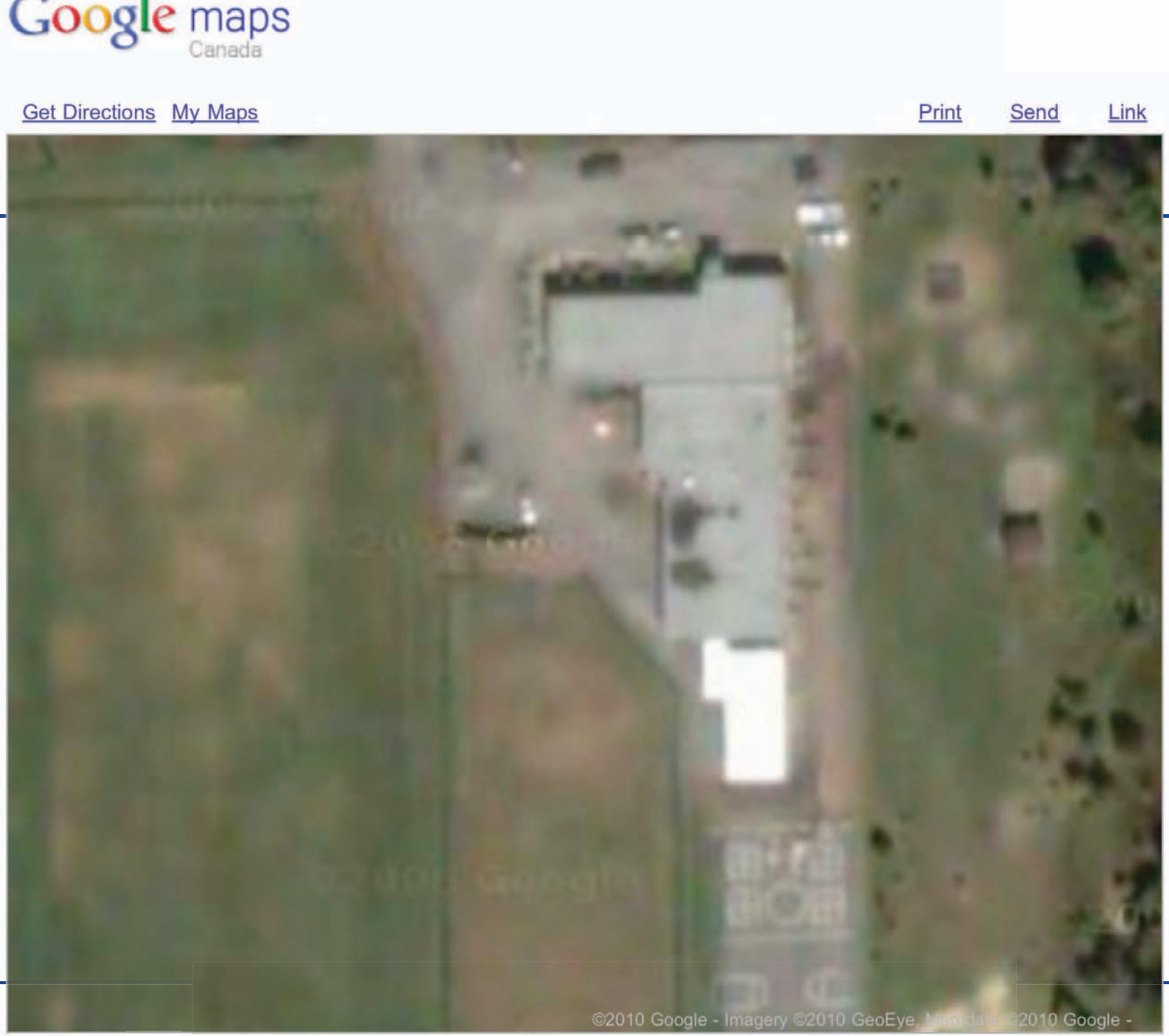

To see all the details that are visible on the screen, use the "Print" link next to the map.

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Canada

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Download Free

The **RETScreen Clean Energy Project Analysis Software** is a unique decision support tool developed with the contribution of numerous experts from government, industry, and academia. The software, provided free-of-charge, can be used worldwide to evaluate the energy production and savings, costs, emission reductions, financial viability and risk for various types of Renewable-energy and Energy-efficient Technologies (RETs). The software (available in multiple languages) also includes product, project, hydrology and climate databases, a detailed user manual, and a case study based college/university-level training course, including an engineering e-textbook.

Click here to download RETScreen 4 (44 MB).

Software & Data Requirements: Microsoft® Excel 2000 or higher; Microsoft® Windows 2000 or higher; and Microsoft .NET Framework 2.0 or higher. Please make sure that the latest updates from Microsoft (www.microsoft.com), for Windows and Excel are installed on your computer.

Webcasts

RETScreen video (2:02 minutes)

RETScreen - Introduction (33:23 minutes)

RETScreen - Energy Efficiency (27:16 minutes)

RETScreen - Heating / Cooling (69:53 minutes)

RETScreen - Power (53:04 minutes)

RETScreen - Combined Heat & Power (23:59 minutes)

Date Modified: 2010-09-24

Proposed case power system

				Incremental initial costs	
Technology		Photovoltaic			
Analysis type		Method 1 Method 2			
Photovoltaic					
Power capacity	kW	47.08			See product database
Manufacturer		Evergreen Solar			
Model		poly-Si - ES-240	214 unit(s)		
Capacity factor	%	14.0%			
Electricity exported to grid	MWh	57.7			
Electricity export rate	$/MWh	712.00			

Emission Analysis

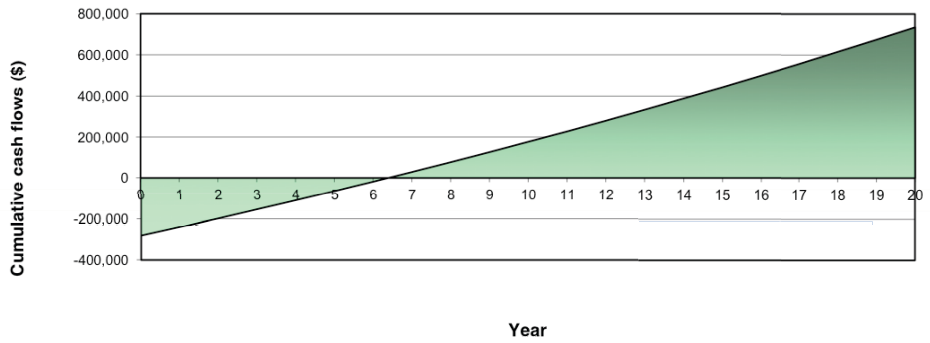
Base case electricity system (Baseline) Country - region	Fuel type	GHG emission factor (excl. T&D) tCO2/MWh	T&D losses %	GHG emission factor tCO2/MWh
Canada	All types			0.000
Electricity exported to grid	MWh	58	T&D losses	

GHG emission					
Base case	tCO2	0.0			
Proposed case	tCO2	0.0			
Gross annual GHG emission reduction	tCO2	0.0			
GHG credits transaction fee	%				
Net annual GHG emission reduction	tCO2	0.0	is equivalent to	0.0	Cars & light trucks not used
GHG reduction income					
GHG reduction credit rate	$/tCO2				

Financial Analysis

Financial parameters			
Inflation rate	%	2.0%	
Project life	yr	20	
Debt ratio	%		
Initial costs			
Power system	$	0	0.0%
Other	$	282,480	100.0%
Total initial costs	$	282,480	100.0%
Incentives and grants	$		0.0%
Annual costs and debt payments			
O&M (savings) costs	$		
Fuel cost - proposed case	$	0	
	$		
Total annual costs	$	0	
Annual savings and income			
Fuel cost - base case	$	0	
Electricity export income	$	41,110	
	$		
Total annual savings and income	$	41,110	
Financial viability			
Pre-tax IRR - assets	%	15.6%	
Simple payback	yr	6.9	
Equity payback	yr	6.4	

Cumulative cash flows graph



Community Power Price Bonus

Renewable Fuel	Wind	PV (Ground Mounted)	Water	Biogas	Biomass	Landfill Gas
Maximum Aboriginal Price Adder (¢/kWh)	1.5	1.5	0.9	0.6	0.6	0.6
Maximum Community Price Adder (¢/kWh)	1.0	1.0	0.6	0.4	0.4	0.4

“The Grand Erie District school Board will give students a real-life lesson in green energy, and conservation with the installation of solar panels on the roof tops of 23 of its schools.”

“Partnership between the School Board and energy service company”

“There is no cost to the school board”

http://www.theexpositor.com/ArticleDisplay.aspx?e=2614214

COMMUNITY power2010

We need to do this for our children!

www.ontario-sea.org
www.cpconference.ca

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Ontario Sustainable Energy Association