

Solar Assessment Results

For: Date: April 28 2016

Contact name/Address:

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Site Description:

Solar Roof Dimensions: Multiple

Slope: Unknown Direction:S/W Material: Flat Access: Unknown

Solar Exposure: Excellent Electrical Panel Size: 200Amp

Proposed Solar Options:

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	System Description	Estimated Cost (taxes not incl.)	Annual Generation (estimated, unshaded)		
	6 Panels 1.6kW	\$8,000.00	1716 kWh		
	10 Panels 2.6kW	\$12,000.00	2860 kWh		

Please note that this is a preliminary assessment using estimated roof measurements taken from satellite imaging. System design and estimated pricing are subject to change and don't include ferry or travel costs. Estimated Cost: PTTP will confirm costs after the site visit finalizes the system size and electrical connection issues. Note PTTP Sustainable Electrical Services are PST exempt. Estimated Generation: Assumes no shading during the day.



Assessment Summary:

The building at 936 Tattersall Drive has a multiple slopes available for the installation of solar modules. Although there are no apparent shading issues, this can not be confirmed without a site visit. Overall the house looks like an ideal candidate for solar electricity. There are a few vents but our system design has incorporated adequate spacing to avoid these. We have offered a range of systems, all of which fit into the roof dimensions.

The systems offered could displace about 1100 kilowatts of power for each kilowatt installed per year. For example the 4kW array on an unshaded roof could produce about 4400 kilowatt hours per year, and has a 25 year power output warranty on both the solar panel, and the power electronics.

You can check your BC Hydro bills online and see how many kilowatt-hours of electricity you use annually. If your consumption fits the BC average of 10,000 kWh per year, then the 5kW array could displace 44 % of your annual electricity purchases.

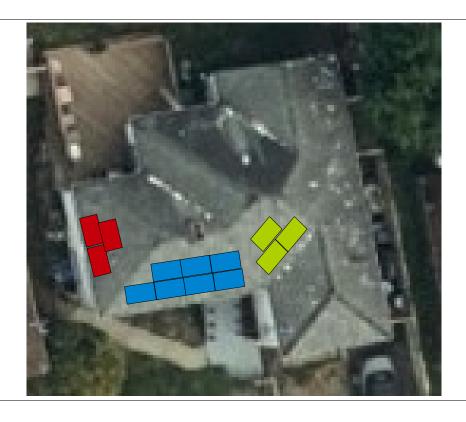
Our solar electric system would include:

- Quality solar panels with a 25 year warranty
- Power electronics with a range warranty options
- Complete installation
- Electrical permit
- All BC Hydro application paperwork
- Solar system monitoring package
- Comprehensive System warranty



System Monitoring Screenshot





Proposed Estimated Solar Layouts at 936 Tattersall Drive	Total: 13 Panels
South 7 Panels Landscape (Blue)	
SE 3 Panels Landscape (Orange)	
West 3 Panels Landscape (Red)	

What this Solar System will do for you:

- Reduce your home operating costs for the next 30+ years
- Displace BC Hydro purchases with solar energy
- Lets you use solar electricity first, and you will only purchase power from BC Hydro when solar is not enough
- Connects you to BC Hydro's Net Metering program to temporarily store solar energy you could not use.
- Enhances the value of your home (due to its lower utility costs)



About PTTP:

At Power to the People, we specialize in renewable energy systems; specifically in offgrid residential and grid-tied photovoltaic installations. Solar, wind, micro hydro; we've done it. Power To The People is a licensed, bonded and insured Electrical Contractor owned and operated by Michael Geldreich. With over a decade of experience installing solar systems, he is qualified to solve your all of your electrical needs. In good standing with the BC Safety Authority, Power To The People will make sure your installation is done right the first time and most importantly, safe.

Whether your project is conventional, alternative or experimental, we will bring the Power to the People.

Next Steps:

If you would like to proceed with one of these options:

- 1. Arrange a site visit to locate the electrical services and review roof vents and obstructions
- 2. Prepare a sales contract requiring your signature and a down payment on the system price. We are able to accept Visa and MasterCard.
- 3. Within an acceptable schedule to you, PTTP's team will arrive and install the system.
- 4. After the installation is complete and the solar system starts delivering energy, final payment will be due.

Acceptance:				
Name:	Option:			
Signature:	Date:			



Grid-Tied Solar System & Micro Inverter FAQ

1. Will Solar Panels last a long time?

The primary ingredient of a solar cell is silica, which is safe and inert, and comes ultimately from sand. Most PV frames are anodized aluminum, the superstrate is tempered glass and the plastic back sheet comes from the sign industry. They have a 25 year power output warranty. That's why PV technology is so attractive – a long lasting product that converts solar energy to electricity for 30+ years.

2. Are Solar Panels rugged enough to handle hail?

Part of the certification tests are to fire a 1" hailstone at 83kph into the glass. They are also designed to handle snow and winds. They also have a 12 year mechanical warranty to back this up. Panels will be happy and safe on your roof.

3. What if my roof needs changing?

Likely your solar system will outlast your roof. No big deal. The hard part of the project – the electrical wiring, stays in place. Call us and we'll arrange for an installer to shut your system down, take the modules off the roof, and remove the rails. As your roofer changes this shingles, he replaces the mounting feet as he goes along. When its done, the installer returns and reassembles the solar system. Easy as that!

4. How is the solar system monitored?

With each installation, we'll install a monitoring device that communicates with the solar panel electronics. This device, called an Envoy, constantly reads individual panel output. If connected to the internet, the Envoy will relays its data to a special web page that we will build for you. This allows you to log in at anytime and see current and past solar production.

5. What if something goes wrong?

We'll probably know before you will. We will set the system to send out email messages if your system or one of the solar panels stops working. If something is wrong, we will dispatch an installer to check it out and solve the problem. Fortunately, our solar systems are very reliable and problems are rare.

6. Can I expand my system in the future?

No worries. We can expand any system up to 16 panels with the wiring we'll put in place during the initial installation. To expand the system beyond 16 panels, we'll add a second wire run. You can expand at any time. But if you look at adding another kilowatt, it will be easiest and cheapest to do it as part of the initial installation.

7. Can I install it myself?

Yes and no. By code the electrical work must be done by a qualified professional and with a permit. Read: Electrician. The rooftop work could be done by yourself and skilled friends who are rooftop savvy. We also offer complete hardware kits for those with the contractor friends. Or let our installers do it - we'll all be sure it's perfect.