

Sunfind Solar | Newsletter

**Featured
Installation!**



POWERED UP!

What do you get when you combine an innovative Camrose resident with Solar Power?

You get a home owner that generates all of his own energy and a good portion of his own heat, all via the Sun.

With an already efficient mindset, this home owner is now able to generate all his own energy over the course of the year.

Is it Possible to Generate all your own Energy? **YES!**

Through the span of a year, it is economically feasible to generate all of your own energy.

As this graph shows, the Solar PV system works the hardest from the spring to fall.

In the winter, the PV system production drops off sharply, but the over production from the summer makes up for this.

From mid-February to mid-September, the PV system is generating MORE than what the home is using and this energy is SOLD back to the utility at the RETAIL rate (the current rate at which you buy the electricity).

Is Solar an Economical Solution? **YES!**

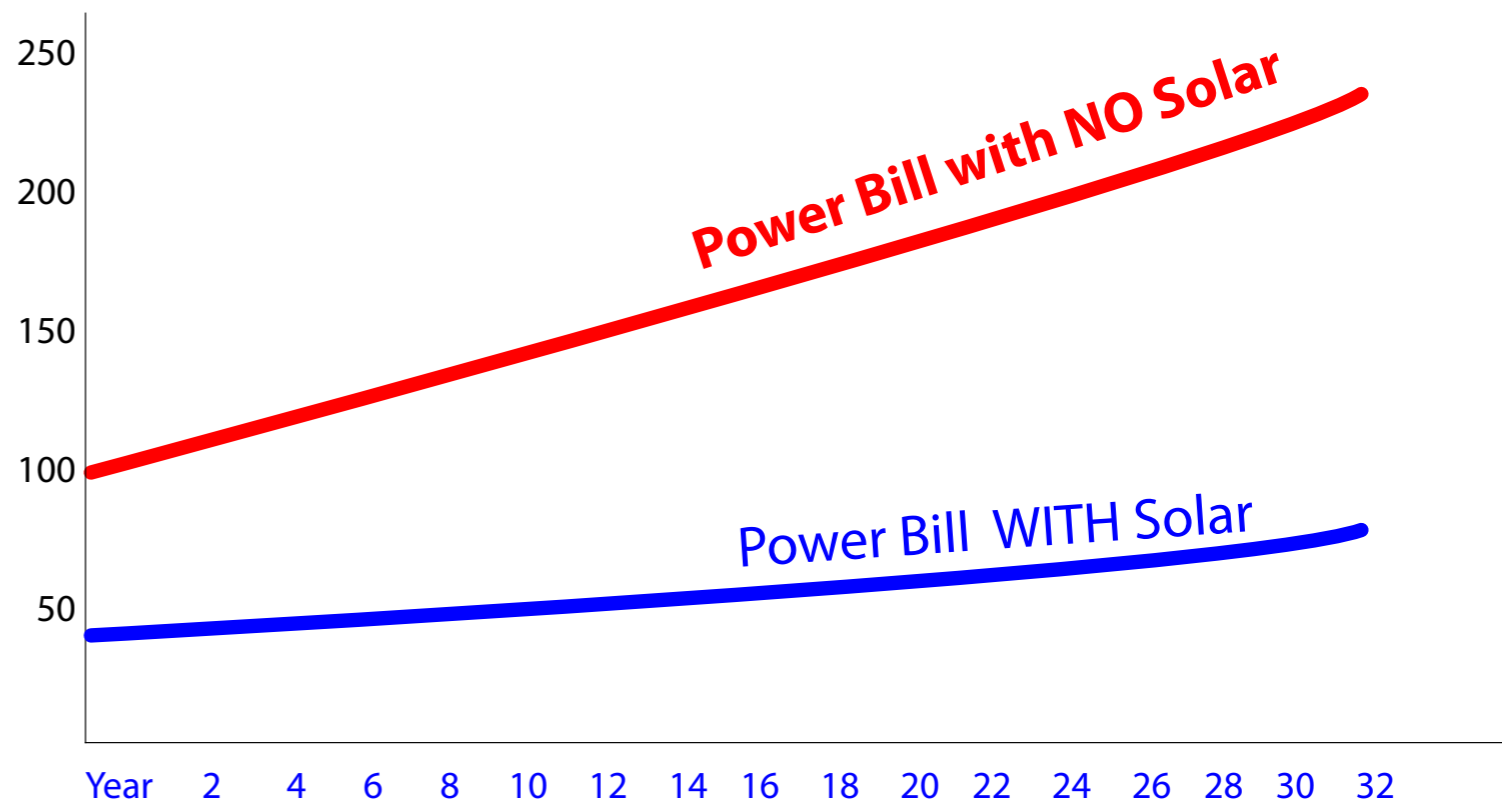
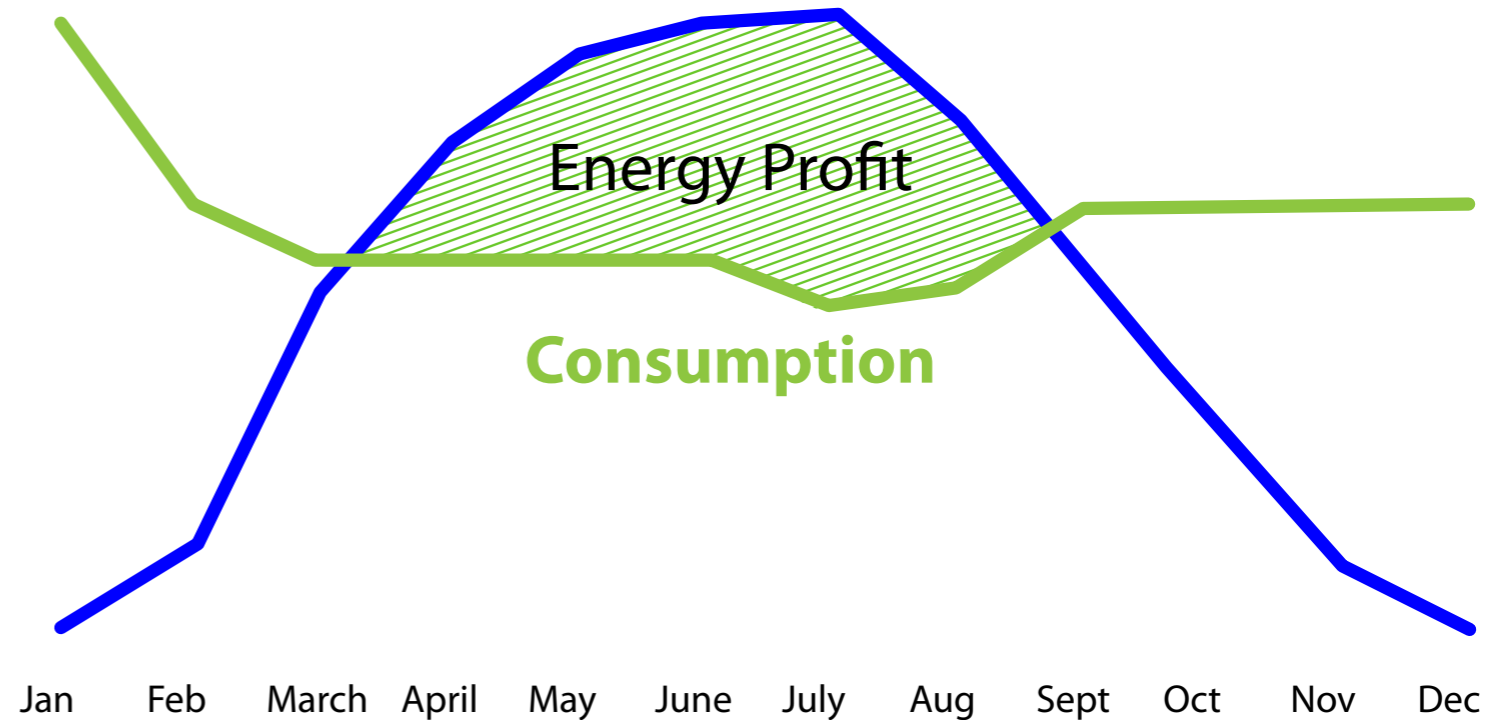
This particular system will reduce the home-owner's bill by around 55% in the FIRST year alone! Over time, the savings increase as the cost of electricity rises. The **RED** line highlights the cost of the home-owner's power bill if no solar is installed. The **Blue** line highlights the homeowners new cost with the solar system.

Over the life of the solar system, the anticipated savings, based on historical and projected electricity increases, is **\$42,000.00!**

That is a return rate of 150%!

So, a solar PV system DOES make a pretty good investment!

Total PV system Production





TESLA

TESLA Powerwall: *Feasible or Hype?*

Tesla has made waves recently with the announcement of their Power wall. Tesla, known for their leadership in the electric vehicle market, is now using their technology for the storage industry.

Tesla's goal is to be a leading storage provider, ideally mating their storage technology with renewable energy, providing an alternative to traditional energy use.

“ This technology is the start of a storage revolution for the solar industry that we’ll see unfold over the next 5-10 years. ”

There has been a ton of buzz around Tesla’s Powerwall and its ability to deliver the holy grail of solar – affordable, long term storage. The dream of living “off-grid” seems to be in our grasp!

Not so fast! Right now, the Powerwall is only designed to operate between 350 – 450VDC. This means all current battery based, off-grid inverter systems and charge controllers will not operate with the Powerwall. The Powerwall will currently only operate with the appropriate string (grid tie inverters).

While it is possible to adapt a grid tie PV system with the Powerwall to off-grid use, the cost of adaption vs. a traditional off-grid system is the question. Also, the power and energy load profile of an off-grid property is also a determining factor. The Powerwall is only rated to provide 3.3kW of peak power. Many of today’s off-grid system have larger power requirements, which

means multiple Powerwalls would have to be used, driving up the cost of this option.

In – Summary

Cost

As of right now, the Powerwall offers promise for basic back-up applications for grid tie applications. When it comes to off-grid use, the lack of integration with current off-grid equipment, the

cost becomes too great to provide a custom system installation verse a traditional off-grid system. For off-grid applications, current storage solutions are the most economical.

Performance

Right now, we have very little in performance metrics to judge the life-cycle cost of the product. How many cycles based on depth of discharge are expected? If the Powerwall is cycled beyond its recommendations, is the warranty void?

All-in-all, Elon Musk and Tesla have created a storage solution that is beautiful and appeals to the masses. This technology is the start of a storage revolution for the solar industry that we’ll see unfold over the next 5-10 years.

For grid tie applications, the Powerwall will provide an economical storage solutions in comparison to existing technology. For off-grid applications, the existing technology and system configuration is still the best, most economical route to go.



The Specs:

Technology

Wall mounted, rechargeable lithium ion battery with liquid thermal control.

Models

10 kWh \$3,500

For backup applications

7 kWh \$3,000

For daily cycle applications

Warranty

Ten year warranty with an optional ten year extension.

Efficiency

92% round-trip DC efficiency

Power

2.0 kW continuous, 3.3 kW peak

Voltage

350 – 450 volts

Current

5 amp nominal, 8.5 amp peak output

Compatibility

Single phase and three phase utility grid compatible.

Operating Temperature

-4°F to 110°F / -20°C to 43°C

Enclosure

Rated for indoor and outdoor installation.

Installation

Requires installation by a trained electrician. AC-DC inverter not included.

Weight

220 lbs / 100 kg

Dimensions

52.1" x 33.9" x 7.1"

130 cm x 86 cm x 18 cm

Certifications

UL listed

[Link to Tesla](#)

Solar Myth #62

“Solar PV modules take more energy to manufacture than they will deliver”

– **FALSE**

Recent studies place the power that goes into making a solar panel to be equal to about only 3 years of output by that panel.

Considering the expected lifespan of a Panel is about 30 years, this gives you 27 years of clean and efficient electrical production.

Sunfind Solar Products

Please don't hesitate to contact us if you have any questions or comments.

We love to hear from you!

www.sunfindsolarproducts.com

info@sunfindsolarproducts.com

P: 403.343.6434

F: 403.343.6455

#14 7459 Edgar Industrial Bend
Red Deer, Alberta
T4P 3Z5

