

# Watt's Happening?

Written by Don Pettit  
for Peace Energy Cooperative, Dawson Creek, BC Canada  
www.peaceenergy.ca ph 250-782-3882



## Got My Cheque!



*The author proudly displays his first cheque from BC Hydro for electricity fed into the grid from his solar powered building in Dawson Creek, shown in the background.*

**Y**es, the cheque has arrived. The cheque from BC Hydro, that is, for solar power I fed into the grid last year. Yea!

I have written several articles about the five-kilowatt grid-tied solar array on my roof in Dawson Creek, and how well it has performed, but the questions from interested folks keep pouring in, so I think ONE MORE article on this topic is called for. I promise, just this once more. And this time, it's back to basics.

### WHAT IS GRID-TIE?

BC Hydro should be given full credit for making grid-tie super-simple. In fact, British Columbia's grid is about the easiest to tie into in Canada. Here's how it works:

- Your electrically inspected and approved solar power system feeds power into the grid through your existing power panel.
- Your Smart Meter tracks both the power you

pull out of the grid and the power you feed in.

- You pay only for the difference = reduced electrical bills.
- If you put more power into the grid than you take out over a one-year pay period (as I did), BC Hydro pays you for that excess at 10 cents/kWh (this can be either a cheque or a credit on your account. I took the cheque!)

### **WHY IS THIS A GOOD TIME TO “GO SOLAR?”**

- The price for solar panels has dropped by 80% over the last 10 years, making your own solar power system very affordable.
- The Peace Region has a plentiful solar resource.
- Solar panels come with a 25-year warranty, and will probably be working just fine 50 years from now, making them a good long-term investment.
- Making your own solar electricity helps fight climate change. YES, it really does!
- Your local Peace Energy Cooperative makes “going solar” easy. They will design your own custom solar power system, offer good pricing on the best equipment, and connect you with qualified local installers.

### **HOW MUCH POWER CAN I EXPECT TO PRODUCE?**

A solar power system mounted on your roof can produce some, most or all of the electricity consumed in your home or business. A small, efficient Canadian home uses about 5,000-kilowatt hours (kWh) of electricity per year, and a not very efficient Mac-mansion about 13,000 kWh per year.

Most rooftop home-sized solar arrays are about 4 to 8 kilowatts in size, and will produce, in a pretty good solar location in the Peace Region, about 5,000 to 10,000 kWh per year, respectively.

Here are the figures for my 5-kilowatt system. Keep in mind that this is a modest-use commercial building in a “fairly good” solar location, and that I have taken steps to make it super energy efficient.

- 1) TOTAL SOLAR POWER GENERATED IN 2014:  
5500 kWh
- 2) TOTAL POWER USED BY THE BUILDING:  
(some solar, some grid) 3300 kWh
- 3) MAINTENANCE AND FUEL COSTS: \$0.00
- 4) ACTUAL PAYMENT/CREDIT FROM BC  
HYDRO for 2014: \$275

In other words, not only was my electrical bill for the year essentially zero, I also got paid for the excess power I fed into the grid. Result? One happy guy.

### **WHAT DOES SOLAR COST?**

Cost for your own solar power system will vary depending on the design of your roof, how much shading you have, etc. but for example, my fairly typical 5-kilowatt rooftop array cost \$18,000 installed, or about \$3.60 per installed watt.

Once it was up and running, there were no maintenance or operating costs; sunlight was my fuel and there were no moving parts to wear out or replace. And no pollution!

Plus, studies from areas where roof-top solar has been common for decades show that about 80 percent of my initial investment will be recovered when I sell my building, and that buildings with solar arrays sell better than those without.

Meanwhile I benefit from decades of lower electricity bills, effectively (at least in part, possibly completely) protected from future rate hikes. And hey, it’s really cool making your own power from sunlight!

Solar power is a real win-win-win: a win for you as a consumer of power, a win for your power utility, and a big win for planet Earth.

*And I just love gettin’ them cheques!*

*For a lot more info about “going solar” for your home or business, visit [www.peaceenergy.ca](http://www.peaceenergy.ca) and check out the “Solar” section.*

**Learn More:**

**["My Solar Year - what the numbers tell us."](#)**