

# Watt's Happening?

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## Grid-tie in BC: *it's easy*

Let's start with some feedback on the feedback. Letters poured in from the last column "My Solar Year" where I announced success at achieving 100 percent solar power for my Dawson Creek small business. Over the first full year of operation, my modest 5-kilowatt rooftop solar array (shown at right) produced more electricity than the building used, resulting in a net zero electrical bill. Yea!

And what a response! I want to thank everybody who wrote with questions and congratulations. Emails flooded in from across BC, even a wonderful letter from an old buddy who's bringing solar power to remote villages in Nicaragua.

From the letters, two big questions kept coming up, so let's spell out some clear answers right here.

### GRID-TIE MADE EASY

**Q:** "How difficult is it to get grid-tied with BC Hydro?" ("Grid-tied" means you are approved by BC Hydro to feed power into the electrical grid and you are compensated for doing so.)

**A:** Easy! BC Hydro is to be congratulated for making grid-tie a snap. Your power system, say a rooftop solar array, has to be electrically inspected and approved and use only CSA approved equipment (no problem



*This rooftop grid-tied solar array in Dawson Creek generated more electricity last year than the building used. By reducing electrical bills, solar power systems like this are gaining popularity across British Columbia.*

these days). Other than that, it's fill out a simple one-page form on the BC Hydro grid-tie website, email a copy of the electrical inspector's approval form, and voila! You're hooked up!

The Smart Meter then tracks both the power you take out of the grid, and also how much you feed in. Both numbers appear on your Hydro bill, and you pay only for the difference, reducing or eliminating your power bill while feeding your home or business with lovely, clean solar electricity.

At the end of a billing year, if you put more electricity into the grid than you took out (as I very happily did) you get a credit or cheque from BC

Hydro for that amount paid at the rate of 10 cents per kilowatt hour.

## PAYBACK SHMAYBACK

**Q:** “What is the payback time for a solar power system?”

**A:** When asked this question I usually give a flippant answer like, “Well, what’s the payback time on your paved driveway or that kitchen reno?” (It will cost about the same, say 10 to 20 thousand dollars). None of these have ANY payback whatsoever, yet we buy them anyway, don’t we? Why? Because they have both perceived and practical values that we think are worth the price.

So it is with solar. Looking only at money generated or saved with grid-tie vs. cost of the system, my “payback” will be about 12 years, if the cost of electricity doesn’t go up, which it will. With the roughly one third rate increase expected over the next few years, my “payback” will go down by a corresponding third. And so on.

With solar power, I am also, in a way, sheltered from future rate increases. As rates go up, so does the

value of the power I am producing, while my payback time shortens. Sweet.

But there are practical values other than just raw “payback.” Many of the components of a rooftop solar array come with 25-year warranties, and most experts agree that a useful lifetime of 30 or 40 years is not unreasonable. That’s decades of reduced electrical bills even AFTER the system has paid for itself.

Rooftop solar also increases the resale value of any building, as proven in other jurisdictions where grid-tie has become commonplace, like Ontario. As a tangible asset that pays for itself over time while generating real cash savings every day, it’s hard to beat an investment in solar.

There are perceived values as well. A solar array on my roof, to me, looks just plain cool. I’m proud of it. It says, “I care about the world,” which I do. And I like the fact that it’s actually DOING SOMETHING: powering my business. The fuel? Sunlight – silent, effortless. Darn near science fiction, but its not. It’s here, now.

There are about 370 grid-tied folks in BC, roughly doubled from two years ago. Not quite the one million solar roofs Japan installed last year, but we’ve made a start. Congratulations to every one of you!

## Quick Fact:

**CHINA LOOKS TO TIDAL POWER BIG TIME:** *The Wall Street Journal* reports that China is looking at marine renewables in a big and very serious way. With a long coastline and an on-going air pollution crisis, it makes sense. A proposed \$30 billion tidal plant would supply as much juice as 2.5 large nuclear reactors.