

Watt's Happening? #170

by Don Pettit

for Peace Energy Renewable Energy Cooperative

www.peaceenergy.ca ph 250-782-3882



Solar energy explained



You would never know to look at it, but this luxury home in Dawson Creek is better than 80% solar powered, which means for the owners very low electrical bills for decades to come.

Solar technology is new to western Canada. In B.C., for instance, there are fewer than 2000 rooftop solar arrays powering homes and businesses. In Japan there are over two million, Australia more than three million. China? I've lost count, but it is by far the world leader in solar, with some 10,000 new solar homes installed every day!

Around the world, solar is not only the fastest growing but now the cheapest energy source on Earth.

CHEAPEST?

Did you know that enough solar energy strikes the

Earth every hour to power our whole worldwide civilization for a year?

And did you know that the cost of solar power has dropped by 80 percent since about 2010?

Yep, solar power has become the fastest growing and cheapest energy source the world has ever seen. Around the world, solar is now achieving "grid parity" meaning it can compete with all other sources of energy, without subsidies.

If it has not reached grid parity in your area, it soon will. Cheaper than coal power, cheaper than hydro, nuclear, gas, and even wind power (which is a close second to solar and also still falling).

How is this possible? Massive upscale in automated manufacturing, and continuous improvements in solar panel efficiency. Extremely low maintenance, very high reliability and very long life (50 years plus). And a “fuel” that just keeps pouring out of the sky, free for the harvesting.

GRID-TIED SOLAR

Sure, but how do I power my home at night, or in the winter when the solar panels are covered with snow? Do I need batteries or something to store the electricity?

No, no batteries are required.

Attaching the solar array to the electrical grid – a “grid-tied” system, has neatly solved the problem. With grid-tie, (a system readily available in most provinces including BC and Alberta) your solar array first powers your home or business then feeds extra power into the grid, which builds up as a credit on your electrical bill. This credit can then be used up at night and all winter long. Works perfectly, and can result in reduced or zero electrical bills year after year.

I installed a 5,000-watt grid-tied solar array on my business building in Dawson Creek six years ago, and have paid exactly zero dollars for electricity since. The return on my solar investment? About 6% per year. I really, really like that.

GOING ALL-ELECTRIC

I like it so much that at my rural home near Dawson Creek I have just added another 6,000-watt grid-tied solar array to my existing 2000 watt array

(some of the solar panels in my old array are more than 30 years old and still doing fine) that should take me a long way towards my dream of a solar-powered lifestyle with zero electrical and fuel bills and zero pollution.

Already I have a small battery-electric ATV, and new battery-powered lawn mower, edge trimmer and chain saw. They work great (they really do!), and are a huge improvement over the noisy, poisonous fume-spewing monsters I was used to.

Now it's just press the button and go. Quiet, clean, easy, and I charge them all with my own solar energy.

Next will come an electric vehicle (contrary to popular belief, they actually work extremely well in the north!) that I charge with my own free solar electric fuel, and a new super-efficient heat-pump home heating system that uses electricity to harvest free heat energy from the outside air.

Both EVs and heat pumps are now becoming widely available. An all-electric solar lifestyle provides security, luxury, convenience, easy comfort and independence at very low cost, very low maintenance, for a

very long time.

As an extra bonus, using my own solar power to go electric is about the greenest thing I can do. Solar is financially practical, improves my standard of living and helps fight climate change.

Qualified solar suppliers and installers are probably available in your area. Adding solar to your home, business, ranch or farm is quick and easy now and is a good long-term financial investment. Check it out.

**With
grid-tied
solar,
no batteries
are
required.**