

# Watt's Happening?

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## Questions answered at Solar Open House



*The Peace Energy Coop Solar Open House was a great success, featuring tours of two state-of-the-art solar power installations and test-drives of Motorino electric bikes and scooters.*

**T**he Peace Energy Coop open house held on Saturday, May 17 in Dawson Creek was a great success. Guided tours were given of two businesses recently outfitted with state-of-the-art solar electric equipment: South Peace Chiropractic and Peace Energy headquarters in the Peace photoGraphics building. Lots of folks also got a chance to test drive Motorino electric bikes and scooters, now also sold by Peace Energy Cooperative.

The high turn out and enthusiastic crowd made it clear that interest in renewable energy is alive and well in the Peace Country. We all know now that we have to switch to renewable energy sources as soon as we can, so learning how solar power works is an important first step.

At the open house, lots of questions were asked and answered. Here are a few of the most common:

## **HOW LONG DO SOLAR ELECTRIC PANELS LAST? ARE THEY A GOOD LONG-TERM INVESTMENT?**

All reputable manufacturers now give a 25-year guarantee on their solar panels. Real expected lifetime is expected to be in excess of 50 years. Nothing is “used up” and nothing “wears out” on a photovoltaic (PV) panel. Through the magical quantum properties of light and silicon, photons are converted directly into electrons – no moving parts, no chemical reactions. PV panels are truly solid-state electrical generators.

I bought my first panel for my home PV system way back in 1980. It was one of the first commercial-scale panels available. Thirty-four years later that first panel is working just fine. It has been outside exposed to the elements and generating electricity all that time, yet it shows almost no sign of wear or deterioration. And the new panels are even better!

Yes, solar electric panels are a very good long-term investment.

## **I KNOW THE PRICE OF PV PANELS HAS DROPPED DRAMATICALLY OVER THE LAST FEW YEARS. SHOULD I WAIT TO INVEST UNTIL THE PRICE COMES DOWN EVEN MORE?**

Probably not. The price for panels has dropped over the last few years from \$5 or \$6 per watt to close to \$1 per watt, making them, for the first time, very affordable. But that price seems to be bottoming-out as the immense and rapidly growing world market adjusts to this new idea of cheap solar power. Demand continues to outstrip production, so that may eventually cause a slight price INCREASE.

However, overall the price WILL slowly continue to decrease over the next decade, heading for the magic number of 50 cents per watt, at which point solar electricity will be cost-competitive with coal,

currently the cheapest source of power.

So don't expect any more rapid price drops, but rather a slow, steady price decrease over the next decade or so. Now is an excellent time to go solar.

## **IF I COVER MY ROOF WITH SOLAR PANELS, WHAT HAPPENS WHEN I WANT TO RE-SHINGLE IT?**

No problem. In the first place, the panels protect your shingles from sunlight, the most damaging cause of shingle deterioration. When the shingles finally do need replacing, the entire array can be removed in an afternoon with two people and a power wrench. After re-shingling, the array is easily re-installed right where it was. The panel-to-panel wiring is all of the plug and unplug variety – very simple, but you will want to consult with a qualified electrician to check everything over before re-activating the system.

Although roof mounting is very common and millions of roofs worldwide now feature solar power arrays, pole or rack mounting in your yard near the house is another popular option.

## **WHAT ABOUT PAYBACK TIME?**

The beauty of a grid-tie PV system is that it DOES pay for itself over time, unlike most home improvements. Payback in BC is presently slow, perhaps 10 to 15 years, but in Ontario, many states south of the border and most of Europe, payback is much faster because the utilities there pay a premium price for clean solar power.

Some day that may happen in BC too, but for now, solar power reduces or eliminates your electricity bills, adds to the value of your home or business, and greatly reduces your carbon footprint. I'd call that a win-win whose time has come.

## **Quick Fact:**

### **INDIA TO EXPAND SOLAR, BIG TIME:**

India's new prime minister, naming clean renewable power as its highest energy priority, has vowed to place a solar panel on every home by 2019, bringing clean-powered light to 400 million people. Presently most homes rely on polluting fossil fuels for illumination.