

Watt's Happening? #115

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UPDATE: the Hudson's Hope Solar Project



The District of Hudson's Hope is beginning to look very much like a twenty-first century solar community. The District Office has a 53 kW solar array that will supply about 80% of its power, and behind it the Bullhead Mountain Curling Club will be 100% solar powered with its 72 kW solar array.

The District of Hudson's Hope is going solar, big time.

They've embarked upon one of the most ambitious solar energy projects in the province, and as you drive around town now (as I did this past weekend) it's beginning to show – it's starting to look like

a real, honest to goodness, twenty-first century solar community.

The focus through the summer has been to get all the outdoor work done by installing some 1580 solar panels. All of the largest roof-top arrays are now in place (and they are big!) now totaling some 350 kilowatts

(350 kW = 350,000 watts. For comparison, a normal household solar array is about 5,000 to 10,000 watts). In addition there will also be one large 122 kW array at the Hudson's Hope sewage treatment facility. This will be a rack-mounted ground array some 600 feet long!

Next, crews of electricians will be connecting the solar arrays to each building's electrical service, through a series of powerful inverters that will feed solar electricity into the building and excess power into the grid. All of the solar arrays should be operational by the end of the year.

The solar power systems in Hudson's Hope are "grid-tied" through BC Hydro's net metering program, meaning the solar electricity they generate powers the building first, then feeds excess power into the grid. This excess power is recorded as a credit on that electrical account, and can be used later by the building when it needs it, say at night or in the winter.

This works particularly well in the north, where we often produce much more power than we can use during the long days of our sunny summers, which gives us a big credit to use up during the short days of winter.

WHY SOLAR?

With no moving parts and sunlight for fuel, solar arrays are extremely low maintenance and cost essentially nothing to run.

"This is part of our on-going economic development plan that will reduce our operating costs over the long term and provide opportunities for local residents in the rapidly expanding solar industry," explains Gwen Johansson, Mayor of the District of Hudson's Hope.

You see, all the power these solar arrays generate is power the District of Hudson's Hope does not have to pay for. And that's a lot of electricity.

Some of the solar-equipped buildings will be 100% solar powered, others will see a percentage of their electrical use replaced with solar in the 50% to 80% range. Overall, the nine solar locations will reduce their electrical bills by an average of 61%.

This will save the District about \$71,000 a year, increasing over time as the cost of electricity

from the grid inevitably increases. Estimating a conservative 2.5% increase in the grid rate each year, the District will save about \$3 million over the next 30 years.

LOCAL PEOPLE, LOCAL BENEFITS

Your very own Peace Energy Renewable Energy Cooperative in a Joint Venture with Moch Electric Ltd., (both based in Dawson Creek) was chosen to design, supply and install the solar arrays.

Last year the District of Hudson's Hope successfully applied for and received a \$1.35 million grant from the Strategic Priorities Fund/Federal Gas Tax Fund through the Union of BC Municipalities. Peace Energy Co-op then provided the initial system designs, and eventually won the province-wide competitive bid to supply and install the solar arrays.

Also, seven Hudson's Hope high school students were hired by Moch Electric Ltd. for the summer. They not only received fall-arrest safety training, they acquired valuable solar installation experience and were an important part in an historic renewable energy project.

"They were some of the best employees I have ever had," said Ron Moch, site supervisor. "Willing, interested, hard working and smart."

The very rapid shift to solar energy occurring around the world is not being driven by concern for the environment (though solar energy is certainly clean and green energy). It is being driven by economics. Solar power makes economic sense now.

Hudson's Hope is proving that we can have a cleaner environment, local jobs, abundant renewable energy. . . and save money too.

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