

CAN WIND AND THE SUN CHANGE THE WORLD?



Anastasia Ledwon and her family have been living off the grid since 2002, with a solar-wind hybrid system and propane generator as backup. "Even with less sun in the winter, we live comfortably, says Anastasia. It definitely makes you very aware of your energy consumption."

By Mike Simpson,
Executive Director at One Sky

January 3rd was a glorious but cold day in Smithers so it was a pleasant surprise to hear our solar hot water system sensors turn on. At One Sky we have both thermal hot water panels and photovoltaic (electrical) panels on our roof. We get a lot of questions about how our systems work and if it is cost effective.

Our answer is that it depends on your situation. The installation of solar hot water is definitely cost-effective if you have direct access to the sun, which many houses here do. If you live in a particularly windy spot or live far from the grid then photovoltaics and wind turbines can be a very clever option. Our particular system is set up as a demonstration of the technologies currently available and how they have changed substantially since the experimental days of the 1970s.

Today it is possible to hook the wind generators or panels up directly to the electrical grid and watch your meter turn backwards. The electrical grid acts like a giant battery, electricity flows into your house when it's dark and back into the system when the sun shines and your meter goes back and forth accordingly.

So what is the bottom line? If you are building a new home or cabin and are located far from the grid you should definitely make inquiries. A small, cabin sized system can cost under \$10,000 while a full "hybrid" wind and solar system designed for a large home with a substantial load can cost anywhere from thirty to fifty thousand dollars.

Luckily, these systems are often built in modules where you can add a few panels at a time to spread out the cost. Also, while the initial investment tends to be high, there is a long-term payback because the sun and wind are free.

Certainly if you are building a new home you should take the time to install the extra plumbing or wiring in your walls so these options are open to you in the future. Our recommendation is to contact a reputable alternative

energy company like "Energy Alternatives" in Victoria who can advise you regarding your particular needs. You can also drop by One Sky at 3768 2nd Avenue in Smithers and pick up a copy of our Green Building directory to find locally skilled and trained professionals.

Before you invest your hard earned dollars in solar panels we suggest you

review your current consumption. Generally speaking, it is five times more cost effective to take simple conservation measures to reduce energy than to go to the trouble of producing more. That old beer fridge might be sucking as much as three or four panels can produce in a day.

A wind generator is certainly sexy but it is a lot easier to switch to energy efficient light bulbs first. If life is more than just dollars and cents then the great news is that life is entirely possible in the Bulkley Valley relying on only the sun and wind for electricity. With the combination of biomass or geothermal energy it is possible to substantially reduce or even eliminate your carbon footprint.

Buzz Word of the Week

Carbon Footprint

The total amount of greenhouse gases produced to directly and indirectly support human activities, usually expressed in equivalent tons of carbon dioxide (CO₂).

"LIFE IS ENTIRELY POSSIBLE IN THE BULKLEY VALLEY RELYING ON ONLY THE SUN, WIND AND BIOMASS"

In The Neighbourhood

The District of Chetwynd, a small community in the Northeast, has been using renewable sources of energy for years. Windmills power energy efficient LED lights along the main boulevard.

Crosswalk lights receive energy from a solar powered LED system; this is the sole source of energy for the push button crosswalk lights.

These initiatives have sparked great interest from neighbouring communities and businesses. Proof that renewable sources of energy are viable in the North!



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