

## Solar energy only part of the solution

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Published: Thursday, March 26, 2009

Have your household operating costs got you down? Want to increase the value of your home? Can you see Oceanside as a solar community?

About 30% of the average home operating costs in British Columbia are spent on heating water. Only heating the space we live in costs more. And a reduction of \$1,000 in the cost of running a house can result in an increase in its value of \$15,000-\$20,000. In addition, moving to solar hot water heating normally pays for itself in about six years.

The reduction of hot water heating costs for much of the year, in combination with the many rebates currently being offered by governments and SolarBC, now makes solar water heating more attractive than ever for many homeowners. And if you can't afford to pay out the lump sum at once, SolarBC has created a short-term loan program, exclusively for the purchase of one of these systems for your home.

A solar hot water system is fairly simple technology. Panels on the roof collect the sun's energy and use it to pre-heat water the before it goes through your existing hot water tank. At some times of the year, all of your water will be heated by solar energy; during cloudier periods, the regular system will kick in. The solar system can provide at least 60% of your hot water needs throughout the year, even at this latitude with our climate.

This technology is often discussed in reference to individual homes, but it doesn't have to stop there. Similar options and incentives also exist for commercial buildings, including municipal and regional government structures.

Seven communities, including Whistler, Tofino, Saanich, and North Vancouver, have all become official "Solar Communities" with Solar BC. They are currently installing solar-based devices on government buildings, parking meters, traffic lights and each has its own plans to expand solar technology within its jurisdiction.

Recently, Kelowna was awarded the Solar Community of 2008 for its many adaptations. Highlighted was a major hotel that went completely solar, heating 145 rooms, two hot tubs and a 90,000-litre swimming pool. In addition, an older YMCA pool facility will soon be retro-fitted with a pool dehumidification system and hot water heating for all of the showers. Kelowna has also established a community-based Solar Steering Committee to look for future corporate and community initiatives.

In other areas entire solar communities are being built. Okotoks, just south of Calgary, has created a "district system" to store the solar energy underground during summer and distribute that energy during winter months. Through this system, they are able to provide 90% of the space heating requirements for 52 homes in the subdivision.

If everyone in the Oceanside area switched to solar hot water systems or even put their whole house onto solar heating, the output of energy at the user site would be minimized. However, the construction and shipping of all the elements needed to create these solar systems would be significant.

There would still be greenhouse gasses produced during manufacturing and shipping of the systems. Water would be consumed in their manufacture. Impacts from mining various metals and the collection, processing and shipping of oil and gas would occur in order to produce many of the parts required. The water, gas and oil are not expected to last forever at current use levels.

And even though these solar systems are expected to operate for 20 years or more, there would be some waste, and the need to manufacture replacements, incurring further impacts. At some point, we need to look at the whole picture and consider all the trade-offs in an inter-connected way.

After over 12 years of trying to implement a Regional Growth Strategy, the Regional District of Nanaimo (RDN) has, by their own admission, not attained the goals they were aiming for. A population growing faster outside the Urban Containment Boundaries than within those boundaries and increasing water consumption resulting in insufficient water resources for many areas in the RDN are two examples.

Technological solutions, such as solar water heating, can certainly place our feet on the road to sustainability. But only when we recognize and accept that we have to live within the carrying capacity of our area and our finite resources, will we actually start walking down that road.

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