Homeowners harness heat with pop cans

BY YANA DOYLE, FOR NEIGHBOURS NOVEMBER 13, 2009

Using a solar panel made up almost entirely of recycled pop cans, Greg Routley has been able to cut his family's heating bill by as much as 40 per cent at times.

Photograph by: Leah Hennel, Calgary Herald, For Neighbours

In a time of global economic recession and with the threat of a cold winter looming around the corner, one Calgary family has found a way to cut their energy costs and heat their home.

While solar energy might be an old concept, this family's particular 'brand' of solar energy is not.

Using recycled pop cans, the Routley family has been able to cut their heating bill dramatically.

In case you think you may have read incorrectly, let me reassure you, you have not.

Using a solar panel made up almost entirely of recycled pop cans, the Routleys have been able to cut their heating bill by as much as 40 per cent at times.

As a heating, ventilating and air conditioning mechanic by trade, Greg Routley is the perfect guy to introduce this concept to Calgary.

"I've always been interested in alternative forms of energy. As a kid, I used to have an engineering manual under my mattress, instead of comic books. During the oil embargo of the '70s, I got involved with solar energy. Technology at the time though, was not up to the task. It was expensive and ineffective and still today, most people can't afford to install solar panels."

It was almost two years ago though, that Greg heard about this simple and cost effective way to harness the sun's heat, and only a month later, he was up on his roof installing a solar air heater for his home.

The technology is simple. Behind a protective UV stabilized clear plastic barrier are lined up dozens of aluminum pop cans.

Aluminum not only attracts the heat but is also a good conductor of heat.

One fan draws air from the inside of the house, forces it through the collector, (the pop can part), where it gets heated from the sun, and then discharges it back into the house.

In the Routley house, the fan discharges the warm air into the main hallway of their house, allowing the air to circulate throughout the rest of their home.

According to Greg, "last February, we used to shut

our furnace off in the day and just have the solar air

heater running. We would come

home and if it was a sunny day, the temperature in the house would be anywhere from 20 -23 C."

While the manufacturer of the solar

air heater, called the Cansolair, claims a 20 per cent reduction in heating costs after installation, Greg saw as much as 40 per cent in some months last winter, especially when the sun was shining brightly.

"Calgary is a great city to own a solar air heater. We are the #2 place for solar incidence in Canada. In other words, Calgary is the second sunniest place in the country, behind only Pincher Creek. While we might be a cold place, we are a sunny place and we should take advantage of that solar potential."

In addition to loving the money he saves every month on his heating bill, especially in our cold -20 degree winters, Greg Routley is a real advocate of cutting our green house gas emissions.

According to Greg, "if everyone had a solar air heater on their house, we would see a significant drop in our city's green house gases. How great would that be?"

As a real solar energy enthusiast, Greg is eager to educate other Calgarians that there are affordable, effective alternatives out there.

With a surface temperature of 5, 538 C, the sun clearly has the ability to heat our cold Calgary homes. You only have to look as far as your empty soda cans.

For more information on solar air heaters, visit their website at www.sunsourceenergy.ca

Greg Routley says Calgary is a great city to own a solar air heater.
Photograph by: Leah Hennel, Calgary Herald, For Neighbours