# EUREKA EXCHANGE

Facts and Stats on Cansolair's Solar Panels - "Green heat is a gift from the sun."



The dimensions, in inches are 44W x 88.5H x 4 thick at sides, 8.5 thick at the center. Rather than being flat, the glazing on the Cansolair panel is rounded so that it wraps around the unit, catching the sun for more hours of the day. You can see this curve in the picture above, and the dimensions below.

#### What is it?

A solar panel that uses the free flowing energy of the sun to either heat outdoor air and bring it into a building or to heat indoor air without introducing new, fresh air.

### What does it do?

Cansolair units are used for space heating, crop and process drying, and pre-heating of ventilation air. Cansolair's solar panels enable you to get heat for your office or home without the pollution. And as inventor Jim Meaney points out "green heat is free heat." What you have to appreciate when you see Cansolair's solar panel at work is not only its sleek appearance but the simplicity of its design. Add to this the fact that it is re-using a material and upgrading its value - Cansolair uses aluminum soft drink containers (pop cans) as they offer excellent heat transfer. They are modified to cause the air to spin, separating cold air out. This is part of the reason for the unit's high performance: for every 1 watt in you get 77 watts of heat. This would make Cansolair's solar panel one of the most cost effective heating system in the market to date.

### What's it in for you?

The economic and environmental benefits of using solar energy to help heat businesses and homes are obvious to us; can you see them? Park your concerns for the planet for a moment. Let's talk about the money you can save.

Payback usually occurs anywhere between 2 to 5 years, although in some locations it could be as long as 8 years. This depends on your specific circumstances. Your specific costs savings relate primarily to the sun's availability, which is dependent on:

- 1. where you are geographically; even your micro-climate makes a difference.
- 2. the number of hours and the number of days of sunshine you get in a year, particularly in the dead of winter. If you are in Nunavut your payback may take a little longer than if you are in Bay Roberts, Fonthill or Sooke. (We've provided you with a snapshot chart on sunshine on the next page.)
- 3. the orientation of the panel on your building—south, or south-west facing is best (so make sure the unit is installed properly).

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### Let's do the math

A Cansolair solar panel is priced around the \$3,200 mark with taxes and a guess at shipping costs; so it's a bit more than pocket change. If you are in a zone of maximum opportunity, you could see payback in about 2 and a half years, which means that you would be saving \$1,250 a year; in a different climate \$500 a year in just under 6 and a half years. The client in the video stated a 32% drop in his lighting bill (he has electric heat).

As energy rates climb, this 32% could increase. We note that Mother Nature does not change her rates. She has no debt recovery charges. Remember too that if your hours of operation are daytime, your building can be kept cool at night – more savings.

Changing the type of energy you rely on should be coupled with energy conservation options.

How much you will save also depends on how well your building is insulated. If you can see a grey-haired geneticist named David throwing you a basketball through a gap in the wall; not so good. A Snapshot of Canada's Sunshine Cities: Prairies are the sunshine belt, which is good 'cause it is really cold out there in the winter.

City	Hours	% Daylight	Days
Calgary	2405	53	333
Winnipeg	2372	51	318
Regina	2338	50	321
Saskatoon	2329	50	320
Edmonton	2299	49	321
Victoria	2193	46	317
Hamilton	2088	45	302
Ottawa	2061	45	303
Toronto	2038	44	303
Montreal	2029	44	304
Kingston	1992	43	299
Vancouver	1928	40	289
Quebec	1905	41	291
London	1800	38	288
St. John's	1512	33	270

Hours = ave. # of hours of bright sunshine a year. % Daylight = % of daylight hours that are sunny. Days = ave. # of days/year with some bright sunshine. Source: http://www.currentresults.com/Weather-Extremes/Canada/sunniest-cities.php

Let's not forget the environmental benefits of using solar. Solar heat does not produce emissions, and using it can help to reduce your carbon footprint.

This is an important energy conservation message: Remember to eliminate your points of heat loss first; they create waste that costs you money.

Keep an eye out for rebates. Many jurisdictions offer funding opportunities that can help defray the costs of switching to alternative energy, which means your payback is sooner.



Over 2,000 panels are in use. The panels are good for at least 15 years (Cansolair has been selling them for that long). On average, it means you get between 10 and 13 years of free *daytime* heat; worst case 7 years. Obviously solar panels don't produce during the night when the sun is 'over yonder' or 'down under'. A dwelling of 1000-square feet can have a complete air change in 1.5 hours, with comfortable room temperatures maintained with 15 minutes of sunlight per hour.

There are a number of other advantages that Cansolair's solar panel offers; the first one is wind tolerance. When the wind starts howling, most other solar panels drop down flat to avoid damage. This does not seem to be an issue for Cansolair, for the unit is bolted onto the building; it's not meant to move around. An exception would be if we're talking tornado-level winds. Your bigger problem will be your house ending up in the land of Oz.

Your energy usage (for the blower) is efficient, only using 31 watts. The whole unit crated and shipped is still light – 130 kg. (just under 60 lbs.); on your building it's 85 kg. (and just under 40 lbs.)

The unit is fully automatic and can be synced with your existing heat controls. Once it's properly installed, that's it. If you are a seasoned carpenter, there should be no problem, otherwise hire someone who has been trained to install it right the first time.

Another advantage, there is virtually no maintenance required. Rain or snow washes off the dirt; another perk from Mother Nature. So, don't rub the UV-treated coating with paper towels or use any abrasives that will damage it.

Client testimonials on the Cansolair site have reported the unit working in areas up to 1600 sq. feet, however, Cansolair stats suggest you use 1000 sq. feet as your planning guide. The units are modular; if your office, barn, workshop or plant is larger than this you can use two or more in tandem to heat a bigger space.

### Now, for the nitty-gritty question, does this really work?

Well, Jay Ingram, host of the Daily Planet on the Discovery Channel, and author of "The Ultimate Book of Everyday Science" identifies Jim's invention as an "*ingenious device for using solar energy to heat buildings*." It's about rethinking material use not just recycling. Cansolair's website also includes testimonials from clients and a growing inventory of photo evidence.

For more details, click here and you will be linked to Cansolair's website.

Click here to join—www.goingforthegreen.net