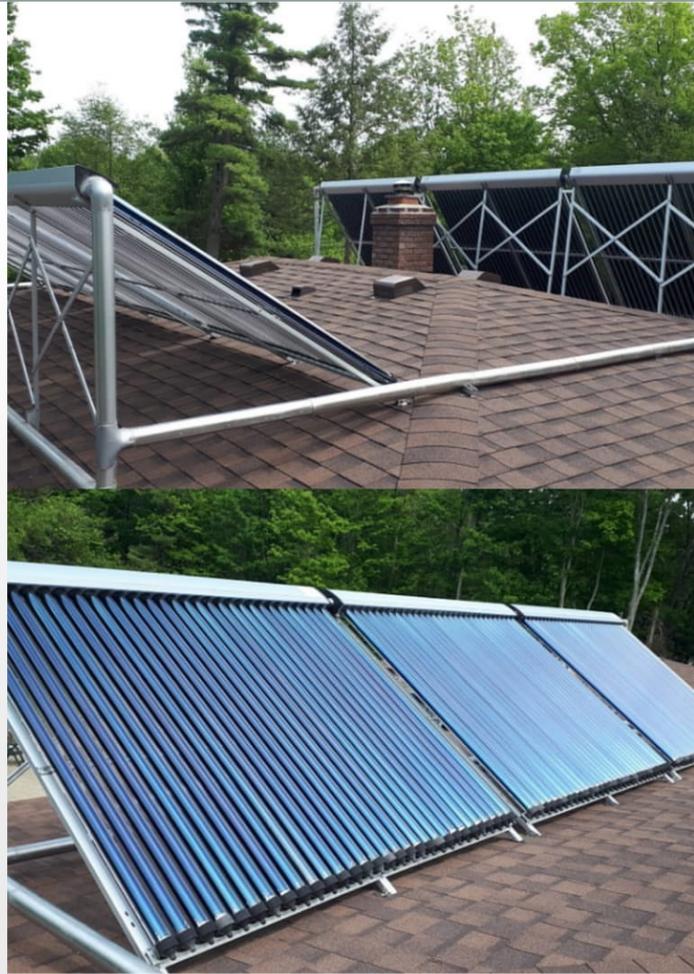


SHOP  
DESIGN  
INSTALLATION  
MONITORING  
MANUFACTURING

**solcan™** was founded in 1975 by Robert Swartman and since then has been a leader in the Canadian solar industry. With a dedication to quality and reliability, we are your best choice from solar electric to solar pool, water, and floor heating! We also manufacture our own solar thermal collectors at our facility in London, Ontario.

**solcan™** has since been passed down to Bob's granddaughter Jessica & her husband Lyle Lemon. We are a family owned and operated business that is proud to contribute to a positive future for our planet and our children.

Our mandate is to provide cost-effective, high quality, and enhanced durability solar solutions in a constantly evolving energy and economic climate. After 40 years of experience harnessing the sun, our business is shining brightly!



f /weharnessthesun  
t @SolCanEnergy  
i @solcansolarsystems

## SOLAR ENERGY SOLUTIONS

### manufacturing SOLUTIONS

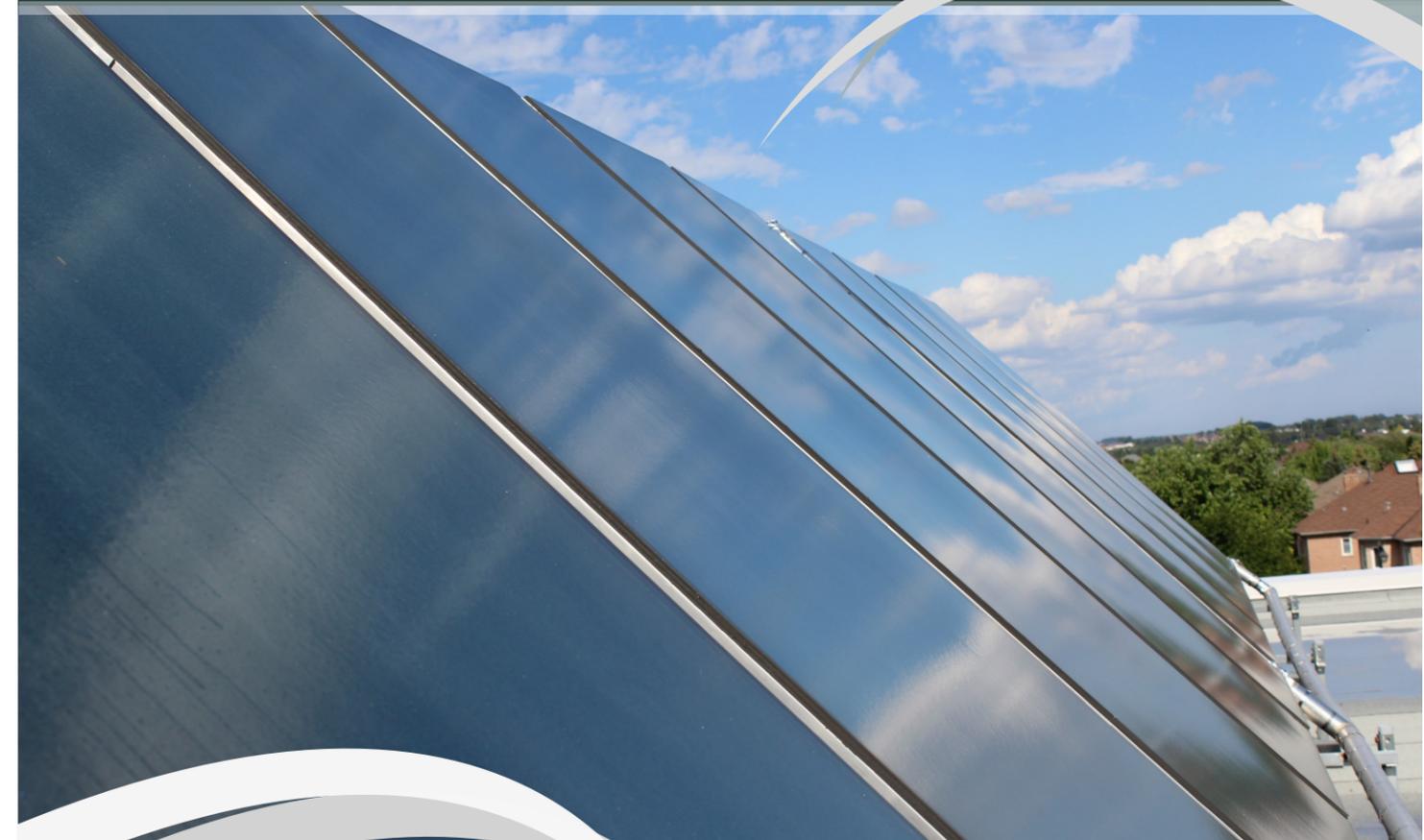


**solcan™** has been a manufacturer of thermal panels since the 1970s. Our **2101 Flat Plat Plate Solar Thermal Collector** is the evolutionary successor to our earlier models. The collectors have been tested as part of CSA and SRCC at the National Solar Test Facility in Mississauga, ON and are proudly manufactured in Canada!

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## SOLAR THERMAL HOT WATER SYSTEMS

SHOP • DESIGN • INSTALLATION • MONITORING • MANUFACTURING



## What is solar thermal technology?

### PVs HAVE AN OLDER AND SEXIER BROTHER—HERE IS AN OVERVIEW OF SOLAR THERMAL AND WHY YOU SHOULD CARE

Renewable energy technologies are an increasing part of worldwide dialogue: steering climate policy, political debate, and our vision of the future.

One of the lesser known solar technologies is **solar thermal**. These systems have been adopted worldwide and are very common in Europe, China, and Australia, but have largely been overshadowed by solar PV in North America. Solar thermal systems are used to provide thermal energy to reduce reliance on traditional energy sources, such as Natural Gas, Hydro, or Oil. Heating water with solar offers substantial benefits for any household or business looking to thoughtfully reduce their environmental impact.

As households, businesses, and governments strive to operate in a more sustainable manner, solar thermal has seen a resurgence. Solcan has been a professional solar thermal manufacturer and installer for over 40 years, and we look forward to the technology's bright future in Canada!

Our Flat Plate collectors have been made in Canada since 1975!

## the profits of solar energy

### THE ENERGY AND ENVIRONMENTAL REVOLUTIONS

#### HOW TODAY'S INVESTMENT WILL BENEFIT TOMORROW

Have you thought about how much you spend each month heating your domestic hot water? Each year? Now, imagine if you could reduce or eliminate that expense from your balance sheet while reducing the amount of GHGs emitted to heat your water. A typical solar water heater will reduce annual energy costs by 40–50% and reduce CO<sub>2</sub> emissions by up to 2 tonnes per year for an average household. An investment in a solar water heating system is a great way to offset what would otherwise be a permanent, ongoing expense to your local utility.

Solcan offers you a chance to take charge of your energy costs by going solar! Installing a solar system on your property means you can fulfill your water heating needs locally by harnessing energy directly from the sun, instead of with Natural Gas, Electricity, Hydro, etc.

With climate at the top of many Canadians' minds, there is a collective realization that we need to reduce our dependency on fossil fuels and other energy sources that are detrimental to the environment. A **solar thermal system** is an excellent way to steer Canada towards a more sustainable future. With our professionally installed solar systems, we are offering you the chance to take the wheel!

The benefits of a solar water heating system include: lower utility bills, protection from rising energy costs, increased home value, & decreased carbon footprint.

### SYSTEM CONFIGURATIONS:

- **DRAINBACK SYSTEM:** uses solar tank to store solar fluid until it “drains back” when there is heat to be gained by sun in collectors. Prevents solar fluid from overheating in summer and freezing in winter.
- **CLOSED LOOP SYSTEM:** consists of continuous fluid loop between solar collectors and heating loads. The solar fluid is stored in the plumbing throughout the system and uses heat exchanger to heat potable water.
- **THERMOSIPHONING SYSTEM:** a.k.a. passive solar system. Relies on natural convection for circulation instead of forced circulation with circulator pump. Ideal for seasonal cottages or parks.

### ADDITIONAL OPTIONS:

- **COMBINATION SYSTEM:** in addition to providing solar for domestic water heating, space heating, and other hydronic heating applications, a solar thermal system can also be designed to provide heat to your pool! These systems, providing heat to multiple loads, are called **Combination Solar Thermal Systems**.

### design SOLUTIONS

**solcan™** offers free assessments for anyone curious about a solar system on their property. Once we get the green light, our team then engineers a system based on your energy needs and consumption, and matches it to your structure's aesthetic.

### installation SOLUTIONS

**solcan™** has a crew ready to work for you! Whether you designed and purchased your system with us, or simply need us to do the leg work, we have dedicated installers ready to help you harness the sun. A trained team is crucial for an optimal solar system, so go with the pros!

### monitoring SOLUTIONS

**solcan™** systems can be equipped with 24-hour monitoring software that allows us, along with the system owner, to track the energy production & performance of the solar thermal system. This helps us ensure your system is always running smoothly & at its highest capacity!



### HOW A SOLAR THERMAL SYSTEM FUNCTIONS

The **solar collectors** absorb energy from the sun, which is then converted to **heat**. The heat is transferred to the **heat transfer fluid** by the **solar absorber** inside the collectors. The **solar controller** measures the temperature at the solar collectors and compares that to the temperature at the **solar storage tank**. Once the temperature at the collectors has reached a point where energy can be transferred to the potable water, the **circulator pump** is activated, sending the solar-heated working fluid back to the insulated storage tank where the heated potable water is stored for use. The circulator pump is either powered by the controller using 120VAC, or can be powered directly by a photovoltaic panel.

In addition to solar water heating, solar thermal systems can also provide heat for radiant floor/space heating systems, pools, hot tubs, and snow melt systems.

### SO YOU WANT A SOLAR SYSTEM! WHAT NOW?

**We're here to guide you along your process! Call or email us directly to get started. In the meantime, here are some more fun solar thermal facts:**

- Solar thermal systems require little to no maintenance
- Collectors are made and installed to drain at seasons' end and withstand harsh winter temperatures
- You can achieve up to 100% system efficiency with solar thermal heating
- An investment in a solar thermal system could pay itself off in two years or less, depending on the project
- Solar thermal systems are a great economic investment to consider in industrial applications, such as:
  - Schools and recreational centres
  - Condominium and apartments complexes
  - Gyms, health clubs, and spas
  - Hotels, cruise ships, and water parks
  - Long-term care and assisted living facilities