



[www.apricus.com](http://www.apricus.com)



**Hot Water, Powered by the Sun  
Delivered by Apricus**

# Solar Hot Water Basics

## Solar Collection

The solar energy hitting the earth's surface can reach  $1000\text{W}/\text{m}^2$  on a clear summer's day. Solar thermal collectors use a special coating that is up to 95% efficient at capturing solar energy and converting it into usable heat. The average solar hot water system efficiency is ~50-70%, depending on the collector design, installation angle and location, solar radiation levels and operating temperatures.

## How it Works

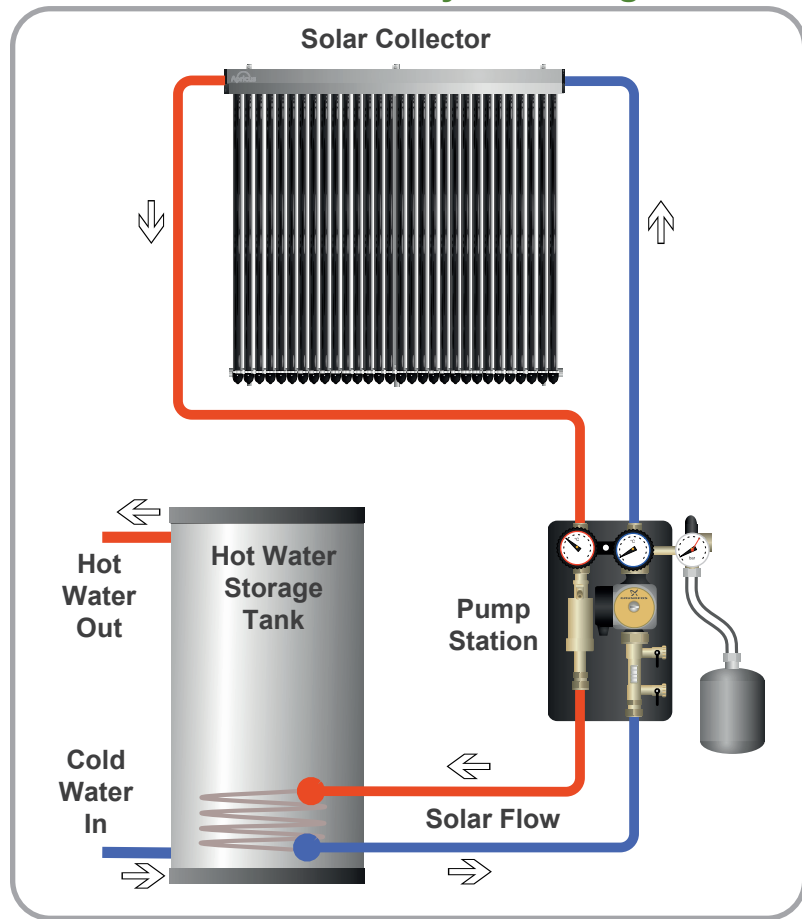
1. Solar energy is absorbed by the dark coloured absorber and transferred to copper pipes that contain a fluid.
2. The pump station circulates the solar heated fluid back to the hot water tank.
3. Throughout the day the solar system gradually raises the temperature in the hot water tank.
4. A backup energy source (electric, gas etc) ensures hot water supply when solar output is not able to fully meet demand.
5. The system can be a single tank (as shown) or a dedicated solar tank can provide pre-heated water to a main hot water tank.

## Benefits

An Apricus solar hot water system can provide the average household with 50-80% of the domestic hot water requirements. Depending on energy costs and local solar incentives, an installed solar thermal system can normally repay itself in 4-7 years. The collector then provide real savings every year thereafter.

So installing an Apricus is not only good for the **environment**, it is also a **great investment!**

## Solar Hot Water System Diagram





# Climate Change

*Installing a solar hot water system significantly offsets dirty fossil fuel usage, reducing carbon emissions and providing you with greater energy independence.*

## What is Global Warming?

Global warming is caused by the release of excessive greenhouse gases into the atmosphere, primarily from the burning of fossil fuels which in 2009 still provided more than 86% of the world's energy. <sup>1</sup>

The solution is to reduce the use of dirty fossil fuels by developing clean renewable energy sources to form a sustainable energy mix capable of meeting the world's energy needs. Installing an Apricus collector is an effective way for a household to reduce carbon footprint, and is equivalent to planting 650 trees, or driving 10,100 fewer km each year. <sup>2</sup>

*Nov 2012, World Bank Group President Jim Yong Kim warns: "A 4°C warmer world can, and must be, avoided – we need to hold warming below 2°C"* <sup>3</sup>

## Effects of Global Warming

**Rising Sea Levels:** Major flooding of low lying coastal regions.

**Loss of Biodiversity:** Ocean fish stocks will drop, rate of animal extinctions will accelerate and ecosystems will be disrupted.

**Extreme Weather:** Warmer global temperatures lead to more extreme weather patterns such as droughts, floods and cyclones.

**Lower Agricultural Yields:** Droughts and more erratic weather will impact food production leading to higher prices and food shortages.

*World Meteorological Organization reported: "The amount of greenhouse gases in the atmosphere reached a new record high in 2011."* <sup>4</sup>

# The Apricus Advantage

## Why Choose Apricus?

1. We are a global company with offices in more than 8 countries, and experienced representatives world wide.
2. Focus on high quality, reliable products.
3. Apricus solar hot water systems have been operating in the field for more than 10 years, providing invaluable product design experience.
4. Strong technical training and system design services for industry professionals.
5. We listen to our customers, and constantly work to provide better and better products and services that are suited to local climates and plumbing requirements.
6. Strong, responsive customer support.
7. Comprehensive warranties on all products.
8. ISO9001:2008 quality management certified operation
9. Belief in our products and strong drive to make a tangible impact on climate change awareness and action.
10. Commitment to fair labor practices, career advancement and open communication throughout the company.
11. Commitment to low environmental impact manufacturing of products designed to minimise embodied carbon footprint.





# Certifications

Apricus solar hot water systems are fully certified making them eligible for local rebates and incentives.

Apricus has obtained the following key certifications:

- ISO9001:2008 Factory Quality Management System
- Solarkeymark (EU)
- SRCC OG-100 & OG-300 (USA)
- Uniform Solar Energy Code (USA)
- AS/NZS2712:2007 (Australia & New Zealand)
- CAN/CSA-F378 (Canada)



# Who is Apricus?

Apricus is a latin word meaning “attracting the sun”, so is a great name for a company that provides quality solar thermal products!

Established in 2003 by an Australian entrepreneur, Apricus is a leading designer and manufacturer of solar hot water and hydronic heating products for residential and commercial use. The Apricus range of renewable energy products provide simple and effective solutions for families and businesses concerned about the effects of climate change and rising energy costs.

Apricus has offices in key markets, and works with experienced and technically knowledgeable partners in other regions to provide well designed and quality installed solar water heating solutions.

With 10 years of experience providing solutions to markets ranging from the deserts of Australia to the frozen plains of Northern Canada, Apricus has product solutions suitable for a wide range of climates.

Let **Apricus** help you **Become Part of the SOLUTION**



Apricus is a proud member of the following associations:



Check us out on:



For more information visit:

[www.apricus.com](http://www.apricus.com)

Available Locally From:

