

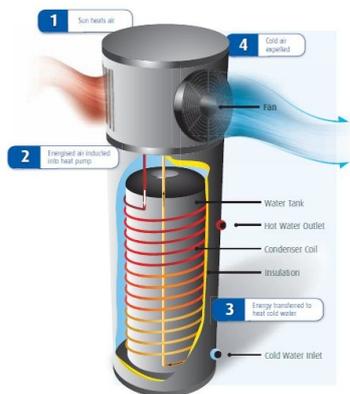
energy solutions for business

saving with heat pumps

Interested in cutting your hot water heating bills at the office? One possibility is the use of a heat pump. The heat pump provides a different way to use renewable energy to heat water, one that doesn't need solar panels. Heat pumps use about one-third of the energy of an electric water heater.

How does it work?

The heat pump is a little like a reverse refrigerator. It transfers the heat in the air outside the unit to the water stored inside via a heat exchange system. Importantly, the system works even in cold conditions, down to 10 degrees Celsius. This means that even on those chilly winter days your staff will have access to hot water.



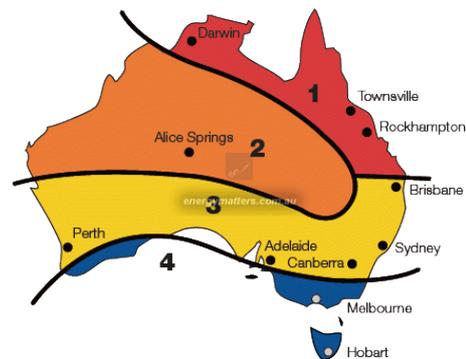
The benefits

- Long-term savings in hot water expenses.
- A heat pump can produce between three and five times the amount of renewable energy, than the electricity required to power the unit.
- A smaller energy requirement means a reduction in greenhouse gas emissions.
- It is effective even at lower temperatures. If it does get extremely cold, the electrical assist is activated to ensure there's no shortage of hot water!
- No solar panels—no need to find roof space.
- Solar heat pumps use the same connections as an electric hot water system for ease of installation.

Suitability

There are a number of issues to consider before deciding to install a heat pump:

- your local conditions—although the units will work in cold weather, cold climates will cause longer compressor runtimes, effectively reducing the life expectancy of the unit
- your zone—zones 1 and 2 (map below) are generally warm enough to allow heat pumps to operate efficiently. Generally, the yearly average ambient temperature should be 19 degrees Celsius or higher
- how many STCs—the number of STCs (or Small-scale Technology Certificates) for each system also depends on your zone.



What does a STC mean to me?

Once you have had an eligible hot water system installed, you can assign the STCs to a registered agent in exchange for reimbursement or discount off the price of the system. STCs have replaced Renewable Energy Certificates (RECs).

(Source for diagram, map and information: <http://www.energymatters.com.au/renewable-energy/solar-power/solar-hot-water/solar-heat-pumps.php> 14/2/13)

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