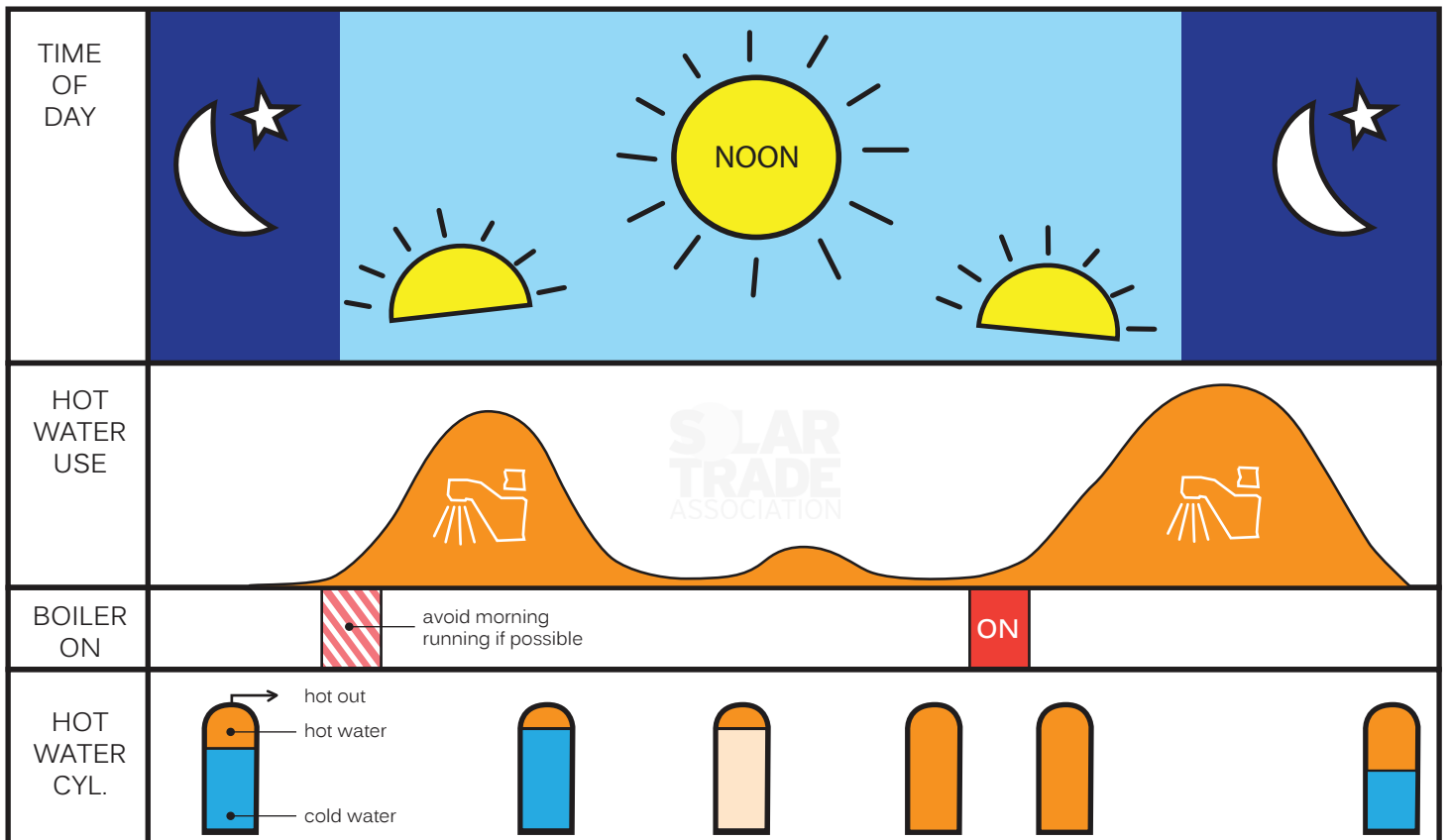


How to Get the Most from your Solar Water Heating System

Generate more hot water from your solar heating collectors, save more money and do the most for the environment with these easy to follow steps.

- 1 Time the boiler or immersion heating to come on as late as possible in the day, and switch off before the time of greatest hot water use. The aim is to leave the maximum amount of cold water in the hot water cylinder the following morning for the solar system to heat.



- 2 Always leave the back-up heater control on automatic. For occasional changes from the norm, use the "boost" or "advance" functions leaving the automatic switching times unaltered.

- 3 To ensure the highest level of hygiene for your hot water supply, set the cylinder thermostat to 60C.

How to get the most from your ThermaTwin heating system

The purpose of a solar water heating system (solar thermal (ST)) is to heat your hot water via the sun. The collectors on your roof or in your garden are designed to absorb the heat from the sun and transfer that heat to your hot water cylinder (or thermal store) so it can be stored for use when the householder uses their hot water taps, showers and baths.

The objective for a householder is allow their ST system to do as much work as possible to heat your hot water, rather than using the back-up heating system (e.g. boiler; immersion heater). Used effectively, 60% of your annual hot water usage can be met (note 1) – but you need to allow your cylinder to be heated throughout the day from your ST system, and not use your back-up system until the end of the day. This is how we suggest you achieve that objective:

- 1) Set your back-up system to run at the end of the day e.g. 4 or 5pm
- 2) Alternatively use the “boost” or “advance” on your heating controls
- 3) If you have high water use in the morning, you may need to set your back-up system to run prior to that usage e.g. if 2 house hold members shower from 7am, set the back-up to run at 6am for 1 hour

By following these guidelines, it allows the maximum part of the day to raise the temperature of your cylinder from its lowest point to its highest.

DO NOT heat your cylinder with the backup system during the day. If your cylinder is heated to 60c with the backup, your ST system will only heat half your water at best. Let your ST system do the work!

Heat will be generated during the day when there is light, and is most effective when there is full sunshine. Most systems are designed so you have enough hot water generated throughout the day to meet your hot water requirements (note 2). To get the most value from your ST system, you will probably need to change the way you use your existing heating system. This data sheet is designed to help you to do this. Firstly here are some water facts:

Water Temp	Example: Water in your house	Solar Temp	Solar Water Heating System Performance
10c	Cold water feed	10c to 70c	Possible upgrade in cylinder temp. on a sunny day
37c	Bathing a baby	20-50c	Ave cylinder heat range on a poor, overcast day
39c	Typical adult shower	50-80c	Heat transfer range from the collectors
60c	Maximum	130c	Maximum heat in collectors on a sunny day

In summary, even on an overcast day in winter, your ThermaTwin system will be providing heat, saving you money on running your boiler. For a very simple pictorial guide on how to use your system, please see the first page of this document.

Note 1 – Evidence provided by Energy Saving Trust field trials

Note 2 – In peak winter months, a ST system alone will not be sufficient. Back up heating will be required

STA – Who we are

For over 30 years, the Solar Trade Association has been the leading voice for solar in the UK. Established in 1978 as a not-for-profit trade association we represent a diverse membership across the solar power and solar heating industry. The STA works with its members to achieve the right regulatory framework and incentives for solar to deliver an increasing contribution to the UK's electricity and heating needs.