

Solar Water Heating



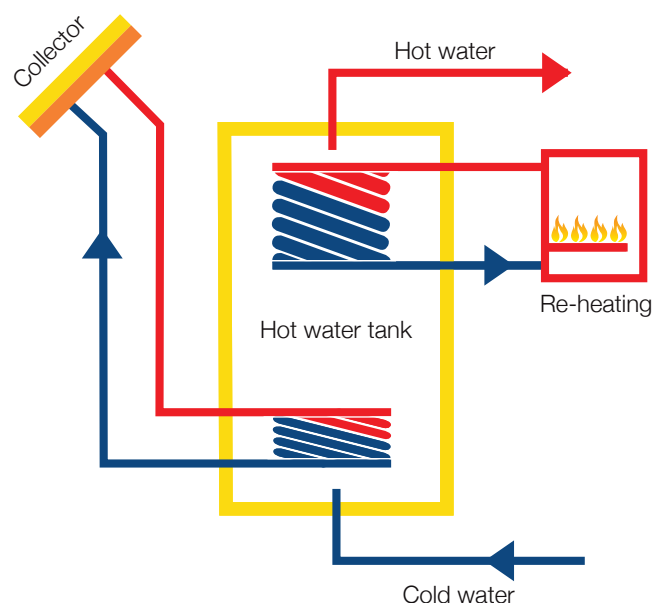
The Sun provides us with an unlimited and reliable source of free energy. Solar Heating is about harnessing free natural energy and making good use of it. Ireland gets about 60% as much solar energy as received at the equator, and that is a lot of heat energy! About 70% of this is received between the months of April and September, when central heating is typically not required.

- **60% to 70% of your hot water free.**
- **Reduced energy costs.**
- **Future proof against rising energy costs.**
- **Improved Building Energy Rating (BER).**
- **Reduced carbon footprint.**
- **Convenient & consistent supply of hot water.**
- **Long life & low maintenance.**

How it works (the basics)

- 1** Radiated heat from the sun is collected by the solar panel.
- 2** This heat is transferred to a liquid circulating in pipes between the solar panels and where the heat is needed.
- 3** The heat is then transferred by a heat exchanger to the domestic hot water or central heating system.
- 4** An intelligent controller dictates when to circulate the liquid and when not to, based on information provided by temperature sensors in the system.

Particular products and systems may vary, the basic principal remains the same. It is important that each system is specifically designed and selected to suit the site and the user's needs.



Installation

Solar Panels can be installed during construction of a new building or retro fitted to an existing building. They are one of the most accessible sustainable energy systems for existing buildings. In most cases this involves the replacement of your hot water cylinder with a special 'solar cylinder' which is also usually larger (to take greater advantage of the free energy).

Installation typically takes 2 to 3 days and involves very little disruption. In the majority of cases, planning permission is not required.

Solar heating panels can also be used for:

Space Heating, Swimming Pool Heating, Process Heating

*Evacuated Tube collectors
on 45 deg. frames*



Evacuated Tube collectors



Flat Plate in-roof collectors

Installation process

New Build

- 'Roof Integrated' panels are mounted during construction of your roof.
- 'On Roof' or 'Frame Mounted' panels are installed on the finished roof.
- The solar cylinder is delivered in time for the plumbing second fix stage.
- Special solar pipes are run between the panels and cylinder location.
- Solar pump, controller & ancillary items are installed and connected.
- The solar loop is filled with solar liquid and tested once water and power is available.
- The system is commissioned (set-up) and left running.

Retro-fit

- In most cases 'On Roof' panels are installed in a retro-fit installation.
- Your new solar cylinder is installed (replacing the existing cylinder).
- The cylinder changeover is usually completed in one day to minimise disruption.
- Special solar pipes are run between the panels and cylinder location.
- Solar pump, controller & ancillary items are installed and connected.
- The solar loop is filled with solar liquid and tested.
- The system is commissioned (set-up) and left running.