A Buyers' Guide to Solar Heating Systems

SUSTAINABLE ENERGY IRELAND
Renewable Energy Information Office

Installing a solar water heater is not such a difficult process. However it is not a do-it-yourself job for most people. There are important decisions to make and a few rules to apply to ensure that your solar heating system, including system size and design, are to your satisfaction and meet your requirements.

It is vital to look for a high quality product when choosing your solar collector. All products registered by SEI under the Greener Homes Scheme have met minimum quality requirements in terms of efficiency and safety. In addition, we suggest that you select a collector that has the European Solar Keymark label which shows a further commitment to quality from the manufacturer.

We advise that you ask your supplier to recommend an installer as reputable suppliers will only deal with experienced qualified installers.

Please visit www.sei.ie/greenerhomes for lists of solar heating system suppliers and installers. We highly recommend that you shop around in order to get the best product and the best value for your money.

Questions to ask your Supplier and Installer

SEI REIO has put together a list of questions you should ask suppliers and installers before making your purchase. It is in your best interest to make sure you are satisfied that all your questions are answered.

Equipment

- Is the product on SEI's list of registered products? (Remember, if it is not listed you will not receive a grant under the Greener Homes Scheme).
- Is the solar collector certified by the European Solar Keymark?
- Are all the flashing and fixing components for the panels provided?
- Do all the materials used conform to the solar system manufacturer's specifications?
- Is the solar hot water cylinder sufficiently large (minimum 50 litres per person in the household)?
- Is the cylinder sufficiently insulated (minimum 3 inches thick insulation, more at the top)?
- Is the solar heat exchanger area large enough (minimum 0.25 m^2 per 100 litres of cylinder volume)?
- Is the system protected against overheating, freezing and excessive pressure?
- What is the performance rating of the solar collectors under expected operating conditions?
- Is pipe work thoroughly insulated?
- How do the controls work and are they suitable for my requirements?

Sizing and design

- How are your hot water requirements calculated and how is the solar water heater sized?
- What percentage of your hot water requirement will be covered by the solar water heater?
- Is the location of the solar panels (orientation, tilt, visual aspect) appropriate?
- Is the solar system configured according to the manufacturer's specifications?
- Is there any disruption of the building structure or fabric required to install the system?
- How is back-up heating going to be provided?
- Is the system regulated to ensure hot water is heated sufficiently at least once daily to avoid hygiene risks?

Installation & Commissioning

- Does the dealer offer delivery, installation, commissioning and after sales service?
- What is the training or accreditation of the installers involved in the installation?
- Which trade associations' do the installers belong to?
- How many systems has the installer installed; are local references available?
- How much of the installation will be sub-contracted?
- Who is ultimately responsible for what segments of work?
- How long will the installation take?
- Who is responsible for commissioning the system?
- What are the procedures and tests carried out when commissioning the system?
- Who cleans up inside / outside?

Operation & Maintenance

- Is full documentation, including an operation manual, provided with the system?
- What maintenance tasks have to be performed by a professional and how regularly?
- Does the supplier have spare parts available?

Costs and payment

- Does the quotation cover all the costs associated with the installation of the solar heating system (panels, storage tank, pipes and fittings, controller, delivery, installation, commissioning)?
- What is the range of annual savings under average conditions?
- What are the financing options or payment terms?
- Are there any additional costs?

After-sales services

- What is the guarantee on labour and parts for each component of the system?
- Is an annual service contract available from the supplier?
- Is full documentation, including the user's manual, provided?
- How does the dealer provide emergency service work if required?

For further information on renewable energy and energy efficiency, please visit www.sei.ie.

Call 023/42193 for a free information pack on how renewable energy can be applied to your house or business.

Sustainable Energy Ireland
Renewable Energy Information Office
Shinagh House
Bandon
Co. Cork

t +353 23-42193
f +353 23-29154
e renewables@reio.ie
w www.sei.ie/reio.htm