Choose the right solar water heater for your home.

Follow this handy checklist when shopping for a solar water heating system.

1 Choose a direct or an indirect system

There are three types of system:

Direct systems – water is heated directly.

Suitable only if you have a frost-free climate (if you live below the escarpment) and the water in your area doesn't have a high chemical content.

Direct frost resistant systems – water is heated directly but prevented from freezing. Suitable if the water in your area doesn't have a high chemical content.

Suitable if your area is prone to frost.

Indirect systems – water is heated via a heat exchange mechanism.

Suitable if you live above the escarpment region where your area is prone to frost. Also if the water in your area has a high mineral content (hard water) where calcium build-up occurs (check your kettle for lime scale build-up).

Hint! Indirect systems are suitable for all areas and potable water types.

2 Select the size of your system

The system you buy should have the capacity to meet all your household's heated water requirements so that you don't have to rely on electrical backup.

To work out how big your system should be:

- Allocate 50 litres of hot water per person in your household. For example: four people = 200 litres.
- Add an extra 50 litres to cover general domestic hot water usage. For example: 200 litres + 50 litres = 250 litres.
- Use this total as the minimum holding capacity of your solar water heater.

Hint! Consider the climate you live in. If you live in an area that gets a lot of rain or cloud cover, a lower cost system with smaller-size panels won't meet all your household's hot water needs, and the electrical element will kick in to provide for the shortfall, so you won't save much electricity. Conversely, if you live in an area that gets lots of sunshine every day, a big system with big panels will produce more hot water – or hotter water - than you need.

3 Choose your storage

You have two choices:

Pumped storage

Water is forcibly moved by a pump. Suitable if you want the tank to be located away from the panel and hidden from view in a cupboard or in the ceiling. There are various pumps available, including renewable alternatives which use photovoltaic (converting sunlight into electricity) technology.

Thermosiphon

The tank is placed above the panel, usually on the roof, and water moves by natural convection. Suitable if you don't mind having the tank outside on the roof. This also reduces any chance of water damage due to a burst geyser.

4 Choose your tank configuration

There are three tank configurations to choose from:

Standard installation

Replaces your existing electric geyser with a new, standard configuration solar tank and panel. Optimises the use of solar energy rather than relying on electrical backup.

Pre-feed installation

A solar tank and panels feed solar-heated water into your existing electrical geyser. This type of installation is recommended when extra hot water capacity is required. The existing electrical geyser remains intact.

Retrofit system

Solar panels are fitted onto an existing electrical geyser. This saves you the cost of buying a new solar tank. However, solar systems rely on well insulated, highly efficient geysers, so make sure your existing tank is in suitable condition for this type of application. Your supplier can advise on the suitability of your tank. The existing electrical geyser remains intact.

Hint! A standard installation is the most common and recommended installation.

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Save even more with an Eskom solar water heating rebate

Eskom's Solar programme offers you significant consumer discounts on the purchase of registered systems. Discounts vary according to the size and cost of the system, the interest rate, the capacity of the system to reduce electricity usage and the cost of electricity.

How to partner with Eskom to receive your rebate:

1 Choose a registered supplier

Choosing an Eskom registered supplier and installing a registered system offers you the assurance that your system is tested by the South African Bureau of Standards (SABS) and enables you to qualify for a rebate.

- Go to **www.eskom.co.za/dsm** or mail solar@eskom.co.za for a list of Eskom registered suppliers and systems.
- Request and evaluate quotations from at least three registered suppliers.

2 Claim your rebate

- Ask your registered supplier for your claim form. The form should have the details of the electrician and installer already filled in.
- Complete your details.
- Attach the required documents. These include the original invoice, a copy of your ID and a copy of your utility bill and proof of residence.
- Post or drop off your claim to the facilitating auditors, Deloitte, within six months of the installation.

Note!
You will receive an SMS notification when the auditors receive your application, when your application is processed and queued for electronic payment or if your application is incomplete.
Payment of the rebate is made within eight weeks from date of receipt.

If your system is not listed on **www.eskom.co.za/dsm** you will not qualify for a rebate.

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