



Make the right call

Now all that's left is to phone an accredited supplier and installer in your area. And then sit back and enjoy saving the planet, and maybe think of some ways to spend all the money you'll be saving too!

Visit participating retailers or the Eskom website on www.eskom.co.za/idm or mail the Eskom Solar Help desk at solar@eskom.co.za for more information on the Eskom Solar Water Heater Rebate Programme or for a list of accredited suppliers and installers in your area.

Where to find more information

- Website: www.eskom.co.za/idm
- Help Desk tel: 011 800 4744
- For any participating suppliers (see complete list on website)
- Email: solar@eskom.co.za



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The buyer's guide to solar water heating



Save money

Installing a solar water heater can save you a lot of money. On average, a solar water heater pays for itself over a period of five years, and as some solar heaters last for around 25 years, that leaves another 20 years to reap the benefits. By using solar energy to heat your water, you can save up to 24% on your water heating bill. And you won't be left with a lukewarm bath. Solar energy is so advanced nowadays, it just takes a simple mechanism to use the average daily sun to create and store really hot water. With the knowledge that electricity bills will definitely increase in the next few years, you can't ignore the single biggest way to save on electricity costs, the solar water heater.

Imagine slashing your electricity bill every month!

On top of the money that you'll be saving from day one of installation, Eskom is offering you a rebate when you buy an accredited solar heating system through their Solar Water Heater Programme.

How much can you save?

	kWh saved per day	Monthly saving based on an electricity price of 60c/kWh	Average rebate from Eskom
Family of two with a 150-litre system	4,5kWh	R135	R4,589
Family of four with a 300-litre system	8,2kWh	R246	R8,820

* Figures given here are based on the system list as at Feb 2012

Save energy

When you switch to solar, you become less reliant on electricity, which means that you can still have a hot bath when there's a power failure. It also means that you can help free up capacity on the national power grid, which is already under strain. When you switch to solar you become part of the solution.

Solar technology is widely used overseas; in some countries only solar powered geysers are allowed. South Africa has learned from this and is now taking advantage of our more than ample sunshine.

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Cash back

Eskom's Solar Water Heater Programme is offering a substantial rebate when you purchase your accredited solar water heater. The size of the rebate depends on the system you choose, as each system is allocated a different rebate based on its potential to heat water. Rebates will decrease every year as electricity prices rise, so switching to solar now will get you a maximum saving.

How to claim your rebate

- Before you install your system ensure your installer, system and supplier are registered on the Eskom programme by confirming on the Eskom website at www.eskom.co.za/idm under the accredited supplier section or contacting our solar help desk at solar@eskom.co.za or calling us on (011) 800 4744.
- If the supplier is not on our website or cannot be confirmed by our help desk, you cannot qualify for a rebate.
- If your geyser has an electrical element ensure that a timer, which is pre-set to be operational outside of the Eskom peak periods, is fitted and an electrician signs off your rebate forms.
- Ask your accredited supplier for a claim form. The form will have the details of your system, the electrician and installer already filled in.
- Complete your details correctly, especially your bank and contact details.
- Attach the required documents (original invoice, a copy of your ID, proof of residence and a copy of your utility bill).
- Use the self-addressed envelope provided with your claim form to post your claim or drop-off your claim in a designated drop box within six months of the installation.

You will receive an e-mail or SMS notification regarding the status of your claim. Rebates are paid within eight weeks from date of receipt of a complete claim.

Save the planet

Every unit of electricity used not only increases carbon dioxide emissions in the air, but also uses up coal and water. By using solar energy instead of electricity, you are helping to preserve our environment and our natural resources. The sun's energy is quiet, clean, unlimited and free.

There is a big emphasis on reducing our impact on the planet. And the only way that we can do it, is if everyone plays a part. You can make a difference right now, just by switching to solar.

No stress

Eskom's Solar Water Heater Programme makes solar heaters more accessible and more affordable. Eskom has a number of registered suppliers, distributors and registered independent installers (plumbers) on the programme to make the process of buying and installing a solar water heater easy for you.

Eskom approved solar water heating systems are all tested by the SABS to the minimum national standard. When you install a rebatable system, you will have the installer and electrician sign to confirm the installation complies to all relevant standards.

Can one solar heater really make a difference?

The answer is yes. A 150-litre solar water heater can replace 4,5kWh of electricity a day. This means that in one year your solar heater could save 2,07 kilolitres of water and 821kg of coal that would have otherwise been used to generate electricity. And every year your solar heater will prevent 1,6 tonnes of harmful CO₂ from being released into our air.

Check if your timer setting is still accurate

Some timers installed in households lose their settings when they have lost power. This happens due to power outages, switching the circuit in which the timer is installed or quality of supply/frequency fluctuations. The effect of this is that the timer, when switched on again, is now set to switch off and on at a different time causing a timer drift. This new timer setting could fall within the Eskom peak period. To combat this, householders are reminded to:

- Check if their timers synchronise automatically
- If not, to check their timer settings and to ensure the correct setting is still in effect.

Correct timer settings not only ensure peak electricity use is curtailed but also ensures that optimal savings on solar systems are achieved.

Buying a solar system is a big decision with big rewards, so here's some help...

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

✓ Step one – Choose an accredited supplier

This ensures that your system is tested by the SABS, registered on the Eskom programme and that you qualify for a rebate.

✓ Step two – Choose between a direct and an indirect system

There are two types of systems:

Direct systems – Water is heated up directly

Indirect systems – Water is heated up via a heat exchange mechanism.

You can choose a direct system if:

- You live below the escarpment region and don't get any frost
- The water in your area does not have a high chemical content.

You should choose an indirect system if:

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

Hint!

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

✓ Step three – Select the size of your system

The system must be able to meet your specific household's hot water requirements so that you don't have to rely on electrical back up. 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!

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 your household's hot water needs and the electrical element will be used to provide for the shortfall, so you won't save as much electricity.

✓ Step four – Choose your storage

You have two choices:

Pumped storage – Water is moved by a pump

Thermosiphon – The tank is placed above the panels, usually on the roof, and the water moves by natural convection.

Choose pumped storage if:

- You want the tank to be located away from the panels and hidden from view in the ceiling.

Choose thermosiphon if:

- You don't mind having the tank on the roof
- Your roof structure can handle the weight of the tank
- You want to reduce the chance of insurance damage due to a burst geyser.

✓ Step five – Choose your tank configuration

There are three tank configurations to choose from:

Standard installation – A new solar tank using a standard configuration

Pre-feed installation – A solar tank and panels are fitted to an existing electrical geyser.

Retrofit system – Solar panels are fitted on an existing electrical geyser.

Choose a standard installation if:

- You want to replace your existing electric geyser
- You want to optimise the use of solar energy rather than relying on electricity
- You want to elicit the most electricity savings.

Choose a pre-feed installation if:

- You want to feed solar-heated water into an existing electrical tank. This type of installation is only recommended when extra hot water capacity is required.

Choose a retrofit system if:

- You want to save on the cost of buying a new solar tank. Your existing tank must be suitable for this type of application. It must also be in good condition. Your supplier can advise on the suitability of your tank.