

# Switch off your geyser.

The electricity demand it reduces helps the whole of South Africa.

The residential sector uses about 17% of the total electricity generated in South Africa. From 7am to 10am in the morning, and 5pm to 9pm in the evening – periods of peak demand in South Africa – residential demand is up to 35% of the total demand required.

## And the appliance most responsible?

Domestic geysers are responsible for that sharp evening peak.



### One simple action is needed:

- Switch it off during peak periods – it is one of the most effective ways to reduce pressure on the national grid. A timer is a simple device that can be installed to assist you to automatically switch your geyser element off during peak periods. The geyser timer will be set to switch off by default between 6am and 8am as well as 6pm and 8pm on weekdays. Consumers may also ensure they are off the grid during the evening peak by manually switching off their geysers from 5pm to 9pm, or at least a portion of that peak period.

### Here are some common myths about geysers and electricity supply:

**Myth:** Switching off your geyser does not significantly reduce the overall peak demand for electricity.

**Fact:** **The nearly 5,4 million electric geysers in South Africa contribute about 2,940MW of electricity to the evening peak, enough to free-up five units of a 'six-pack' power station or power a big city the size of Durban.**

**Myth:** Switching a geyser off and on, uses more electricity than leaving it on permanently.

**Fact:** **“A geyser will not use more electricity if it is switched on and off. When a 150-litre geyser is switched off and stores its water at the thermostat set point, the water temperature decreases by approximately 10°C over 24 hours (if no water is used during this period). This so-called ‘standing loss’ is a quality standard set by the South African Bureau of Standards (SABS). If the geyser is switched back on, electricity will be used to heat the water to its set point temperature. No saving will be achieved but the geyser will also not use more electricity than if it remained switched on,”** says Kwikot Technical Director, Herman Weber.

**Myth:** Switching a geyser off and on, damages the thermostat.

**Fact:** **“Switching a geyser off and on, or using a timer to do the switching, will not damage the unit. A thermostat, by the nature of its operation, switches a geyser off and on throughout the day,”** says Weber. **“The thermostat is designed to switch the**

**element off and on continually which the timer will do,”** says Richard da Silva, Instruments Manager at Hellermann Tyton.

**Myth:** Switching a geyser off and on, could crack the geyser's metal casing.

**Fact:** **Operating, as designed, a geyser cycles through a heat range far greater than the slow cooling of a geyser when it is switched off.**

**Myth:** If you cover a geyser with a 'geyser blanket' you don't have to switch it off to save electricity.

**Fact:** **Switching geysers off does not save electricity, it assists Eskom to reduce the evening peak demand. Geyser blankets and water pipe insulation however will save small amounts of electricity. You still need to switch off your geyser over periods of peak demand to ease pressure on the national grid.**

**Myth:** A geyser covered with a 'geyser blanket' can overheat, explode or ignite.

**Fact:** **Provided the geyser blanket and water pipe insulation are manufactured from suitable material, there is no risk of fire or explosion. The blanket simply reduces heat loss, while the thermostat controls water temperature**

**Myth:** A geyser fitted with a timer offers a more efficient way to manage electricity demand during peak periods.

**Fact:** **The results are identical, whether you use a timer or switch the geyser off manually. Note that switching your geyser off does not save you energy but keeps you off the grid during Eskom's critical peak periods, that is especially required during the evening peak.**



- Insulate your geyser and water pipes. Geyser blankets and pipe insulation reduce the cooling rate of a geyser when switched off, and the electricity needed to reheat the water. This measure could save an average household of four, between R180 and R250 annually.
- Set your geyser's thermostat at 60°C.
- Switch off your geyser before going on holiday or an extended trip, switching off for long periods will produce savings on your bill.
- Install your geyser close to the tap outlet where the water is to be used.
- Use cold water for washing your hands.
- Install an energy and water saving shower head. You could reduce your energy consumption by up to 16%, and your hot water usage by up to 24%.
- A seven-minute shower is more efficient than running a full bath.
- Don't run hot water freely and unnecessarily, use a basin plug.
- If your clothes are not particularly dirty, skip the pre-wash cycle on your washing machine. This could save up to 20% of the electricity needed to heat the water in the washing machine.
- Wash bed linen at 60°C instead of 90°C, and always wash a full load.
- Fill your dishwasher; turn it off at the drying cycle, and dry the dishes by hand.
- Connect the dishwasher to the cold water supply when cleaning the filters.

### Remember

Consider replacing your electric element geyser with a heat pump or a solar water heating system, as an energy-efficient solution to heating water in your home. Eskom currently offers rebates on both heat pumps and solar systems.

### Let's be energy-smart

Eskom invites the homeowner to partner with it in a national drive to become electricity smart and adopt energy-efficient habits and practice. Together, let's save electricity and ensure an environmentally friendlier South Africa.

### Measures to reduce your electricity bill and save money

Not all changes in behaviour will result in your monthly electricity bill being reduced. Some behaviours like manually switching off your geyser and pool pump, or having a timer installed to do this for you automatically, will help you to help Eskom keep the power supply stable. However, the combination of easy measures mentioned here can help you reduce the cost component of heating water which, in an average household, represents between 30% and 50% of your total electricity bill.

### Information supplied by:

Eskom, Kwikot, Franke Water Heating Systems and Hellermann Tyton

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