

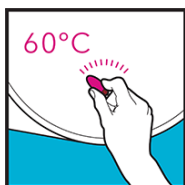


CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD

SAVING ELECTRICITY TIPS

HOT WATER

NO-COST



Turn

Turn your geyser down to 60°C. Turning your geyser down from 70°C to 60°C will see a 5% reduction in your hot water electricity bill. In some cases, 55°C is a good option (but not below that for health risk reasons).

Use less hot water. Tackle excessive use with more efficient habits.

- Do not let the hot water run unnecessarily. Use cold water to wash your hands instead of hot water. Use a basin plug when washing.
- Shower instead of bathing. You will save up to 80% in water and use 5 times less electricity than heating bath water if you take a short shower.

Switch off your geyser when you go away for a few days or more. The element heats up a few times daily if you leave it on. When you get back, give the geyser a couple of hours to heat up again.

Switch your geyser off during peak hours. Less demand on the national electrical grid helps reduce the risk of load-shedding. In winter months peak demand comes in the morning from 6-8am and evening from 5-9pm. In the summer months, demand stays high all day long between those peaks (mostly from air conditioning).

LOW-COST



Wrap

Cover

Fit

Insulate your water pipes and wrap your geyser in a geyser blanket. This prevents heat loss, reducing the cost of electricity needed to keep water hot by R500 or more a year. Blankets cost about R200 – R400; and pipe insulation usually less than R100 per meter.

Fix leaking hot water taps. A dripping tap can waste up to 18 litres of water a day. This could cost you hundreds of rands worth of electricity annually if it's the hot water tap that's leaking.

Install a geyser timer. Set the timing to avoid peak hours on the national grid to help reduce the risk of load-shedding. Timer prices start at around R900 plus electrician costs.

Switch to a low-flow, energy and water efficient aerated showerhead. They're designed to use up to 40% less hot water. To test your showerhead, hold a bucket under the shower spray for 12 seconds. If you collect more than 2 litres, it should be replaced.

INVEST-TO-SAVE



Install

Fit your geysers close to hot water points. This will optimise electricity efficiency.

Install a solar water heater. You can save 25% and even as much as 50% on your monthly electricity costs. Costs can vary depending on the size, quality and technology used, but R15 000 to R35 000 is the typical range. If you don't have savings or access bond finance, there are also rental and financing options available. [If your conventional geyser bursts](#) that's an ideal opportunity to use the insurance pay-out and upgrade to solar.

Install a heat pump. A solar water heater may not be suitable for your household for a number of reasons, such as too many trees shading the roof, dwelling in a sectional title unit or flat, having an unsuitable roof or being in a poor position to get direct sunlight. Heat pumps can be very effective at reducing electricity consumption and at heating water (in coastal Cape Town with cloudy winters, especially), so if a solar water heater is not suitable for your household then we definitely recommend you consider a heat pump.

LIGHTING

NO-COST



Close

Turn off the lights if you leave a room for more than five minutes.

Maximise sunlight. Open the curtains in the morning rather than turning on lights. This will save energy, plus numerous studies have shown that natural light can reduce stress and improve health and productivity as well.

See the "[Heating and Cooling](#)" section for tips on how to use your curtains to help heat and cool your home at no cost.

LOW-COST



Twist

Replace traditional incandescent light bulbs with Light Emitting Diodes (LEDs). Now costing as little as R50, they save 80% to 90% on your electricity used for lighting – the most efficient kind of lighting available. Even burning just 2 hours a day, the best-priced LEDs will pay for themselves in less than a year.

Choose light colours for interior paints. Covering walls with dark colours could double the wattage and therefore energy you need to light a room and dim the effect of natural light coming in through windows. There are also paints which boost reflectivity significantly.

Use solar powered lights in your garden. They rely entirely on energy from the sun and contain a small chargeable battery so they can be used at night – they are easy to install.

Put light only where you need it. Desk lamps, reading lamps and eye-level, under-cabinet fixtures for the kitchen will help you to see what you are doing better, allowing you to turn off unnecessary room lights. Ceiling fixtures often over-light rooms, often because too many downlighters are placed in areas where they're not really needed. Dimmers can help, but they save less energy than you might expect. Try 'de-lamping,' removing a bulb or two.

INVEST-TO-SAVE

Use motion-sensor lights outside. Outdoor lights burning overnight will certainly lead to higher utility bills, but numerous studies suggest they may also light the way for criminals to do their deeds, particularly if high walls shield the property. Infrared motion detector light fittings (that switch on when something moves and stay on for a preset time) are more likely to surprise unwanted visitors, while using less electricity.

Let the sky light dark rooms. If you need lights on during the day, dark and windowless rooms can benefit from light tubes or skylights. In summer, skylight blinds can help avoid overheating.

Renovate to be LED-friendly. LED manufacturers try to accommodate existing bulb styles and fixtures, but a renovation is a great time to let LEDs be LEDs. The technology is perfectly suited to long strips of lights that can be concealed in crown mouldings or under cabinets. Recessed downlights and track lights should be wired for mains voltage, without low-voltage transformers. Dimmable LEDs need dimmers designed for them. For long term best results, use high quality products from reputable brands, and qualified installers.

LEARN MORE

CFLs were a popular low energy light fitting but are rapidly being replaced by more energy efficient LEDs.

Light fittings: CFL bulbs are available for most light fittings e.g. lamps, spot lights, down lights etc. If you require a specialist fitting, visit your nearest hardware store or specialist lighting store.

Dimmers: Look out for Dimmable Energy Saver CFLs at all retailers, trade and depot stores, as well as at leading lighting and electrical outlets. Regular CFLs will not work and using them will shorten the bulb life and void the manufacturer's warranty.

Light glow: CFLs come in a variety of light/glow options. The 'cool' white/'bright' white CFLs are more suitable for kitchens while the 'warm' white/'soft' white CFLs create a more relaxed atmosphere for lounges or dining rooms. Check the labelling and ask the sales assistant.

More about Light Emitting Diodes (LEDs)

Energy-efficiency levels: LEDs are small, solid and extremely energy-efficient light bulbs, far exceeding the efficiency of both incandescent and fluorescent bulbs. A wide range of white-light LED products is readily available on the market.

Installation: LEDs can be used for general lighting but are fairly sensitive to thermal and electrical conditions. Installation should be done by a qualified person.

Lifespan: A good LED product should last up to 50 000 hours. An incandescent bulb only lasts for up to 1 000 hours and a CFL for 10 000 hours. The lifespan of an LED can be increased by placing it in contact with a material that conducts heat away from it.

Costs: LEDs are now cheaper than CFLs so they are definitely the way to go!

HEATING AND COOLING

NO-COST



Wear

Direct

Close

Check how you are dressed before switching on the heater. Cottons are great for summer, but consider putting them away for the winter. Wool, fleece, down and insulating synthetics trap heat much better. Use layers for added warmth and control. We lose a lot of heat through our heads, so use a cap or other head covering. Scarves also make a big difference.

Choose a hot water bottle over an electric blanket. A hot water bottle filled by a 2 000 W kettle running for five minutes uses 0.16 kWh and gives you two hours of warmth. A 200 W electric blanket running for two hours uses more than double the electricity (0.4 kWh).

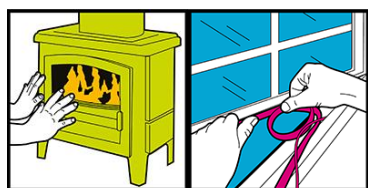
Make your electric blanket more energy efficient. Turn it to the highest setting for a few minutes before getting into bed and then turn it off for the night.

Use your windows wisely. Any north-facing house is already built for passive solar heating, but you have to help. As soon as the winter sun is shining, open all curtains to let the warm sunshine in. But leave windows and doors tightly shut until temperatures peak in the afternoon. That's the time for fresh air. Seal up again before it gets cool in the evening, with heavy curtains or blinds on windows so you don't lose heat. In summer, close curtains of west-facing windows against the hot afternoon sun.

If you must use air conditioners when it's hot, use them economically. Set them to maintain the temperature at the 'Golden Zone' between 18°C and 22°C, but keep an eye on the outside "ambient" temperature and try to minimise the difference from outdoors to indoors – consider notching up the air con a few degrees on a particularly hot day. It will feel cool anyway, use less electricity, and prolong the life of your unit. If your house is well insulated (as in Europe), running an air conditioner all the time may make sense. However, this is not the case with the average Cape Town home.

Though air conditioners are best avoided if possible, if you already own one, they are actually more efficient at heating than at cooling. Compared to ordinary electric heaters, most air-conditioners can generate 2 or 3 times more heat per watt. If located high on a wall, make sure their louvers direct the air toward the floor.

LOW-COST



Light

Seal

Place heating right where it is needed. An electric blanket, hot water bottle or fan heater all direct the heat to warm you up quickly. Infrared, or quartz bar heaters are also efficient as long as you are in front of them. If you must warm a room, invest in a gas heater, or a heater with a short warm-up time and built-in thermostat. Only heat rooms that you and your family will be spending time in, and avoid using underfloor heating.

Eliminate drafts blowing under doors and around windows. Trace their edges with a burning stick of incense or the palm of your hand to find air leaks and block them with self-adhesive 'weatherstripping'. Attach a 'sweep' to the bottom of a door to close the gap to the floor, or use a beanbag 'snake' or 'sausage'. Check the ceiling for gaps where heat escapes, such as the attic hatch. Better insulation of the home makes a big difference to thermal comfort in winter, and reduces the need for heating.

INVEST-TO-SAVE



Lay

Light

Insulate your ceiling. Approximately 40% of heat loss takes place through the roof. Insulation slows heat transfer and makes your home up to 10°C cooler in summer and 5°C warmer in winter, saving up to 16% of the electricity you need annually to heat or cool your home. Roof paints specially formulated to ward off the sun's heat are also available.

Install roof awnings and overhangs. These can help shade windows from the hot sun in summer, while still allowing the warm winter sun in.

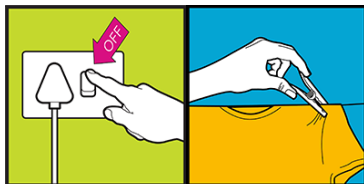
Update old fireplaces. Open fireplaces send most of their heat up the chimney. Modern, closed-combustion fireplaces and wood stoves retain the charm while vastly improving efficiency by controlling the flow of air. Wood pellets from scrap or firewood from suburban tree fellers are also sustainable fuels.

Before purchasing an air conditioner, try a ceiling fan first. They are much less expensive and use as little as 1/10th of the electricity to run, while lowering the apparent room temperature by a few degrees. Fans don't cool the air, but only the skin of the person in their breeze, so turn them off when exiting the room. In winter, use them in brief spurts or in reverse at low speed in heated rooms to push warm air down from the ceiling.

Renovate to allow the heat that gets trapped at the ceiling to escape. Installing high exterior windows and 'transom' windows above the doors between rooms can help heat flow through and out of your home. Whole-house extractor fans suck the heat out and draw in cool breezes at night. If mosquitoes cause you to close windows on summer nights, invest in screens.

APPLIANCES

NO-COST



Press

Dry

Switch off unused appliances. When you leave a room or are done working for the day, turn off the TV, computer screens, etc.

Only use your washing machine once a full load of dirty laundry has accumulated. Automatic washing machines use the same amount of electricity for a full load as they do for a single item.

Use cold-water or lower heat settings as often as possible. Wash bed linen at 60°C (instead of 90°C) to cut back on the amount of electricity you use.

Skip the pre-wash cycle for clothes that aren't particularly dirty. This can cut down hot water usage by up to 20%.

Never overload your automatic washing machine. Overloading will reduce the cleaning action. Varying the sizes of garments in a full load improves the cleaning action by allowing free circulation.

Take advantage of special features on your washer that can save money. For example, soak cycles remove stubborn stains in one wash cycle.

Hang your clothes outside to dry. If possible, avoid using a tumble dryer altogether. Do your laundry on a sunny day, or use an indoor drying rack to dry your clothes.

Remove excess water before putting clothes in the dryer. This minimises the drying time required.

Dry multiple loads of clothes consecutively. Your dryer will be warm already so you'll save energy.

Make sure the lint filter in your tumble dryer is cleaned.

Only iron what really needs to be ironed. Certain clothing will appear ironed with careful folding.

Iron large batches of clothes at a time. This saves the iron from needing to be reheated.

Complete the last of your ironing with the iron switched off. An iron consumes as much energy as ten 100 W light bulbs so let some of that stored energy work for you.

Only use distilled or boiled water in a steam iron. This will keep it clean and energy efficient.

Use specialised appliances for the appropriate tasks, this is the easiest way to save electricity in the kitchen. For example, always make toast in a toaster instead of using the oven.

Ensure the oven door is kept closed until the food is done. Constantly opening and closing the oven door dissipates heat, and electricity is wasted in reheating the oven.

Only use pots and pans that completely cover stove plates. Also keep stove plates and reflectors clean to ensure all the energy is being used to cook the food.

Use a pressure cooker or insulation cooker when preparing foods that take a long time to cook. It will speed up the cooking process and save electricity.

Turn off the stove before you've finished cooking. Hot plates retain heat and will continue to cook your food while saving electricity. Alternatively, bring food to the boil on the 'high' setting and then turn down the plate to simmer until cooked. Keep the lid on the pot to retain heat.

Use the microwave for small to medium amounts of food. Leave the conventional oven for large meals.

When using a kettle, boil only as much water as you need.

Don't open the fridge door unnecessarily or leave it open for too long. Cold air sinks so it literally falls out of the fridge, and so your fridge has to start again. An empty fridge has to work hard to keep things cold so put bottles of water in the fridge as these 'hold onto the cold' – equally, an overfull fridge also has to work too hard.

Let hot food cool down before putting it in the fridge. It will require less electricity for further cooling.

Empty your fridge and switch it off when you go on holiday.

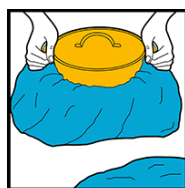
Defrost your freezer regularly. This will ensure it runs more efficiently.

Run the dishwasher only when it's full.

Link the dishwasher to the cold water supply. The dishwasher heats the water itself and only requires hot water for one wash and one rinse cycle. If the dishwasher is linked to a hot water tap, it will draw power for the full duration.

Turn the dishwasher off before the drying cycle. Use a cloth to dry the dishes or let them drip-dry.

LOW-COST



Place

Invest in a front-loading washing machine instead of a top loader. It uses less water and costs less to operate. Also ensure the new machine offers a variety of water temperature settings.

If you're buying a new tumble dryer, choose one with Electronic Humidity Control (EHC). It shuts the machine off automatically when clothes are dry instead of relying on a timer.

Invest in a thermostatically controlled iron to prevent it from becoming hotter than you need.

Invest in a Hot Box or Wonderbag insulation cooker for R300 – R450 and save up to 60% on cooking costs. These boxes and bags insulate your cooking pot so that it retains the initial heat. Foods such as rice, porridge, soups or stews can be brought to the boil on the stove and then placed inside to continue the cooking process. Alternatively, you can also simply wrap the pot in a blanket. The blanket will keep the heat in and the food will continue to cook.

Have the seals in your fridge replaced to keep the cold air in.

When buying a dishwasher, choose a model that uses less water. A water efficient dishwasher uses up to 50% less water than a conventional one, which means 50% less water to heat up.

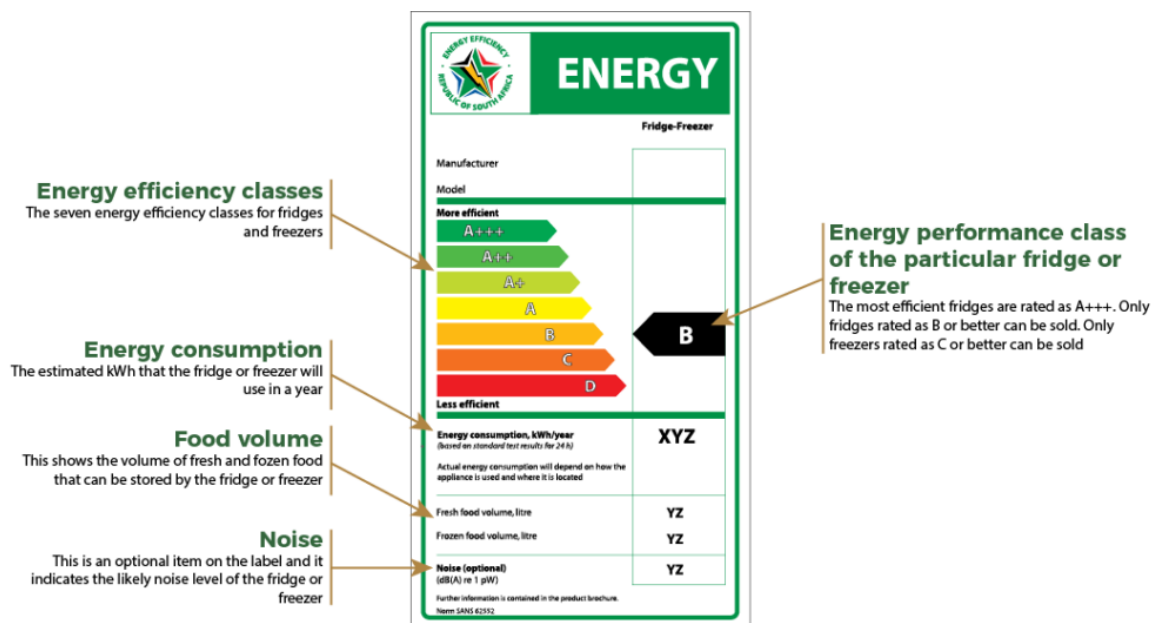
Choose a dishwasher model with a no-heat air-drying feature to save even more electricity, if you can't use a cloth to dry the dishes or let them drip-dry instead.

INVEST-TO-SAVE



Switch

Invest in new energy efficient appliances. As electricity tariffs rise, buying an energy-efficient appliance will pay back in cost savings quicker than before. Look for the [South African Energy Efficiency label](#) and always buy an 'energy smart' model. It's important to note that newer plasma screen TVs tend to use more electricity than older models and LED TVs.



Source : Department of Mineral Resources & Energy

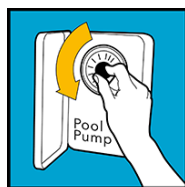
Choose induction cookers for stove-top cooking with electricity, which heat quickly, but also save electricity and reduce the risk of burns. For high-temperature cooking an induction stove uses about 30% less energy than an ordinary hob. Since magnetic fields heat the pots, the stove plate stays cool, but you'll need iron or steel cookware. Take a magnet along when pan shopping. You can buy a single-plate induction cooker for just over R800.

Stove-top cooking with gas has many advantages over electricity. Gas supplies instant heat. And gas stoves are load-shedding-proof. Their green advantage is that

switching from electricity to gas cuts the carbon footprint for those appliances by about half.

OUTDOOR

NO-COST



Set

Reduce the hours on your pool pump. At 10 hours a day, it typically uses about 11% of your electricity and you can halve that. 4 to 6 hours is enough in summer for most pools and just 2 to 3 hours in winter. Every pool is different, so add an hour if the water does not stay clear. Don't operate your pump between 6 – 8am or 5 – 9pm. Avoiding these peak electricity use hours will help reduce blackouts and the need for load-shedding.

LOW-COST

Clean your pool pump filters regularly. A clean filter allows the pump to run for fewer hours but still keeps the pool clean. Use a wall brush and leaf skimmer regularly and take foreign materials out of the strainer basket.

INVEST-TO-SAVE

Buy a more efficient variable-speed pool pump. While most pools have 750-watt and 1 100-watt pumps, these new models use about 150 to 300 watts at their lowest settings. Expect to pay a higher upfront cost compared to an ordinary pump, but you should earn all of that money back within a few years as your utility bills drop. What's more, variable-speed pumps are whisper-quiet and long lasting.

Invest in a pool cover. It will keep your pool cleaner for longer and the water warmer over the winter months. It is still recommended to run the pool filter periodically.