



How to do a home eco-audit

Many companies do professional eco-audits to learn where they can most easily conserve energy, water and waste. My Green Home will show you how to achieve the same benefits with a free home eco-audit.

Energy

Option A: Manual audit

Where are the energy hogs hiding that are pushing your utility bills higher? In the kitchen? At the pool? In the roof space? The Ngewanas sought the answers by doing a manual energy audit. This means checking the wattage of all the lights and appliances and estimating the hours each of them is used per day to see where your energy use is concentrated. If you enjoy maths, calculators or spreadsheets, you can do the same. Instructions begin on page 65 of the [Cape Town Smart Living Handbook](#).

Option B: Eskom's Audit Calculator

Alternatively you can perform a similar energy audit online, saving time by leaving the calculations to [Eskom's Comprehensive Energy Audit Calculator](#). It will spot the highest areas of electricity use in your home and help you target savings.

To prepare to answer the calculator's questions, first walk around your home with a pen and paper, taking notes on the following:

- The number of lights in each room and their wattages
- The approximate size of your fridge in litres
- If you have a pool – the wattage of the pump and the hours it's set to run on the timer
- Your electricity tariff in rands per kWh. See [How to Understand your Utility Costs](#)
- The size of your home's floor space. See [How to calculate your kWh/m²/year energy rating](#)

The calculator first asks you to create an Eskom user account with your email address, then you begin filling in answers about appliances, lights, and other things that use electricity. The calculator can guess the wattage of most appliances. At the end of the process, a pie chart shows approximately how much electricity in your house goes for lighting, geyser, kitchen, laundry, pool, etc. On a table, you will also see suggestions for where you can save.

Don't be surprised if no single category dominates your home's energy consumption. Greening a home requires making changes in several different ways. Even in a usage category that uses only 10 percent of your electricity, you may be able to make significant savings.

Continued on next page.....

Water

South Africa is a water-stressed country, and you may spend as much on water as you do on electricity. There are no local online water-audit calculators yet, but either of two well-constructed, comprehensive water-audit calculators from Australia will help you get to grips with where you may be wasting water. You just provide the calculator with information about your taps, fixtures and appliances and how much you use them.

Option A: for most homes and slow internet

The [Hunter Water calculator](#) is a quick and easy water audit that produces easy-to-read pie charts of a household's water use in categories such as pool, garden, kitchen, bathroom and laundry.

Option B: for homes with irrigation systems and fast internet

The water calculator at [Living Water Smart](#) has fancy graphics that show how your consumption compares with typical Australians in Darwin – think Limpopo Province – and recommended targets for each part of your property. It also has customised results for different garden sprinkler systems and great hints for saving water.

For kids

Get the next generation thinking about the water that goes into the things they might buy or eat with this [Water Footprint guide](#) from Rand Water (excerpted from WESSA's EnviroKids magazine).

Waste

To analyse the volumes your household throws away and set goals for sending less to the landfill, make a few manual calculations. First, estimate in litres how much rubbish you set on the pavement each week, using the following measurements:

- Standard wheelie bin: 240 litres
- Standard dustbin or 750mm x 950mm “municipal size” refuse bags (black): 85 litres
- Tall kitchen swing bin or 600mm x 750mm liner (white): 50 litres
- Standard grocery bag: 16 litres

Next, use the same measurements to determine your weekly volume of recycling and the quantity of garden greens or food waste that goes into composting. Now compare the volumes landfilled to the volumes recycled or composted. Is most of your waste getting reused in ways that benefit the economy and the environment, or is most of it filling up the dumps that add more and more to our municipal bills each year?

Every household varies, but a good goal is to keep the dumped portion of waste to 120 litres, or half a wheelie bin per week for a family of four or five. In fact, many communities around the world have set a 120l limit for households. Looking at the proportions, a good goal is that three-quarters of a home's total waste volume should be recycled or composted.

Your eco-audit is complete, but the job is not. The audit is just the first step toward setting your goals and – most important – acting on them to save! Good luck.