



Saving Tips

Thank you for taking an interest in being more energy efficient! In the face of global warming, pollution, and rapidly declining resources, it is with environmentally conscious individuals such as yourself, that we can begin to mend the damage. If you find this website to be helpful, please share this information with those that are like-minded, and educate those that are not. It is only with a 'green' consciousness on a societal level, and energy efficiency on a global scale, that we can give Mother Nature a fighting chance. It begins with you.

The following is a compilation of a variety of ways with which you can save energy and be more efficient. The tips are divided into 2 sections: the first of which, has tips on how one can immediately save energy, without spending a cent. The second section is a compilation of how to save energy around the house with innovative energy efficient products.

Save Energy Around the House, Without Spending a Single Cent!

The simple truth is; we can all be more energy efficient, with but minor changes in our lifestyles.

Household Electronics/ Lighting

- Unplug electronic equipment that is not in use
 - Cell-phone chargers, televisions, computers, all of these items still use energy when they're merely switched off, so unplug and save!
- When using air-cooling or heating units
 - Close all doors/windows that lead to outside environments or where air-conditioning is not needed
 - Every degree difference in the thermostat setting, equates to significant energy use, adjust accordingly
 - When switching on, instead of having it on full power, adjust to a comfortable level, and allow the units to reach the desired levels gradually
 - Switch on later, switch off earlier! Cooling and heating units use a lot of energy, by shaving an hour off your usage; you could be saving 2-3kWh! That equates to about 3kg's worth of Carbondioxide emissions. Every little bit counts!
 - Regularly check filters on air cooling units: blocked filters can decrease efficiency by up to 80%!
- Turn off lights that are not in use
- Unplug/loosen lights that are not required- we often have more lights than is necessary in a single room

Bathrooms

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- Shower instead of taking a bath!
 - Baths usually require 3-4 times the amount of hot water needed as opposed to showers
 - In the shower, turn off the water while soaping up
- Shower instead of taking baths
 - A 10-15 minute shower uses on average 30-50L of water, a small bath is easily 2 to 3 times that.
- Turn down the thermostat setting on your geyser °C
 - This is usually set at 65-75°C
 - Adjust accordingly with usage; if you find that you seldom run out of hot water, you can definitely save by lowering the temperature setting
 - By bringing the setting down from 70 to 60°C an immediate 14% savings can be realized
 - The thermostat control is usually a simple dial that can be easily adjusted. Usually found on the end of the geyser, where the element is located. A protective cover may have to be removed for access.
 - Geyser temperatures should not be set below 50°C to prevent bacterial growth

Laundry/Dishwashing

- Skip the prewash cycle on washing machines if clothes are not particularly dirty (using up to 20% less electricity)
- Only operate dishwashers and washing machines on full loads
 - Always make sure filters are clear of lint/debris- blocked filters significantly reduce efficiency
 - Ensure that dishwashers are connected to the COLD water supply, the dishwasher to heat the necessary water for the appropriate cycles
- When ironing, iron large batches of clothing at one time- reduces wasted energy in reheating
 - Plan your ironing- iron low temperature fabrics first to reduce waste during warm-up time
 - Switch off early, and finish ironing on stored energy
 - If using a dryer/drying machine, most clothing items would require no ironing if promptly removed from the dryer and immediately folded

The Kitchen

- Operate your refrigerator efficiently: A large energy user that is often inefficiently operated
 - Do not leave doors open for extended periods of time
 - A refrigerator may operate at up to 3 times its normal power usage when doors are open
 - When defrosting food, always defrost in the refrigerator compartment ahead of time
 - Do not place hot foods into the refrigerator straight away, allow food to cool off at least 10-20 minutes before placing in the fridge- this also prevents bacterial growth
 - Remove all unnecessary wrapping on foods before placing in the refrigerator
 - Cover all liquids to be refrigerated- uncovered liquids puts moisture in the refrigerator compartments and promotes frost build-up
 - Do not allow frost of more than 1-2cm build up on the walls, regularly check the side walls, and defrost the fridge if necessary. 2-3 times per year is usually sufficient.

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- Make sure there is at least 15-20cm space behind the refrigerator and the wall: this allows proper ventilation, allowing the refrigerator to operate more efficiently
- Do not overload the fridge- food should be placed slightly apart to allow air circulation
- Ensure correct temperature settings- About 3°C for the refrigerator compartment, and -15°C for the freezer compartment
 - For every degree colder, the energy consumption of the refrigerator increases by about 5%
 - Please note: There are many different types of temperature setting controls; some may only have numbers such as 1 to 6. You may require the use of a thermometer to accurately adjust your refrigerator's temperature.
- When taking extended holidays, clear, clean and unplug the refrigerator
- When cooking, make sure the sauce-pan/frying pan sizes corresponds to the sizes of the heating plate
 - Always cover frying pans or sauce-pans with a lid whenever possible
 - When cooking, the size of the pan/pot should correspond to the plate
- When boiling water, an electric kettle is more efficient
- When heating a small amount of water (for a cup of coffee/tea), the microwave is an efficient alternative

Outdoor/Garden

- Swimming pools: One of the major energy users in the home that is often overlooked
 - Set the pool pump to operate for a shorter period per day
 - Pool pumps are almost always operated for longer than is necessary
 - This optimal time differ from pool to pool, you may need some experimentation
 - Install pool covers that helps retain heat, reduces water loss, and drastically reduces the need for cleaning- pool pumps can be operated for even shorter periods of time
 - Regularly clean the pool pump filter to maintain pump efficiency
- Have lighting only where necessary
- Set shorter outdoor lighting times

Driving

- You don't need a alternative energy car to be an efficient driver (though it certainly helps)
- Accelerate slowly, and maintain uniform speeds for as long as possible/safe
- Avoid unnecessary stop and go traffic
- Avoid idling for extended periods of time
 - Whenever the car idles for more than 10 seconds, it is more efficient to switch the engine off
 - While frequent ignition does place more stress on the car's battery and ignition systems, it is not as much as you would imagine - switching off is still more efficient!
 - Be really careful if you plan on switching off your engine at every traffic light, forgetting to switch your car back on may result in embarrassing rear-end accidents!
 - In cold weather, you do not need 'warm-up' idling time of more than 30 seconds, instead, drive the car immediately with slow acceleration for 10 minutes
- Regularly check to make sure tires are properly inflated- this ensures both safety as well as efficiency

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- Relevant tire pressures are indicated on the side wall of all tires
- Regularly maintain/service the vehicles as per manufacturer recommendations- a well lubricated engine, with clean filters and valves, runs much more efficiently, not to mention more safely!

Energy Saving Tips and Products for the Household by Category

Tips in this section include recommendations on green products and technology. Ready to take the next step in "going green?" Read on!

Please do not hesitate to contact us if you have any queries regarding any of the below products, we will be more than happy to help you in any way that we can.

Cooking/Food Storage

- The refrigerator
 - Make sure the rubber seals/ linings on the refrigerator's doors are intact
 - Compromised linings can drastically decrease efficiency
 - To perform a simple test: close the door on a piece of paper, if the paper can be easily pulled free, the linings probably need to be replaced
 - Check your refrigerator brand and model number before placing your seal/lining order
 - Seals are usually held in place by screws in the corners on top of plastic liners
 - When replacing, simply loosen the screws, slide the old lining out, and replace
 - Apply some baby powder to the newly installed linings, especially hinge areas before you first close the door to prevent sticking and unnecessary damage
 - Ensure no lining twisting occurs at the hinges, you may need a screw driver to hold down the lining while the door is closed. Leave the door shut for 1hr after installation
 - If intending on purchasing a new refrigerator, make sure to purchase one with a high energy efficiency rating- A, A+ or A++
- Cooking
 - Consider using gas for cooking/heating purposes, it is much more efficient than electricity
 - For commercial cooking applications, consider the cutting-edge **Oxy-Hydrogen Generators**
- When boiling water, an electric kettle is more efficient
 - Boil only the amount that will be used, do not boil a full kettle for 1 cup of coffee
- When heating a small amount of water (for a cup of coffee/tea), the microwave is an efficient alternative

Domestic Heating/Climate Control

- Make sure your home is well insulated
 - This will make your home warmer in winter, and cooler in summer
 - There are many home insulation materials affordably and widely available
 - In addition to insulating materials that can be installed inside the walls and ceilings, there are also heat reflective paints that can be very effective in helping reduce energy costs
- Seal draughty doors, windows and walls
 - A simple test to locate small air gaps in your windows, doors and walls: close all doors and windows that lead to outside environments. Slowly pass a wetted hand closely to walls and windows where you suspect air gaps may be. Sudden coolness on your hand would alert you to the air gaps.

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- To locate smaller, hard-to-see air gaps, enlist the help of a friend, and shine a torch/flashlight on suspected areas of air gaps, and look for escaping light on the other side
- A variety of sealants, caulking and plumber's putty are available for this purpose, simply check with your local hardware stores
- Don't overlook the doors to the attic

Water Heating- accounts for 30-50% of household energy costs

- Make sure your geyser is well insulated by installing a geyser blanket
 - Better insulated geysers translates to less energy used to maintain high temperatures
 - A very affordable investment, that can increase a geyser's efficiency by about 5-10%
 - Geyser blankets should be made with flame-retardant materials
- Install aerators or efficient nozzles for your showers/taps
 - An aerator introduces bubbles into the water stream, lowering water consumption by up to 30% with no significant impact on normal water usage
 - Another affordable investment
- Install a **Geyser Energy Management (GEM)** system
 - Geyser energy management systems are affordable while providing a significant amount of savings
 - Controls the energy used by the geyser, as well as provide remote control (with addition of a GSM or GPRS module)- great for holiday homes/chalets
 - Solarise GEM units provide 45.7% reduction in geyser energy use as tested Eskom
 - Affordable, with expected payback periods of 1-2 years
- Consider taking the next step, and install a **Solar Water Heater**
 - These systems will significantly decrease the operating costs of your geyser, generally saving 30-50% of monthly electricity bills (80% of geyser usage).
 - Invests in Solar Water Heaters generally have payback periods of between 4-6 years
 - For maximum savings, install both a Solar Water Heater, as well as a Geyser Energy Management system
- Pool heating
 - Heat pumps are a very energy efficient heating option
 - Higher initial costs, but with lower operating costs and high convenience
 - Solar pool heaters are another great alternative
 - While very efficient, heating may be unpredictable
 - Install pool covers: helps retain heat, reduces water loss, and drastically reduces the need for cleaning- pool pump can be operated for even shorter periods of time

Electronics

- Whenever purchasing new electronic equipment, such as televisions, always take a look at its energy ratings and compare with other products of the same category
- Consider installing **Wind Turbine** and **Photovoltaic (Solar Electric)** systems
 - Building Integrated Photovoltaic (BIPV) technology integrates solar modules directly into building materials- thin film PV panels, with varying degrees of opacity can directly replace window panes

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- New wind power technology, such as the **FGD Wind Turbines**, require lower wind speeds to generate power, less space, and operate almost silently: eliminating one of the largest draw-backs of traditional wind turbine systems - noise pollution.
- Relatively high investments, consider utilizing these technologies for portions of your electricity needs, such as garden
- Most efficient when used in conjunction with other energy efficient equipments, such as **Solar Water Heaters**, and **Efficient Lighting**
- Use rechargeable batteries where-ever applicable
 - Consider **Alkaline Battery Chargers** that can recharge normal batteries, significantly reducing the amount of AA/AAA batteries that you use

Lighting

- Accounts for 20-30% of household energy costs
- Make use of small lamps/night lights, and only use 'main' room lighting when necessary
- Make use to motion sensing lighting, or timers
 - Motion sensing lighting can be ideal for both outdoor as well as indoor environments
 - Making effective use of timers for outdoor applications- shorten the duration, and/or lessen the amount of lights to only those that are absolutely necessary
- Switch to efficient lights
 - Traditional incandescent lights are extremely inefficient, and have short life-spans of less than 1,000hrs
 - Compact Fluorescent Lights (CFL's) are much more efficient, and lasts between 6,000-10,000 hours
 - Please note: CFL's contain mercury and require careful recycling! If not disposed of properly, a CFL bulb could do a lot of harm to the environment: The mercury contained within a single CFL bulb is enough to contaminate 1 ton of soil!
 - **LED** lights are another great alternative to lighting that, while costing more than incandescent or fluorescent lights, have much lower running costs and have several times longer life-spans (50,000 hrs)
 - With 12hr/day operation, 50,000hrs equates to more than 11 years!
 - When replacing existing fluorescent lighting fixtures (or installing new ones), use **efficient fluorescent fittings** where applicable.
- Lighting environment
 - When painting your home, be sure to select paints with high albedo ratings- they are usually lighter in colour and reflect a lot more light- reducing your lighting needs
 - Similarly, plan and choose the materials of surfaces in areas where clear lighting is needed- such as kitchens
 - Use reflective counter tops, and lighter paints, the amount of lighting that can be saved will surprise you!

Did you find this information useful? Please let us know!

Your opinions and suggestions would be greatly appreciated.

For more information on any of the above recommended products, please **Contact Us**.