



QEnergy
Quality energy, your way

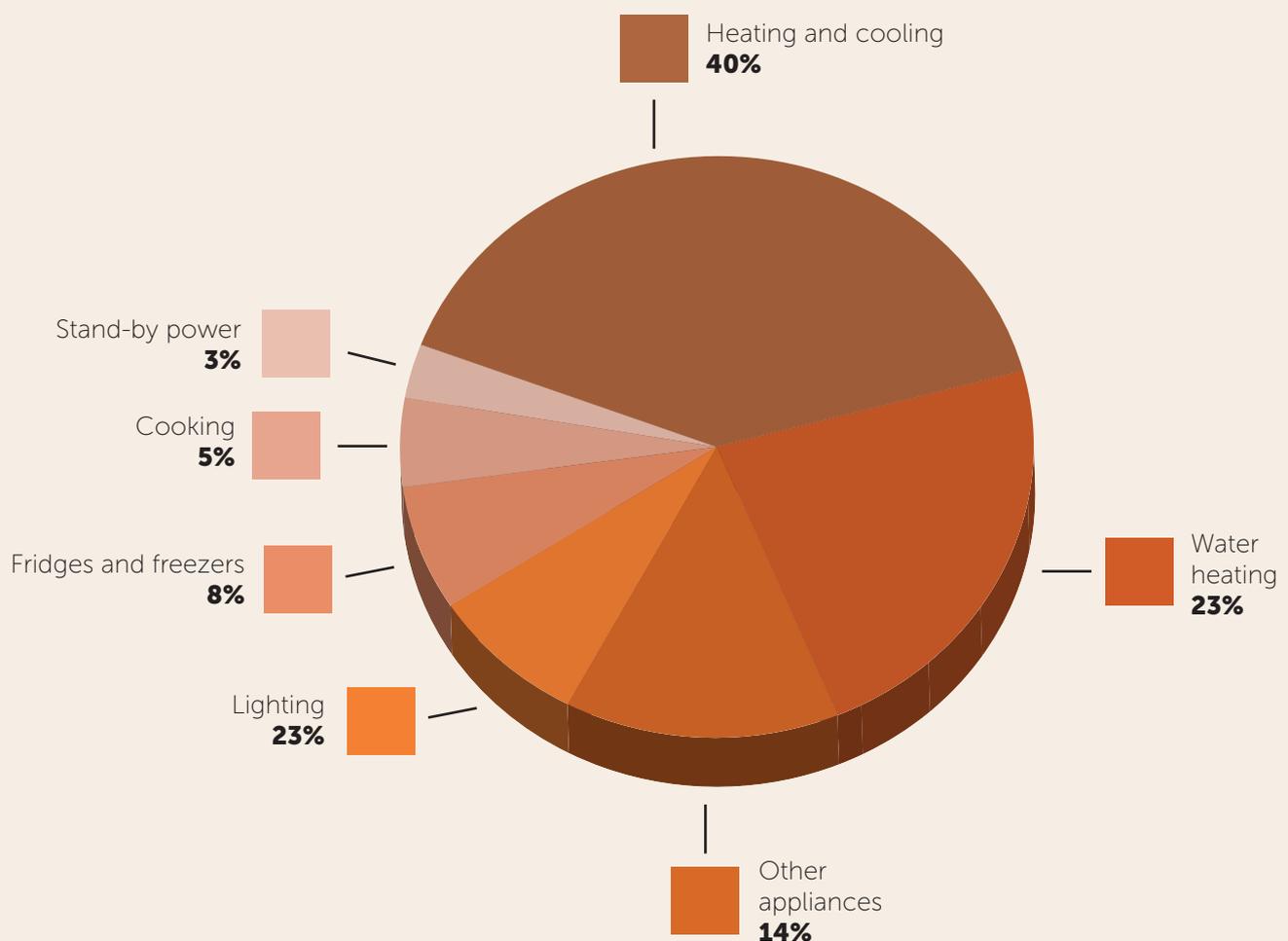
easy ways to save energy

Tips to reduce your energy use

why save energy

Saving energy can be as simple as turning off a switch rather than leaving an appliance on stand-by. The less energy you use, the less you have to pay for. You'll also be helping the environment by reducing the greenhouse gas emissions associated with energy use.

To use less energy - start by looking at where and how you use it now.

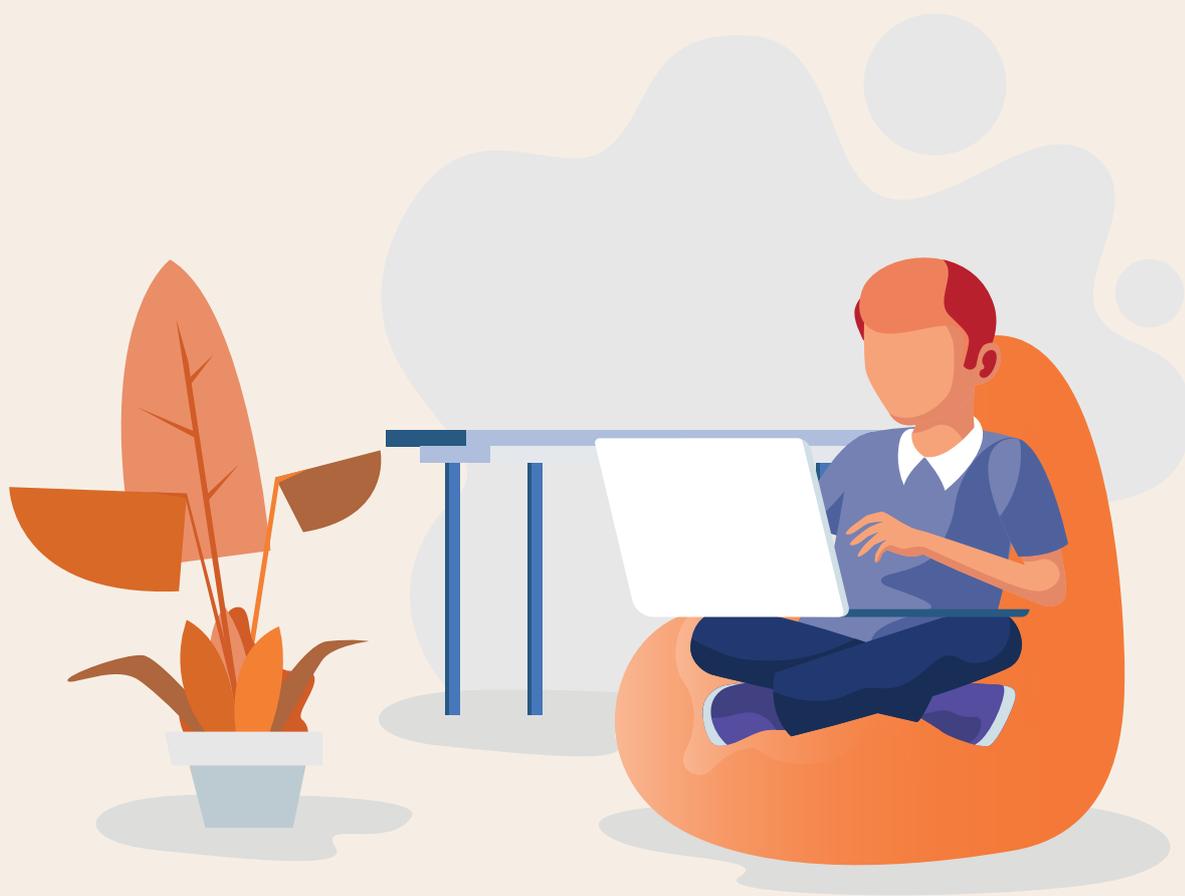


Did you know? Everyday, Australians use enough electricity to power eight billion TVs or to charge over 110 billion mobile phones. That's about ten million households and businesses chewing through over half a million mega-watt hours of electricity every single day. We also use enough natural gas to boil water for 36 billion cups of tea.

*TVs calculated based on average consumption of 40-inch screen LED TVs 10 h/day test standard from energyrating.gov.au. Light bulbs calculated based on use of 60 W bulbs. Mobile phones calculated based on Electric Power Research Institute report.

energy saving tips for your home

The following practical tips can help you save on your energy bill.



any time

Turn off appliances at the powerpoint when you're not using them

Use less hot water and have shorter showers

Upgrade your home insulation, windows and blinds to heat-proof your house

Take advantage of the sun and rely on natural light as much as you can each day, rather than automatically turning on the lights



autumn and winter

Insulate the roof, walls and floor, seal off draughts
Let in winter sun and draw curtains at night
Dress for the temperature by putting on a jumper and warm socks
Zone your home and only heat the rooms you are using
Use doors to prevent heat escaping into unused rooms



summer & spring

Fans should be the first choice for cooling
For efficient air conditioning, the house or room should be sealed and highly insulated with bulk and reflective insulation
Windows must also be shaded from the summer sun
Zone your home by cooling one part of your house and cut down on cooling in other areas
Close up your house during the heat of the day and open it up at night to cool it down naturally



draught-proofing

Reduce the costs of winter heating and summer cooling by making sure your house is well insulated and draught proofed

Fit draught stoppers and weather sealing tape to external doors and doors to high ventilation areas
Fit weather sealing tape to windows
Avoid vented, recessed downlights, which can increase air leakage
Seal any cracks or gaps in floors, walls and ceiling with a filler
Install exhaust fans
Use a chimney damper when the fireplace is not in use



be bushfire ready

Keep in mind that the peak fire season varies depending on where you live in Australia. Check with the Bureau of Meteorology to find out when the fire risk is highest in your area.

Install fine metal mesh screens on windows and doors
Fit seals around doors and windows to eliminate gaps
Enclose the areas under the house
Keep lawns short and gardens well maintained
Cut back trees and shrubs overhanging buildings
Clean up fallen leaves, twigs and debris around the property



in the bathroom and laundry

Consider using warm or cold water settings rather than hot
Drying clothes costs nothing if you use the sun
A clotheshorse can be used in a spare room or near a heater
Encourage household members to take shorter showers
Always wash full loads in washing machines and try to use the fastest cycle



in the kitchen

When cooking, do not overfill pots with water. Use the minimum quantity of water needed and keep the lid on
Depending on use, cooking equipment should be serviced twice a year to ensure it is always working at peak efficiency. Also, regularly checking seals and hinges will alert you if equipment needs repair to ensure maximum efficiency
Keep dishwasher and dryer filters clean
Smaller appliances like kettles, coffee machines, crockpots and toasters are more efficient than using the stove
Keep the fridge out of direct sunlight and away from heat sources



in living areas

Switch off TVs and home entertainment systems at the wall
Turn off lights when you leave a room



lighting

Switch to energy efficient lighting like compact fluorescent or LED bulbs as an alternative to incandescent or halogen lighting
Turn lights off in areas of your home that are not being used
Use light coloured paint on interior walls, ceilings and other surfaces in your home
Locate windows and skylights to allow natural light inside



buy lumens, not watts

Lumens let you buy the amount of light you want. So when buying your new bulbs, think lumens, not watts. The brightness, or lumen levels, of the lights in your home may vary widely, so here's a rule of thumb:

- To replace a 100 watt (W) incandescent bulb, look for a bulb that gives you about 1600 lumens. If you want something dimmer, go for less lumens; if you prefer brighter light, look for more lumens
- Replace a 75W bulb with bulb that gives 1100 lumens
- Replace a 60W bulb with bulb that gives 800 lumens
- Replace a 40W bulb with bulb that gives 450 lumens

energy saving tips for your businesses

The following practical tips can help you save on your energy bill.

office

Encourage employees to turn off all office equipment after office hours and for weekends

Turning equipment off at the power point will reduce electricity usage to zero

Conduct regular maintenance on all office equipment to keep them running efficiently

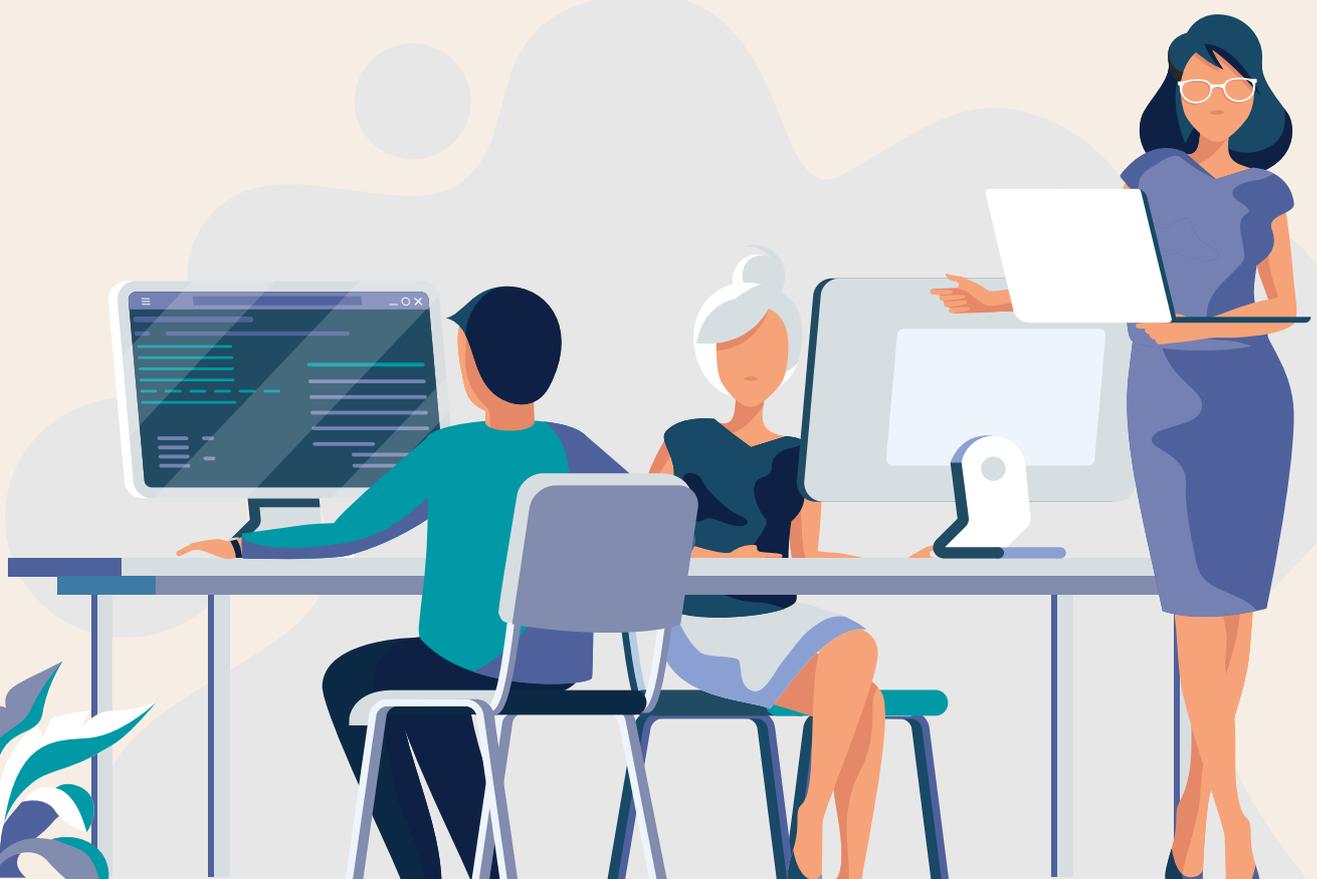
Have computers set to go to sleep automatically after 30 minutes of inactivity

Laptops typically consume less than half the energy of a desktop computer

Upgrade computer monitors to LCD as they have a greater efficiency than older tube monitors

The smaller the monitor screen, the greater the energy efficiency

Photocopiers use more energy each time you start, so run all your print jobs at once





air conditioning and heating

Ensure you are using the right size system for the area you are cooling/heating

Encourage employees to close doors and windows and draw blinds

Switch off heating/cooling when the office is empty

All systems should be serviced on a regular basis to maximise efficiency

Insulate windows, walls, pipes and boilers

Position thermostats away from sunlight, draughts or machinery that emits heat



in the kitchen and refrigerators

When cooking, do not overfill pots with water and keep the lid on

Depending on use, cooking equipment should be serviced twice a year

Regularly checking seals and hinges will alert you if equipment needs repair to ensure maximum efficiency

Keep dishwasher and dryer filters clean

Always wash full loads in both dishwashers and washing machines and try to use the fastest cycle

Smaller appliances like kettles, coffee machines, crockpots and toasters are more efficient than using the stove



hot water

Check the thermostat on your hot water system is set at a temperature that is appropriate for its use

If your business does not rely on hot water, turn the system off



lighting

Encourage employees to turn off all lights, including show room and signs, after business hours

Install motion sensor lights in areas not regularly used, such as store rooms and bathrooms

Remove tubes from fluorescent fittings if there is more light than needed

Replace light fittings with low energy bulbs, particularly in areas where the lights are on for long periods

Clean light fittings regularly to ensure they are used to the optimum



heating, ventilation and air conditioning (HVAC)

HVAC optimisation looks for the best ways of using existing systems, rather than opting for large-scale equipment upgrades and replacements. Optimisation can be done by:

- changing algorithms
- altering control schedules and set points
- carrying out minor mechanical repairs and alterations

HVAC optimisation will reduce your energy bills

By taking action you could save up to 50% of your total HVAC energy use, or up to 80% of energy use in individual HVAC systems. In many instances, optimisation can provide immediate reductions in energy usage and costs. Other benefits can include:

- more comfort for a building's occupants
- improved reliability of systems
- reduced maintenance costs
- improved building performance, as recognised in rating schemes such as National Australian Built Environment Rating System (NABERS) and Green Star.



energy efficient lighting

Upgrading your lighting system can help your business save money on energy use. Some businesses use up to 50% of their overall energy use on lighting. Switching to a more efficient lighting system can:

- reduce your electricity bill
- reduce the need for costly maintenance
- improve safety and conditions at your premises.

what is best practice energy efficient lighting?

It is important to review the lighting operations of your facility in a holistic manner. Some steps are to:

- assess the natural light available and the potential to make more use of it in open spaces such as warehouses through devices such as skylights
- link artificial light use to natural light levels (daylight linking), using sensors and smart control systems to minimise energy use
- assess options for zoning, de-lamping, dimming or multilevel switching to reduce energy consumption
- identify low activity areas and assess the use of occupancy sensors
- review the areas (i.e. the zones) in your business with discrete lighting controls, and increase the number of zones (if appropriate) to allow lights to be turned off when areas are not used

- identify lights that could be upgraded to more energy efficient options
- assess energy efficient lighting options available to you and the potential savings for your business



battery storage

Businesses can reduce their running costs by using battery storage:

- to get maximum benefit from a solar photovoltaic (PV) system
- to optimise usage in relation to time-of-use tariffs
- to reduce capacity charges

Businesses can also use battery storage to provide back-up power, to avoid paying for an expensive upgrade to grid infrastructure, to trade energy on the wholesale market or as part of an off-grid power supply system



measure your **office energy use**

An energy assessment can reduce your businesses' energy use, save money, improve productivity and provide opportunities to innovate. You may be able to conduct your energy assessment in house. If you don't have the skills within the business to run your own assessment, many external experts or energy services companies will do all or part of it for you.



d-i-y

- Gather the last 12 months of billing data. If this information isn't detailed enough, give us a call: we may be able to provide more specifics. While billing data may not answer all your questions, it should uncover gaps or identify some of your company's higher-energy use processes. Consider hiring a temporary meter (for short-term use), or installing your own meters to capture specific operating periods. Don't forget to factor in daily, monthly or seasonal variations when you are analysing the results.
- Analyse your energy baseline. This baseline will clarify the relationship between energy costs to business output. Common analysis techniques include:
 - o track energy use over time to determine energy use patterns (consider seasonal, monthly, weekly, daily or hourly usage)
 - o X-Y plotting energy use versus production or other parameters, and
 - o benchmarking energy performance to reveal whether a process, facility or business unit is operating at optimum performance level, or to draw comparisons between sites
- Track your results. Make sure you close the loop by tracking your progress and any improvements in your company's energy use over time you'll have great data to share across your business (success stories are an excellent way to build support for continual energy savings)



get an audit

There are benefits to getting an audit done by an energy expert.

- It is a good option if you want an accurate real-time reading for all plug-in and hard-wired appliances
- It is recommended for businesses with annual electricity bills of over \$5000
- Most consultants will give you an action plan with details on how to cut your energy use

Need help? Please contact one of our Energy Specialists from Monday to Friday, 9am to 6pm on **1300 QENERGY** or visit **www.qenergy.com.au**.