Electricity in the home

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ERGON ENERGY

Queensland Government

Contents

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Introduction

This booklet explains some of the simple things you can do to make using electricity in your home as safe as possible, such as installing safety switches, maintaining your electrical equipment and making sure everyone in your home understands how to be safe with electricity.

Never attempt to do your own electrical work. There are standards and rules for installing electrical cabling and equipment in any home, which is why only licensed electrical contractors (electricians) are legally able to do it.

However you should know where to turn the power off at the main switch (or switches, if there are several tariffs being used on the property) on the electrical switchboard, and how to shut down a solar power system.

Home electrical safety checklist

- [ ] You have had safety switches installed and you test them every three months.
- [ ] You always use a licensed electrician for electrical work.
- [ ] You arrange a check of your solar power system every year.
- [ ] The manufacturer's instructions for use of electrical equipment are easily located.
- [ ] An electrician has checked the safety of power poles on your property in the last five years.
- [ ] The ceiling insulation does not cover your downlights.
- [ ] You always turn the power off before you go into the ceiling space.
- [ ] There are no damaged power points or switches in your home.
- [ ] When not in use, accessible power points have plastic safety plug covers in them to protect young children.
- [ ] You throw away damaged electrical appliances and leads (or have them properly repaired).
- [ ] There are no electrical appliances used in wet areas or near pools.
- [ ] Your home's earth stake is in good condition.
- [ ] You are aware of overhead powerlines – especially when using ladders.
- [ ] Your outside party lights are suitable for external use (they're not for internal use only).
- [ ] You teach your kids about being safe with electricity.

Electricity in your home

Electricity comes into the home via overhead service lines or underground electric lines. Your electricity usage is measured at a meter box, before the main feed goes to a switchboard of circuit breakers or fuses that control the various electrical circuits in your home.

Your electricity supplier is responsible for the electrical power connections, but they are not responsible for any infrastructure, cabling or power poles beyond the connection point.

At your switchboard, there must be a switch labelled 'main switch' that will turn off all power and lighting circuits in your home.

Sometimes a separate tariff will power pool pumps or hot water systems, and this will have a separate switch. Any installed safety switches will be on your switchboard and, if your house has a solar power system, there will be a nearby inverter.

Your home will also have an 'earth stake' in the ground outside, with an earth wire attached. The stake can dissipate a static discharge, such as a lightning strike, directly to earth. You should not remove or tamper with this stake and you should have it checked periodically, especially for corrosion.

Electrical surges

As the consumption of electricity varies it can cause fluctuations or electrical surges. They can also be caused by lightning strikes, damage to power poles, powerlines or grid transformers. Electrical surges can damage your sensitive electrical equipment, especially computers, TVs, DVD players and sound systems.

Devices such as surge protectors can help extend the life of your electrical equipment. A surge protector should not be confused with an electrical safety switch, which has a different purpose.

Power surges to electrical equipment from lightning strikes could cause an electric shock if you are using that equipment at the time. During a storm, it is best to avoid using sensitive electrical equipment, fixed line telephones or handsets/headsets connected to a telephone or computer.

Dull or flickering lights may indicate a power surge and, if it continues, you should call your electricity supplier on the numbers at the back of this booklet.

Safety tip

Equipment that does not work properly after a lightning strike may have been affected and should be checked out by a licensed electrician or authorised manufacturer's repairer.

Concealed cables

One of the greatest risks to home renovators is failing to identify where live electrical cables are located in wall cavities. In some cases, cutting holes or driving screws or nails into walls can damage the insulation on a cable within the wall, which could result in an electric shock or fire.

Before you begin working on any walls:

- Find out where electrical cables are located. The position of light switches, power points and split system air conditioning units may help. Voltage detectors are available which can detect live cables, but you should not solely rely on them.

Safety tip

Before you begin knocking down walls or drilling into them, turn off the circuits that are close to where you're working. Only turn these circuits back on once you've completed all work. If the backs of wall switches, power points or other electrical parts are left exposed do not turn the power back on until the wall has been repaired to protect the electrical parts.

Home renovations

Always take care when doing any home renovations, even if they do not directly involve electricity, as there may be electrical risks present.

Never do your own electrical work. Even if you think you know what you are doing, if you are unlicensed, it is dangerous and illegal. Besides risking an electric shock, you could cause an electrical fire that could invalidate your home insurance.

Always have a licensed electrician do your electrical work, including installing a new power point or light, making an extension lead or installing electrical cabling.

Homeowners are restricted to doing things such as changing a light bulb, fluorescent tube, fluorescent starter or fuse and resetting a circuit breaker or safety switch.

It is not against the law for a homeowner to purchase electrical accessories or appliances that need to be hard wired, but a licensed electrician must install and connect them.

Safety tip

Circuit breakers and safety switches should only be reset after first checking for damaged or unsafe electrical appliances or a reason why the safety switch or circuit breaker was triggered.

Is my electrician licensed?

Anyone who does electrical work in Queensland must have an electrical work licence or an electrical contractor licence (one of the contractor's licensed electricians can do the electrical work).

Legislative requirements and technical standards outline how electrical work must be done. Always ensure that you receive a certificate of test with each job. The electrical contractor must provide this to the customer and include:

- details about the electrician
- details about the electrical equipment, electrical installation or the work
- a statement certifying the electrical equipment or electrical installation is electrically safe.

Licensed electrical contractors are required to meet specific insurance requirements including having a minimum of $5 million public liability insurance, with a $50 000 consumer protection component.

You can check your electrician's licence to confirm it is valid and current before they do any work using the electrical licence holder search at electricalsafety.qld.gov.au.

If you think the work completed by an electrical contractor or electrician has not been completed correctly, please contact the Electrical Safety Office.

Figure 1 *Typical switchboard with the main switch, safety switch with test button, and four circuit breakers.*

Safety switches

The risk is real. One safety switch may not be enough.

Safety switches protect you, your family and anyone visiting your home from electric shock. They turn off the power in a fraction of a second if a leakage of current is detected. This can happen if there is a faulty power point or electrical appliance, or you accidentally hit a live cable while drilling into a wall.

To see if you have safety switches installed at your home, look inside your switchboard for a 'Test' or 'T' button near the circuit breakers. The test buttons can be various colours and range in size and shape. They could also be labelled 'Safety switch', 'ELCB' or 'RCD'. If you are unsure, have your electrician check which circuits are protected.

Even if your home has a safety switch installed, one may not be enough to protect you from electric shock. A safety switch only protects you if it's on that circuit. You should consider having safety switches installed on all circuits in your home, including power points, lights, air conditioning, oven, hot water and pool equipment circuits, even if they are on a separate tariff.

Talk to your electrician to make your home as safe as possible.

Safety switches can prevent a serious electric shock, but they are not a substitute for proper electrical maintenance and safe practices.

Safety switches and circuit breakers

Safety switches are often confused with circuit breakers and fuses, but they perform very different tasks. Safety switches monitor the flow of electricity through a circuit and turn off the power in a fraction of a second if a leakage of current is detected. They provide personal protection against electric shock.

Circuit breakers protect an electrical circuit by quickly cutting power when there is a high current fault or overload that may cause a hazard such as a fire.

Safety tip

To be as safe as possible, home owners and landlords should consider having safety switches installed on all circuits including lights, air-conditioners, stoves, hot water systems and pool equipment, even if they are on a separate tariff.

What are my legal obligations?

The Queensland Government has a longstanding commitment to increase electrical safety in the community by requiring the installation of safety switches in domestic premises. For example:

Wiring standards

If your home was built before 1992 there may have been no safety switches installed. However for homes built after 1992, with some exceptions to circuits supplying refrigerators or food freezers, safety switches became compulsory on all power points. In 2000 lighting circuits in new homes also required safety switches.

Sales and property title transfers

Since 2002, when a home is sold, it either has to have safety switches fitted to the power points or the buyer has to have them fitted within three months of the property transfer date. The seller must declare on the sales contract and Form 24 Property Transfer whether there is a safety switch present. This applies to any title transfer, not just sales (e.g. title transfer as part of settlement of an estate). If you are looking to buy or sell a home talk to your real estate agent or solicitor about these requirements.

Rental properties

Since 2006 domestic rental properties such as homes or flats, have required safety switches to be fitted to the power points. If a property is rented out and does not have safety switches installed, the owner must ensure that they are installed as soon as possible.

Additional electrical installation work

Since 2002 licensed electricians have not been permitted to perform electrical installation work on a home that did not have safety switches fitted to the power points, unless the work also included fitting a safety switch to the power points (some exceptions applied including emergency situations or safety reasons).

Not sure?

The types of circuits protected by safety switches in your home will vary depending on the age of the home, whether it has been sold since 2002, rented out since 2006 or had other electrical installation work carried out since it was built. If you are unsure as to whether your home complies with the requirements for safety switches, contact your licenced electrical contractor.

Test your safety switch every three months

Test your safety switches every three months to ensure they are working properly. Follow these simple steps:

- Let everyone know you are about to test your safety switches, especially if they're using a computer or recording something on TV – the testing process will cut power to those circuits connected to the safety switch.
- At the switchboard, press the 'T' or 'Test' button located on the safety switch, if it flicks off and cuts the power, it is working. Check to see which lights or appliances are now off – these are protected by the safety switch. If it has not cut the power to the connected circuit then you are no longer protected and you should talk to your electrician as soon as you can.
- After testing, turn the safety switch back on. Depending on the safety switch type, push it back upwards or twist it into the 'on' position. For circuits with a refrigerator or air conditioner, wait for two to three minutes before resetting to avoid possible appliance damage.

If your safety switch 'trips' during normal household electricity use there may be a fault. Reset the safety switch and if it trips again, seek further advice from your electrician.

Visit electricalsafety.qld.gov.au to view short films about how to test your safety switch and what to do about nuisance tripping.

Safety tip:

Hard to remember when to test your safety switch? A good reminder is to do it every time you receive your quarterly electricity bill or rates bill. You could also add a reminder to the electronic calendar on your smartphone or PC.

Portable safety switches

A portable safety switch unit is ideal when permanent safety switch protection is not available. Always push the test button before use to make sure it is functioning correctly.

Ceiling spaces

There are serious electrical safety risks in your ceiling space as many electrical cables are up there.

There is one simple thing you can do to make it safer before you go up into the ceiling space — turn off all the main power switches at the switchboard first.

Some electrical equipment, such as hot water systems or stoves, may have a separate control switch for that tariff, so it is safest to turn off all the switches at the main switchboard.

Once you have turned the power off, secure the main switches in the 'off' position or label them so no one turns them back on while you are working up there. You should also let someone know you are going up into the ceiling space.

When you are up in the ceiling space, even with the power off, avoid contact with electrical cables as some may still be live, such as the service line or a solar power system cable that are not controlled by the main switch on the switchboard. Take care not to damage any cables or other electrical equipment in the ceiling space or cause ceiling insulation or debris to move near any downlights, which may later cause a fire.

Using torches and cordless power tools will avoid the need for mains power when you are in the ceiling space. However, if power is required to complete the task, turn off all circuits except the circuit supplying the power point outlet you plan to use and make sure it is protected by a safety switch. Test the safety switch before you enter the ceiling.

Safety tip:

Add a reminder sticker to your switchboard and manhole so you remember to switch off all power before you enter the ceiling space. You can order a *Stay safer up there, switch off down here* brochure and sticker via electricalsafety.qld.gov.au.

Solar power systems

Solar power systems (also known as solar photo-voltaic or PV systems) have two main parts — the solar panels on the roof, which convert the sun's energy to direct current (dc) electricity, and an inverter that converts dc current into 240-volt alternating current (ac) supply for use in your home.

Safety tip:

Never connect a portable PV system or generator to your home's fixed wiring unless you have it installed by a licensed electrician. PV systems that are not installed correctly are a serious fire or electrical risk.

Have your solar power system inspected, cleaned and maintained every year to ensure safe and efficient operation. Have an annual inspection by your electrician or solar panel installer who can repair any damage, fix any loose fittings or replace any exposed cables to keep the system working to its optimum. Never attempt electrical repairs yourself.

A solar power system's solar panels will continue to generate power during the day, even after the main power has been disconnected, or the system has been shut down and turned off at the switchboard. Take care whenever you are near the panels and it is best to use experts who understand the dangers involved.

The inspection should check for:

- panels that may have cracked or chipped glass, discolouration or other obvious defects

- panels and supporting frames that are not secure or have damaged connections
- any faults reported on an inverter's display panel (refer to the manufacturer's manual for advice)
- any debris blocking cooling vents to the inverter
- any switch showing discolouration, obvious defects or being hot to touch
- signage in place that clearly displays the shut down and isolation procedures
- deteriorating parts of the system, especially cables, connectors or isolators.

In an emergency

Solar power systems can pose a risk if damaged during a storm, flood or fire.

Should you need to shut the system down in an emergency, follow the shutdown procedures which should be located at the inverter and/or on the main switchboard. Do not attempt to turn off a solar PV system if any of the components of the system are wet or damaged or internal wires are exposed.

If your system has been damaged, or you think it may have been damaged, contact your electrician or installer for advice.

Wet areas and swimming pools

Regardless of whether it's a pool, kitchen, laundry or bathroom, water and electricity do not mix. Bare feet and wet skin can make you more susceptible to electric shock. If you are in a pool, even a small shock could lead to drowning due to loss of muscle control.

Using electrical appliances near a pool that are powered through an electric lead is not a good idea. Either move them away from the pool, use battery powered devices or have appliances such as lights hard-wired into a circuit.

Using electrical appliances in the bathroom can be dangerous if the appliance falls into water or it is affected by moisture in the air.

Follow these simple tips to ensure the safe use of electrical appliances near water and the safety of your family:

- Never use any electrical appliance near water or touch anything electrical with wet hands.
- In the bathroom, switch off and unplug all portable electric appliances after use and store in a location where they will not get wet or damaged.
- Do not use portable heaters in bathroom wet areas — it is best to have a strip heater or a ceiling unit installed by your electrician.
- Do not use portable power boards or double adaptors in laundries or bathrooms.
- If an electrical appliance that is not designed for use in water gets wet, or gets water inside it, have it checked by an electrician or manufacturer's authorised repairer. Low cost equipment may not be repairable and should be disposed of safely so it cannot be reused.

- Do not use extension leads or power leads near outdoor wet areas, unless they are specifically designed for external use.
- Wear rubber or plastic-soled shoes when using electrical appliances in laundries, on concrete floors or outdoors.
- Only use a licensed electrician to install and maintain your pool's wiring and electrical equipment. Talk to them about the safest locations for power points and electrical equipment in a weatherproof structure and always keep the protective and waterproof covers in place, except during maintenance.

Safety tip:

Electric high pressure water cleaners need special attention when being used to ensure you do not spray onto outdoor electrical equipment, power points or light switches. Check the power supply cord is not damaged, squashed or left lying in a pool of water.

Electrical equipment and appliances

Power points, double adaptors and power boards

Power points are usually at a low level, within easy reach for young children. If young children are around your home, consider using plastic safety outlet plugs to stop them from inserting objects into power point sockets.

If power points are likely to be exposed to the elements, have weatherproof power points and switches installed. Only use power boards rated for outdoor use, and consider protecting them from the weather and possibility of contact with splashing water from rain or sprinklers or the like.

Never overload a power point by 'piggy-backing' with multiple double adaptors. If you need more outlets, use a power board or ask your electrician to install extra power points.

Only use power boards with low power items like televisions, videos and stereos and not with high power items such as room heaters, clothes dryers and washing machines.

Do not use power boards or double adaptors in wet areas such as laundries and bathrooms and do not leave power boards covered with a mass of power leads, clothes, papers or other clutter.

Consider replacing old power boards that do not have an overload cut out (a push button near the supply cord entry).

Extension leads

Different types of leads are available depending on the required use. Always use heavy duty leads outdoors. If you are using power tools or high-pressure water hoses, then the leads to these items should be suitable for outside use.

Be aware of where extension leads are lying when using electric mowers, brush cutters, line trimmers or hedging tools, or placing power tools on the ground such as circular saws or angle grinders, so you do not accidentally cut the lead. Always use a circuit with a safety switch.

Extension leads should only be used temporarily. If you need power at a different part of the room or in a different room consider asking your electrician to add more power points.

Never make an extension lead yourself. It is illegal and an incorrectly wired extension lead can cause a serious shock.

Simple safety tips include:

- not running leads through doorways or windows
- protecting leads from weather and water when using them
- fully unwinding the lead before use to avoid it overheating
- checking your leads for signs of damage or fraying and discarding any damaged ones
- installing additional power points rather than using multiple double adaptors, multiple power boards or running extension leads from one area of the room to another.

Buying a home

When you buy a home, check the fixed equipment (such as dishwashers, circuit breakers, ovens, air conditioners, bathroom fan light heaters, swimming pool equipment, solar dc isolators) are not subject to a recall.

As part of a pre-inspection on a home, get a licensed electrician to check the switchboard, wiring and fixed equipment for any safety risks that may need repair.

Buying electrical appliances

Importers and manufacturers have duties to ensure the equipment they supply is electrically safe and suppliers of electrical equipment have a legal obligation to ensure that electrical equipment is accompanied by information about its safe electrical use.

- Ask the supplier to confirm the equipment meets electrical safety requirements.
- Do not buy equipment that does not have partial insulated pins or has holes in the end of the plug pin.
- Do not buy appliances that need a travel adaptor to plug into a power point.

Suppliers of equipment (Australian manufacturers or importers) are required to register on a national database as 'responsible suppliers' and to register certain equipment details and declare their equipment meets Australian safety standards. This register is publically available for you to check before you purchase electrical equipment.

Safety tip:

It can be dangerous to buy electrical appliances on the internet from overseas sellers as they may not comply with Australian safety standards. A person who imports or supplies electrical equipment must ensure that it is tested to be electrically safe, and it is accompanied by information about the way to safely use the electrical equipment. Visit electricalsafety.qld.gov.au for more information about 'responsible suppliers'.

Buying second-hand appliances

Before buying second hand equipment you should check there are instructions on how to use it in a safe way. This may include instructions downloaded from manufacturers' website but at a minimum should include:

- safe operating instructions
- care and maintenance instructions required for electrical safety
- any specific instructions of the appliance related to electrical safety.

Second hand sellers are not required to test the appliance to prove it is electrically safe before selling it to you, however they must tell you they have not tested it. If they have had the appliance tested by a licensed electrical worker they may instead tell you the results of the test. If you buy a second hand appliance that has not been tested, have it tested before use.

Cleaning appliances and power tools

Cleaning appliances can be a simple, yet effective, form of maintenance. The build up of grease, dust, dirt or other contaminants can affect the electrical functioning of your appliance, so it is best to remove these deposits before they cause the equipment to become unsafe.

Before cleaning the equipment, turn the equipment off at the power point and unplug it. Only use a damp cloth for cleaning and never immerse an appliance in water unless advised in the manufacturer's instructions. Only spray cleaning agents on to a cloth, not directly onto the equipment.

Simple cleaning tips include:

- keeping hotplates and ovens free of food spillages or grease
- removing breadcrumbs and residue from toasters
- wiping down jugs and kettles
- removing dust from power tools
- cleaning the grease out of range hood filters or replacing them regularly.

Electric blankets and portable heaters

Inspect electric blankets and heaters that have been stored over summer before re-using them. Discard any damaged items.

For electric blankets:

- never crease them and check for any kinks, broken heating wires or damage to the controller, supply cord or plug before use
- never use sharp objects, like safety pins, to secure them in place
- do not place heavy objects on beds that may have one.

For electric heaters:

- check them for dust before turning them on
- check the fan rotates freely (on fan heaters)
- keep them well away from flammable materials, such as curtains or bedspreads
- never leave them to run unattended, or through the night while sleeping
- never use them to dry clothing
- avoid using a plug-in heater in the bathroom or other wet areas.

Clothes dryers

Clothes dryers are usually safe but in some instances they have caused fires after overheating. You should:

- install, maintain and use your dryer according to the manufacturer's instructions
- keep the exhaust duct clear of obstacles to allow hot air to escape
- clean the lint filter before each use
- keep the immediate area well ventilated during operation
- never overload your dryer
- avoid using it if it is making unusual noises e.g. rubbing or grinding sounds, or if the drying cycle timer is not properly functioning
- avoid placing items in a tumble dryer that have been previously cleaned or spotted with flammable or explosive substances
- wait until the dryer has completed the cool down cycle before removing clothes.

Electricity risks outside the home

Overhead powerlines and service lines

Before you begin any work outside your home, check for overhead service powerlines, especially if you are walking with long objects or ladders. Look up and live.

If you are cleaning out gutters or painting the facia or bargeboards, you should keep well away from your service line. While these lines are usually insulated, the insulation may become brittle with age and a simple knock may cause it to break away and expose live wires.

Powerlines can also sag in extreme heat or may sway in a strong breeze. Pools are often placed in prohibited areas, such as below service lines, or the main switchboard is placed inside the pool area. Check with your electrician about prohibited locations or to relocate powerlines and switchboards.

If an overhead service line is damaged or falls to the ground, stay away from it and contact your energy supply authority.

Check before you dig

If you have underground electric lines, always check before digging where they are located. As a guide, look for electrical equipment that has conduits running down external walls into the ground. There may be a diagram on the switchboard or in the meter box indicating where any incoming electricity supply lines are located.

If you think there may be buried cables carefully dig down to the cable depth (typically 500 mm) until you have confirmed its location. Be especially careful digging on footpaths as many different services may be located there, including high voltage underground cables.

Ring the free Dial Before You Dig service on 1100 or visit 1100.com.au for more information.

Powerlines and tree safety

Avoid planting trees or shrubs under powerlines unless they are 'power-line friendly.' Check with your local nursery or energy supply authority for a list of trees suitable for planting near or under powerlines.

Avoid trimming trees or branches near powerlines. Always use a professional arborist or tree pruning specialist who is trained to do this work.

Private power poles

Some homes in Queensland have poles located inside their property boundary that connect to the electricity network. The property owner is responsible for keeping these poles in a safe condition to avoid an electrical incident or fire.

Over time, poles are prone to deterioration. The base of poles may rot, rust or be affected by termites, leading to a serious situation. Signs of deterioration may include:

- poles leaning excessively
- evidence of rotting or corrosion at ground level or just below
- electrical fittings or wires pulling away from the pole or are broken
- cross arms splitting, loose or sagging
- trees growing into or near power poles.

In many cases, defects may not be readily visible. If you suspect the pole is in poor condition, ask your electrician for advice to arrange a safety inspection by someone with experience in checking property poles. Your pole should be inspected every five years.

If you are a tenant or leasing a property, notify the property owner, property manager or landlord immediately if a power pole or powerline requires maintenance or repair. If you are unsure who owns the pole contact your energy supplier.

Christmas lights or party lighting

When you connect festive/decorative lighting in or outside the home:

- ensure that the lights are suited to external use only and are weatherproof (lights suited for internal use only must not be used outside)
- inspect any festive lighting for damage before re-using it
- only use power boards fitted with overload protection for your lighting, not double adaptors
- do not pass electrical leads through doors or windows where cables may be damaged
- always turn festive lighting off when going out, going to bed or replacing light bulbs
- use extra-low voltage equipment wherever possible and especially when attaching lights to fences, metalwork, roofs and downpipes
- avoid placing temporary festive lighting above or around your pool
- keep your lights well clear of overhead powerlines (at least three metres away)
- do not overload Christmas trees with lights or bend the cords too sharply and be careful of lights near tinsel and metal decorations
- keep lights away from areas that require watering for live trees and areas children may think need watering on artificial trees.

Generators

When using a generator:

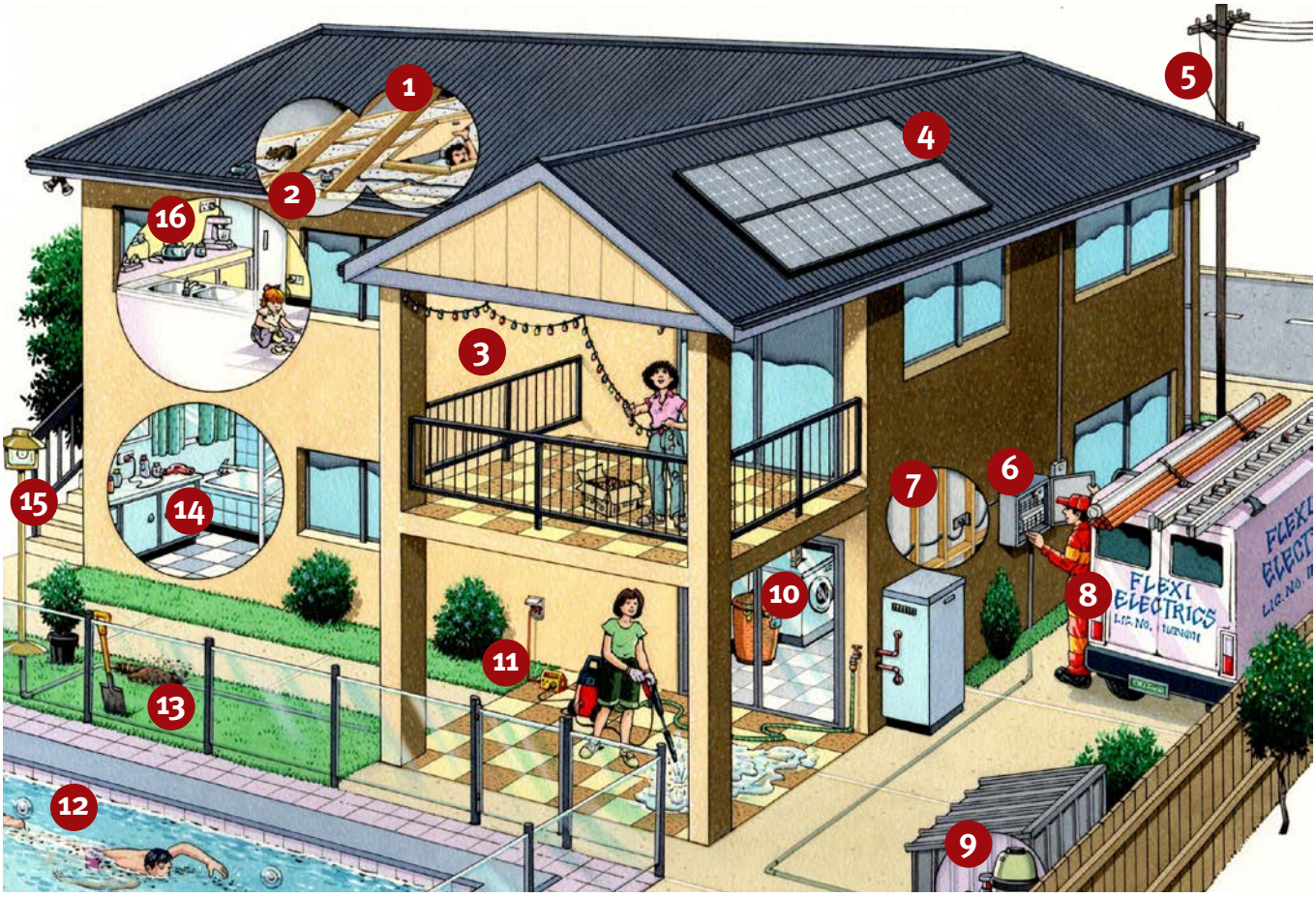
- always follow the manufacturer's instructions carefully
- take care when refuelling the generator (never fuel generators while they are running)
- never connect the generator to your home's fixed wiring, unless you have a change-over switch installed by a licensed electrical contractor — it can be extremely dangerous
- only use it to run portable appliances (including fridges)
- never use a generator inside enclosed spaces, such as garages or enclosed carports, as you risk carbon monoxide poisoning
- ensure any leads used with the generator are in good condition
- do not exceed the generators load rating.

Vehicle accidents and powerlines

Vehicle accidents can bring down overhead powerlines. If there is an accident near you, it is important to remember that the vehicle and nearby fences and trees in contact with the fallen powerlines could be live. Advise vehicle occupants to remain in the vehicle, and other bystanders to remain well away from the fallen powerlines.

Call triple zero (000) for emergency help.

Living with electricity



1. Turn off the power before going into the ceiling space.
2. Check ceiling insulation does not cover down lights.
3. Check that Christmas and party lighting is suitable for outdoor use.
4. Keep your solar power systems functioning safely, and have the system maintained regularly.
5. Look up and live. Be aware of overhead power lines, especially when using ladders.
6. At the switchboard:
   - know how to turn the power off, including equipment such as hot water systems which may be on a separate tariff, and will have a separate switch
   - safety switches save lives; test yours every three months.
7. Before drilling into walls, be aware of concealed cables.
8. Always use a licensed electrician to do your electrical work.
9. A licensed electrician must install and maintain your pool's wiring and electrical equipment.
10. Clean the clothes dryer's lint filters every time you use it.
11. A portable safety switch can protect you when a permanent safety switch is not available.
12. Check underwater lights for glass cracks or defective seals.
13. Take care when digging near underground wiring.
14. Take extra care when using electrical appliances in wet areas such as kitchen, bathroom and laundry.
15. Have permanent lighting installed for your pool area, rather than using temporary lighting with leads.
16. Only use electrical appliances for their intended purpose. Follow the manufacturer's safety instructions.

Useful contacts

Electrical Safety Office
1300 362 128
electricalsafety.qld.gov.au

Energex
13 12 53 (General enquiries)
13 62 62 (Loss of supply)
13 19 62 (Electrical emergency)
energex.com.au

Ergon Energy
13 22 96
ergon.com.au

Essential Energy
1300 359 779
essentialenergy.com.au

Clean Energy Council
cleanenergycouncil.org.au

Dial Before You Dig
1100
1100.com.au

Master Electricians Australia
1300 889 198
masterelectricians.com.au

National Electrical and Communications Association
3276 7950
neca.asn.au

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