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Your guide to using

energy more efficiently

Australia's appetite for a comfortable lifestyle through the use of technology is one of the greatest in the world. Today's homes feature powerful air-conditioning systems, entertainment centres, networked computers and modern appliances in the kitchen. And while we enjoy the benefits of technology, our energy costs have increased. With energy costs set to rise in the future, households are demanding solutions to reduce their energy consumption and costs, without sacrificing comfort and lifestyle.

Established in 1920, Clipsal by Schneider Electric is Australia's number one brand of electrical products, accessories and solutions. Clipsal is dedicated to supplying you with the most innovative and sustainable solutions available. As part of Schneider Electric, the global specialist in energy management, Clipsal provides a total solution for any project or application.

We have a long history of pioneering energy-efficient products for the home, from the famous Infrascan® that automatically turns lights on and off, through to our C-Bus Home Control system, designed to provide comfort, convenience, safety and security as well as potential energy savings.

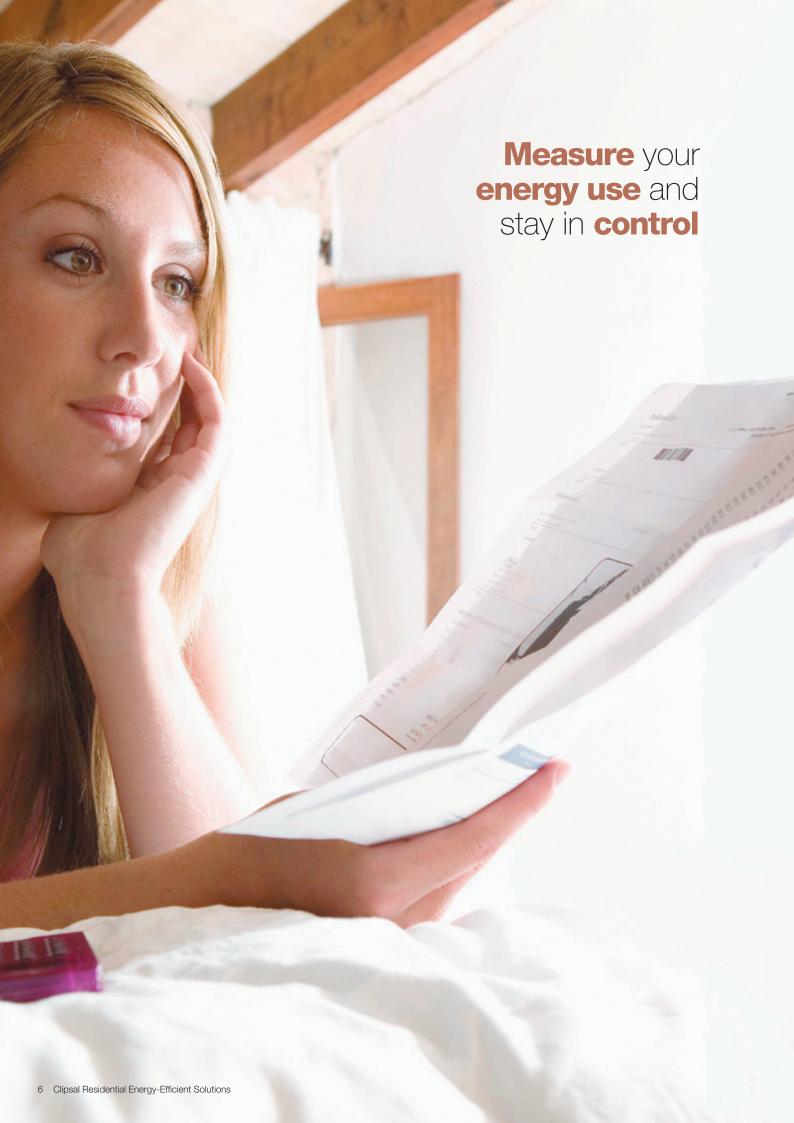
You can do something about your home's rising energy costs just by making a few small changes, without sacrificing your lifestyle.

Your Energy Solutions for Life

Contents

1.	Energy Management	6
	Measuring Energy Use	8
2.	Lighting Strategies	10
	Indoor Lighting	12
	Dimmers	14
	Infrascans	16
	Sunset Switches	18
	Timers	20
3.	Tactics for Cooling & Heating	22
	Ceiling Sweep Fans	24
	Exhaust Fans	26
	Bathroom Fan/Light/Heater	28
4.	Water Strategies	30
	Pool & Spa Strategies	32
5.	Eliminating Standby Power	34
	Standby Power	36
6.	Energy Efficiency Benefits of C-Bus	38







Measure, control, monitor and save

Understanding your energy use is the first step towards reducing an electricity bill. By monitoring energy use, you can better control how and where energy is used in your home.

The concept is simple:

- Understand how much energy is being used and where.
- Identify opportunities where you can take immediate action to reduce your energy consumption.
- Implement solutions.
- Sit back and enjoy the savings on your energy bills.



Measuring Energy Use

Measure home energy use and save on electricity bills

Energy monitoring is the key to successful energy management and can empower you to understand and manage your own energy consumption. With electricity bills set to rise in the future, you need to take action to reduce energy consumption in order to reduce rising household costs. Monitoring your energy use makes it easy to keep an eye on your running costs and energy consumption, which assists you to stay in control and choose how and where energy is used in your home.

Clipsal energy management solutions

Ecomind Electricity Monitor:

- Display and monitor your electricity consumption.
- Monitor hourly, daily, weekly, monthly and average data.
- Set and track electricity consumption targets.
- Manage and plan demand to save up to 10% on your electricity bill.
- Graphically display and monitor your electricity usage on your computer.

C-Bus Home Control:

- With so many advanced features, C-Bus Home Control allows you to take complete control of your lighting and electrical devices. Through sensors, timers and system programming, they will operate only when required and prevent energy wastage from lighting and electrical devices being left on unnecessarily.
- You also have the ability to display your energy usage patterns to understand where and how the energy is used in your home, and set usage targets to alter the behaviour of your system when thresholds are met. With C-Bus you can measure, monitor and control your energy consumption then modify your behaviour and adjust your settings accordingly.

Save up to 10% energy







Lighting Strategies

Know your lighting

Lighting plays a very important part in your house design, comfort and ongoing energy costs. Correct lighting needs to be chosen to suit the application within your home. Clipsal offers a comprehensive lighting range and advice on the correct use of different lamp types to create genuine energy savings.

Linear and fluorescent lighting

Compact fluorescent lamps or CFLs are low energy, long life lamps. They are ideal for areas that require lighting for long periods and are infrequently switched, such as outside lighting, kitchens, studies and living areas. Fluorescent lamps provide an excellent light output and are a great choice for general lighting within your home.

LED lighting

LED lighting is the most energy-efficient and longest lasting lighting product on the market today. Traditionally LED lighting was only ideal for accent lighting in cabinets, under kitchen benches, pathways, wall lights and staircases. With technology advancements they have now become a viable general light source which provides a great energy saving option for bedrooms, living rooms, home theatres and dining rooms. They can now directly replace halogen lighting in these applications.



Indoor Lighting

Energy and cost savings

Downlights are the most popular lighting choice and can be found in the latest modern homes, or in extensions and refurbishments of older style homes.

Clipsal downlights are available in a wide range of colours, styles and configurations, including gimble versions to suit any and every indoor application. Clipsal downlights are available with compact fluorescent and LED technology lamps incorporated.

Compact Fluorescent Lamp (CFL) downlights are long life lamps, and have a lifetime of between two and five times longer than halogen lamps. CFLs also use much less energy than incandescent lamps, and up to 80% less energy in most cases. Some CFL lamps are dimmable, but special CFL dimmers are required.

LED lamps are the newest type of lighting and use even less energy than a CFL. An advantage of LED lamps is their lifetime and greater light output. They can outlast halogen lamps by up to ten times and CFLs by four times. LED lamps are dimmable and have similar light output as a standard 50W halogen.



Clipsal lighting solutions

- Wide range of downlight styles with halogen, CFL and LED lamp technologies.
- Compatible with Clipsal C-Thru range of dimmer products.
- Lifetime of downlights can be extended when used in conjunction with Clipsal C-Thru dimmers.
- Saving of between 30% and 80% of energy when compared with incandescent lamps for similar applications.
- 35W IRC and LED downlights are a direct replacement for 50W halogen lamps, in most situations.
- · Use of Clipsal dimmers saves energy.
- Incorporate control of your lighting into a C-Bus Home Control system for added convenience and energy efficiency benefits.

Energy efficiency core products

Clipsal's extensive lighting range offers an energy-efficient lighting solution to suit your requirements.

Achieve savings

of between 80% of lighting energy costs









Dimmers

A simple solution to save you energy

Dimmers don't just set the mood, but they can save money too. Most of the time we don't need to set our lights to full brightness to light a room, and if you dim your lights you're using less energy to run them. Clipsal leads the way in dimming technology and manufactures dimmers for all lamp types. So if you want to control a single lamp or string of lamps we have a dimmer to suit.

Clipsal dimmers are available in a wide range of styles and finishes with push button, rotary or remote control dimmer functions. There's sure to be a dimmer to suit all your requirements.



Clipsal dimming solutions

- A wide range of dimmer technology products, which are compatible with the majority of lamps.
- Remote control versions available.
- Power range of dimmers from 300W to 2000W.
- Short circuit protection and thermal overload protection on most models.
- Incorporate dimming into your C-Bus Home Control system for extra comfort, convenience and energy efficiency.

Energy efficiency benefits

- Energy and cost savings are achieved when your lighting is dimmed.
- Dimmer units extend the lifetime of your lamps so they need to be replaced less frequently.
- Dimmer units are used to set the desired light level, which reduces energy consumption.
- Energy savings between 10% and 50% can be achieved.

Energy efficiency core products

The Clipsal IR Dimmer represents the next generation of smart dimming products.



Dim your lights and save up to energy



Infrascans®

Safety, convenience and energy savings in one

The original Infrascan was developed by Clipsal, and remains a popular choice due to its reliability, ruggedness, and simplicity of operation, while also offering a five-year warranty. The Infrascan is designed to conveniently turn lights on automatically when movement is detected, and turn off after a pre-set period of time.

Indoor Infrascans are suitable for open-plan areas, single rooms, offices, laundries, toilets, walk-in robes, hallways and pantries.

The outdoor Infrascan will operate under all weather conditions and features long-range detection with immunity to false triggering. Infrascans can be used for garages, driveways, porches and outdoor living areas. They also provide you with peace of mind by automatically lighting up an area to deter intruders and trespassers. However you look at it, Infrascans offer enhanced security, convenience and energy savings.



- A wide range of Infrascan products for indoor and outdoor applications (suitable for all weather conditions).
- · Robust and stylish looking design.
- Various styles and colour options.
- Long detection range with adjustable zones (for example to blank out cars driving along the road).
- · Surface and flush-mount models.
- Advanced feature options, e.g. with integrated lamps, with dimming function, with remote control and holiday functions.
- Models with override control for manual operation.
- Extended functional warranty.
- Incorporate an Infrascan into your C-Bus Home Control system for extra convenience and security.

Energy efficiency benefits

- Energy and cost savings are achieved when lighting is switched on only when required.
- Remembers to turn load off, even when you don't.
- Enhanced convenience, safety and security.
- Energy savings between 30% and 50% can be achieved.

Energy efficiency core products

An extensive range of indoor and outdoor models to suit any application.

Switch off unnecessary lighting and save up to 50% energy









Sunset Switches

See the light in saving energy

Sunset Switches switch lights on once daylight levels drop below the desired level, and switch lights off again at sunrise. The best thing is Sunset Switches automatically adjust to seasonal changes. They're available with inbuilt timers so you can program the lights to turn off after a set time. Clipsal Sunset Switches are perfect for entrance areas, pathways, garden and car park applications — lighting the way for a safe welcome home and to deter would be intruders.

Clipsal Sunset Switch solutions

- Suitable for all outdoor installations.
- Available as dusk to dawn models with programmable time delay.
- Incorporate exterior lighting into your C-Bus Home Control system for enhanced security.

Energy efficiency benefits

- No wasted energy or additional cost due to seasonal changes.
- Programmable time delay means lights are on only for the period required.
- Enhanced convenience, safety and security.
- Achieve energy savings up to 20%.

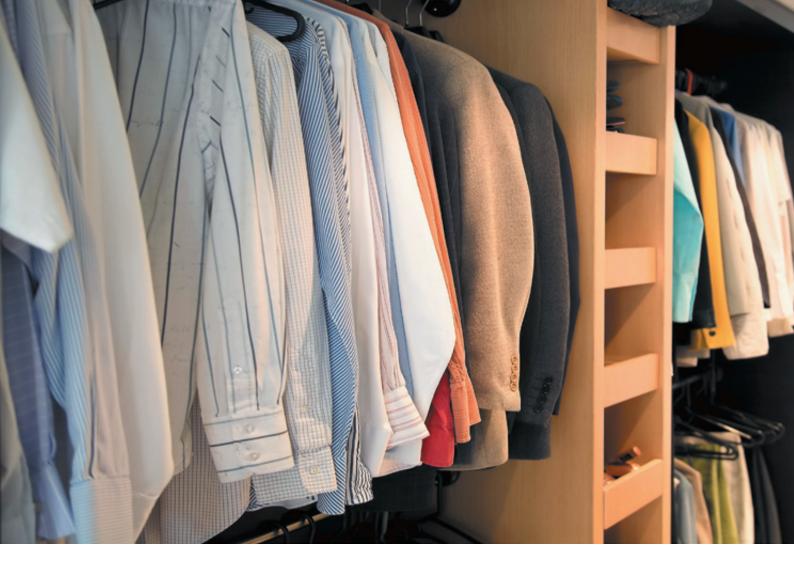
Energy efficiency core products

If you require dusk to dawn lighting, Clipsal Sunset Switches are your energy-efficient option.

Save up to 20% energy







Timers

It's time to save energy

Another great way to save energy is to have a timer do the work for you. Timers are particularly useful in areas where you need lights, fans or heaters to operate for a short period of time and turn off automatically.

Timers are ideal for exhaust fans in toilets and bathrooms, lights in pantries and walk in wardrobes, or towel heaters in bathrooms. Simply set the timer, and it will remember to turn itself off.



Clipsal timer solutions

- Available as electronic or pneumatic switches.
- Programmable time delay, from one minute to 15 hours.
- Status countdown LED indicator on some models.
- A C-Bus Home Control system can manage all your home's timers plus provide additional functions, for greater control.

Energy efficiency benefits

- Precise time control saves energy and costs.
- Programmable time delay results in wide applications for timer switches.
- Enhanced convenience, safety and security.
- Achieve energy savings between 20% and 30%.

Energy efficiency core products

Set and forget switches that provide exact time control of lights, fans, heaters or other devices.



Switching devices off automatically can **Save** up to 30%



Tactics for

Cooling & Heating

Save energy and stay comfortable

There is nothing like a cool fresh breeze throughout your home. Not only is it comforting, but it also helps to freshen the air.

Ceiling sweep fans are fashionable, super quiet and an effective way to freshen the air and cool your home, while saving energy and reducing air-conditioning costs.

The convenience and comfort of warming up efficiently in winter comes at a price - energy consumption and cost. Choosing the right types of heating and air circulation, and implementing effective insulation measures can all assist in minimising your excess energy costs.



Ceiling Sweep Fans

Natural and efficient

Ceiling sweep fans are an effective natural way to cool your home or circulate heat. In most cases, when the outdoor temperature is less than 30 degrees, a ceiling sweep fan is all you need to stay cool and comfortable. Stylish in design with remote control options and inbuilt lighting, ceiling sweep fans are super quiet and economical to run.

Ceiling sweep fans are just as practical in winter, whereby reversing the airflow will circulate warm air that accumulates near the ceiling. This increases the efficiency of the heating and reduces your energy costs at the same time.



Clipsal ceiling sweep fan solutions

- A wide range of three, four and five-blade ceiling sweep fans.
- Available in remote control or wall control versions.
- Stainless steel and powder coat finishes.
- Forward and reverse air flow capability.
- Three stage or variable fan speed controllers.
- Suitable for indoor and outdoor use.
- Reliable and quiet motors.
- Control ceiling sweep fans with a C-Bus Home Control system to deliver an intelligent solution.

Energy efficiency benefits

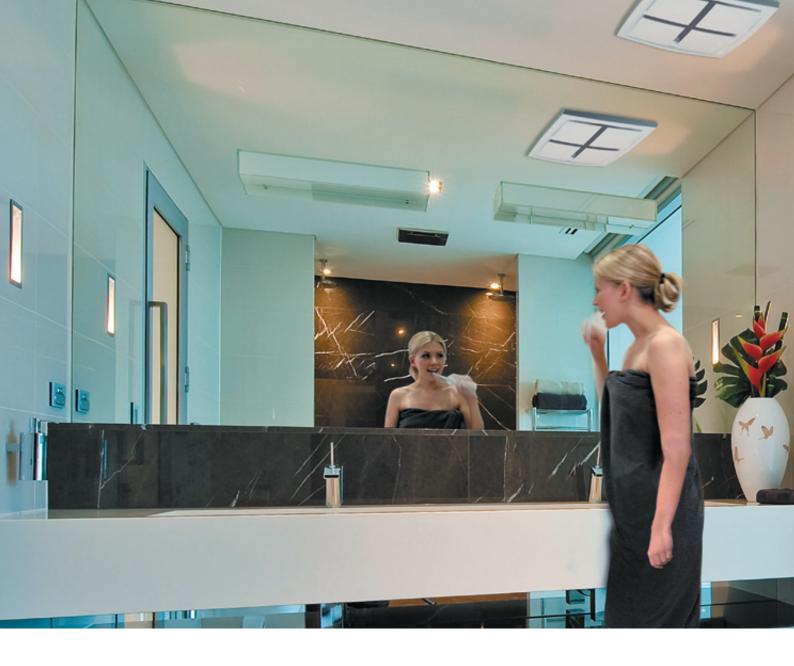
- Typical savings of \$126 in energy costs per annum.
- Cost effective way to cool a home day and night.
- Uses substantially less energy than air-conditioning units and systems.
- Improves effectiveness of heating, pushing down warm air from the ceiling.

Energy efficiency core products

Save on heating and cooling costs with Clipsal's ceiling sweep fans.

Save up to \$126 in energy costs per annum





Exhaust Fans

Keep the draught out

Studies have shown that poor seals around doors and windows, and air leaks elsewhere account for up to 15% of heating and cooling loss in the home. Exhaust fans commonly found in kitchens, bathrooms, laundries and toilets are used to exhaust stale air to the outside or into the roof space. Most exhaust fans are open at the back and allow warm air to escape in winter and hot air to enter in summer. Most Clipsal exhaust fans are fitted with new backdraught shutters that close automatically when the exhaust fan is not in use, thus preventing air entering or escaping into the home.

Clipsal exhaust fan solutions

- Most Clipsal exhaust fans feature a backdraught shutter that closes automatically when not in use.
- Unique grille design reduces dust collection by 80% and requires cleaning less frequently.
- Designed to move a large volume of air equivalent to 290m³ per hour.
- High performance centrifugal fan.
- Side entry duct connection.
- Incorporate an exhaust fan into your C-Bus Home Control system for intelligent control.

Energy efficiency benefits

- Save up to \$72 in energy costs per annum by sealing openings for the average home.
- Minimises heating and cooling costs.
- Prevents hot air from entering the home in summer and warm air escaping in winter.

Energy efficiency core products

Exhaust fans remove steam from bathrooms and stale air from the home, while offering the energy saving benefits of Clipsal's unique backdraught shutter designs.

Save up to

\$72 in energy

costs per annum by

sealing openings

throughout the home



Bathroom Fan/Light/Heater

Warm up efficiently

The Clipsal Sunshine range of fan, light and heater combination units offer an ideal solution for your bathroom, where instant warmth and maximum comfort are a must.

To optimise energy use and tailor the temperature to your individual requirements, the Sunshine range allows you to select the heat output, only using the energy that is needed.

For added convenience, a powerful exhaust fan is incorporated into the unit. And for those applications where only lighting is required, Clipsal provides a low energy, long life fluorescent lamp.

Clipsal fan/light/heater solutions

- Efficient and economical operation.
- Multiple choices two heat lamp model for use in ensuites, and four heat lamp model for main bathrooms.
- Some models feature flexible ducting option.
- Efficient ball bearing motor and centrifugal fan for optimum ducting performance.
- Built-in thermal protection temperature sensor automatically turns off heat lamps if overheating is detected. Exhaust fan and centre light continue to operate, on selected models.
- Incorporate a fan/light/heater into your C-Bus Home Control system for added comfort and convenience.

Energy efficiency benefits

- Supplied with energy-efficient compact fluorescent globe.
- User selectable heat settings.
- Some models feature backdraught shutters to reduce air draughts.

Energy efficiency core products

Turn your bathroom into an oasis of warmth and light with Clipsal fan/light/heaters, with the energy-efficient option of heat control and backdraught shutters.

User selectable

heat settings
can lead to
energy savings
of up to 50%





Water Strategies

Save electricity, use a timer

Water saving is front of mind for every Australian. Water saving strategies and devices such as flow-regulators, taps, dual-flush toilets, sensors and timers are becoming more common. There are also some simple things you can do around the home to reduce the consumption of energy in relation to water features, ponds, pools and spas. Typically exposed to the outdoors, the Clipsal weatherproof timer range can assist you in managing electrical consumption by enabling you to set up a more efficient operating regime.



Pool & Spa Strategies

Timer switches

If you own a swimming pool or spa, a Clipsal timer switch is the ideal solution to reduce your energy costs. It can be programmed for the seasons, which means your pool pump operates for longer periods during the summer months when the pool is in use, while in winter the pump will operate less frequently when the pool isn't being used. There are also programming options available for when you are on holidays.

The recommended ranges for summer and winter pool filter operation are eight and four hours respectively. In most cases a reduction in running time per day will provide instant savings, however drastic reductions may result in under-filtering and associated chemical requirements would defeat the purpose of the energy saving. We recommend you make changes in consultation with your local pool service technician.

Clipsal timer switch solutions

- Clipsal manufacture a range of time clocks for pool pump applications in both analogue and digital formats.
- Suitable for outdoor applications.
- Simple to program and use.
- Support multiple schedule programs.
- Includes a backup battery to ensure time settings are not lost during power outages.
- Use a C-Bus Home Control system to manage your timers and schedules for convenient and efficient control.

Energy efficiency benefits

- Seasonal schedule control of pool pumps can save over \$525 per annum in energy costs.
- Operating pool pumps less frequently may increase service life.

Energy efficiency core products

A programmable timer can operate your pool pump according to seasons and provide you with substantial energy savings.

Seasonal schedule

control of pool pumps can save over

> 525 per annum in energy costs

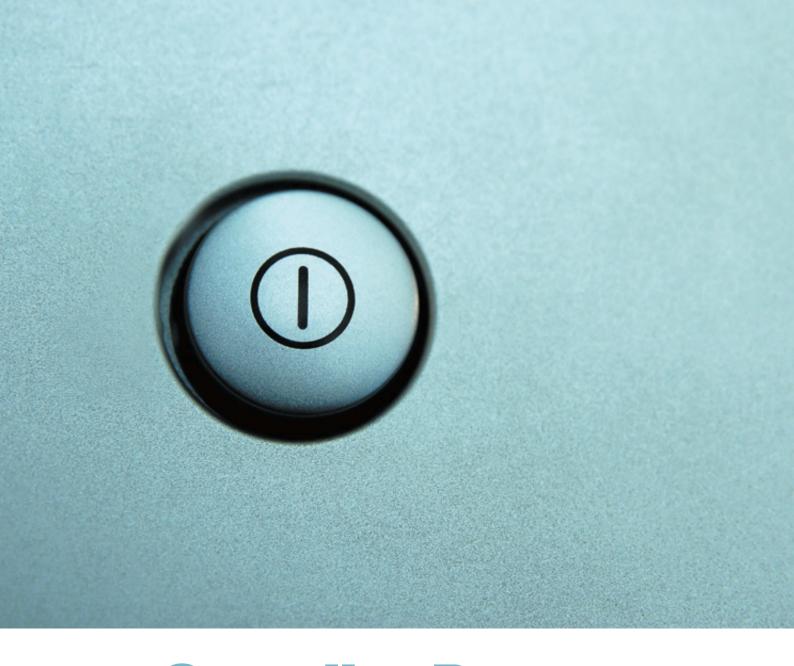




Eliminating **Standby** Power

A study by the United Nations Economic and Social Commission for Asia and the Pacific, estimated that the average Australian household uses 86.8W of standby power at any time. This is equivalent to 760kWh per annum or 11.6% of the total energy consumption in the home.

Standby power creates over four million tonnes of greenhouse gases in Australia every year and is set to double every nine years as we incorporate more electronics into our homes in the future.



Standby Power

Money for nothing

Standby power is that small amount of power appliances such as televisions, DVD players, phone chargers and microwave ovens consume when sitting idle. Standby power otherwise serves no useful purpose, which means you are paying money for nothing. It is of no surprise to learn that over 10% of your home's electricity costs can be the result of standby power.

You can minimise or totally eliminate standby power costs by simply switching off power at the outlet. Clipsal offers a range of innovative products to help you do this, such as remote kill switches and intelligent plug packs that automatically senses the device is in standby power and switches it off.

Standby power can also be easily and effectively managed by your C-Bus Home Control system. Automatically turn off appliances that may use standby power at the press of a button. An "all off" function can be incorporated into an "away" scene before you leave the house.

Clipsal standby power solutions

- Remote control kill switches turn off devices when not in use.
- Simple to use.
- · Cost effective.
- Incorporate an "all off" function into your C-Bus Home Control system for added convenience and energy savings.

Energy efficiency benefits

Remote control kill switches can reduce total power energy consumption by up to 10%.

Energy efficiency core products

Remote kill switches and intelligent plug packs sense a device is in standby power and automatically switch it off, helping to reduce your energy consumption.





Energy Efficiency

Benefits of C-Bus

We all want to do our part for the environment, but did you know that you can use energy more efficiently using C-Bus Home Control?

With so many advanced features, C-Bus allows you to take complete control of your lighting and electrical devices. Through sensors, timers and system programming, they will operate only when required and prevent energy wastage from lighting and electrical devices being left on.

As awareness grows amongst consumers, understanding where excess power is being used is key in reducing household electricity bills. With C-Bus you can measure, monitor and control your energy consumption then modify your behaviour and adjust your settings accordingly.



C-Bus Home Control uses energy more efficiently through:

Dimmers

Dimmers are commonly used for energy efficiency. They can extend the life of lamps, while reducing your power bill. Lights can be dimmed to 20% when you are watching a movie, or incorporated into a "dining" scene for the perfect ambiance during dinner.

Occupancy Sensors

Utilise sensors in your pantry, hallway or closet. They'll automatically turn lights on when you enter and turn lights off when you leave.

All Off Switch

At the press of a button, automatically turn off all your lights and appliances, which may use standby power. An "all off" function can be incorporated into an "away" or "goodbye" scene for when you leave the house.

C-Bus Thermostat

C-Bus Thermostats can be easily set to function in a power saving mode (Setback Mode). Heading off to work? Simply press the "goodbye" scene on your keypad or touch screen to turn off all the lights and reduce energy consumption for heating or cooling.

Air Conditioners

Air conditioners can be integrated with C-Bus and controlled by timers and sensors to operate more efficiently. For instance, program your heating or cooling to only turn on when it reaches a certain temperature outside.

Fan Control

By applying C-Bus Fan Controllers with C-Bus temperature sensors, C-Bus Home Control can maintain adequate airflow and effective air movement, reducing the reliance on artificial heating and cooling.

Light Level or **Daylight Sensors**

Automatically adjust lighting according to the natural ambient light coming in through vour windows. This creates a perfectly lit environment, while making the best use of natural light.

Blind Control

Motorised windows, blinds and curtains are incredibly practical - improve your home's energy usage by optimising the natural light or automatically open and close to reduce thermal transfer and reduce reliance on artificial heating and cooling.

Time Scheduling

With the use of simple time scheduling, C-Bus can turn lighting and electrical devices on and off as required. For example: If you arrive home from work at 5.30pm, schedule your air conditioning to turn on at 4.30pm.

Irrigation System

Did you know an automated irrigation system reduces water consumption far beyond that of a standalone irrigation system? Efficiencies can be further maximised by considering other variables, such as daytime temperature, rainfall, wind speed and ground moisture.

CLIPSAL POWERHOUSE & DISPLAY CENTRES

The best way to experience what Clipsal electrical products can do to enhance your home is to experience them in action at a Clipsal Powerhouse or Display Centre.



CLIPSAL POWERHOUSES

Adelaide

6/69 Sir Donald Bradman Drive Hilton SA 5033 ph: (08) 8161 0751

Melbourne[†]

Building B, Ferntree Business Park 296-310 Ferntree Gully Road Notting Hill VIC 3149

ph: (03) 9207 3200

Perth

55 Salvado Road Subiaco WA 6008

ph: (08) 9347 3570 Located in Home Base Expo*

Sydney

78 Waterloo Road Macquarie Park NSW 2113

ph: (02) 9125 9450

66 Merrivale Street South Brisbane QLD 4101

ph: (07) 3635 7486

Canberra

Brisbane

28 Collie Street Fyshwick ACT 2609

ph: (02) 6285 7300

Melbourne

1686 Princess Highway Oakleigh East VIC 3166 ph: (03) 9207 3200

* The Home Base Expo and HIA Home Ideas Centres are open on weekends.

Clipsal Powerhouses and Display Centres are open 9am-5pm Monday to Friday.

Or call one of the following Selection Centres if you are located nearby:

Albury

303 North Street Albury NSW 2640 ph: (02) 6051 2377

Gold Coast

Unit 7, 82-86 Minnie Street Southport QLD 4215 ph: (07) 3635 7486



[†] We have recently relocated. Please call or visit clipsal.com/powerhouse for latest details.