



Department of Education & Training

School Energy Shut Down Guide

December 2005

Knowledge&Skills
Building a Future

[www.sofweb.vic.edu.au/facility/
docResearch/Key Docs.htm#6](http://www.sofweb.vic.edu.au/facility/docResearch/Key Docs.htm#6)





Contents



How to roll out this guide	4
Section 1 – Opportunities	5
Section 2 – Checklists and Procedures	7
Tips for using the checklists	7
Classroom Energy Monitor Checklist	8
Before going home shut down checklist	10
School Holiday Energy Shutdown Procedure	11
After School Holiday Switch On Advice	14
Canteen Energy Shutdown Procedure	16
Shut down Guide for New Staff / Temporary Staff	17
Section 3 – Achieving sustained good switch off practices in your school.	19
1 Identify how much is being wasted.	19
2 Set a target	21
3 Provide motivators	21
4 Launch the program	21
5 Develop checklists and labels	21
6 Have a shut down verification week	22
7 Review bills to see how much has been saved	22
8 Move on to the next steps	22
Further Information	24

CIRCUIT BOARD WARNING

Care should be taken when switching off at the circuit board. Schools should be aware that the school's security system is connected and powered from the main switchboard. Shutting down the main switchboard may disable the security system.

Schools should also be aware that the security system sub-panels in other buildings or areas on site are connected to the local switchboard for that building.

Shutting down these switchboards may disable the section of the alarm system covering that building.

We advise having your circuit board and sub boards labelled, and that the security system circuit breakers be clearly identified.

If schools wish to shut mains or submains off over the vacation period they should contact Emergency & Security Management on 03 9589 6266 and seek advice.

December 2005

School Energy Shut Down Guide

This Guide is designed to help teachers, students and staff to turn off energy consuming devices when not required. It can be used as a stand alone resource to save energy at school or can be integrated into a comprehensive energy management plan.

Why use this guide?

There is now compelling evidence that the burning of fossil fuels is the prime contributor to climate change. This is expected to reduce Victoria's rainfall, increase temperatures and result in more severe weather events such as storms, droughts and flooding.

The Victorian Government is committed to addressing the issue of climate change and is supporting many programs aimed at reducing greenhouse gas emissions.

It has committed to reducing energy use from the state government sector by 15% by 2006, and is expected to announce further targets in 2006.

Saving energy is one of the most effective ways to reduce greenhouse gas emissions in Victoria. Most schools have the opportunity to save an average of \$4,000, and at least \$2,000, every year by reducing unneeded energy consumption.

This guide should be used in conjunction with the 'Save Energy@School' CD, which contains the following:

- Primary Curriculum Resources CSF Levels 1 – 4
- Secondary Curriculum Resources CSF Levels 5 – 6
- Resources for School Energy Managers
- Resources for Teachers and Students

This guide has been developed by Bruce Rowse, Paul Brown and Regina McLeod of Energy Doctor Pty Ltd with collaboration from Research Primary, Balwyn High, Macedon Primary, Manchester Primary, St. Albans Secondary, Sandringham East Primary, Mallacoota P12, Geelong East Primary, Brighton Secondary, Wandin Yallock Primary, Ascot Vale Primary and Mildura West Primary. Amanda Curlewis and Victoria Hart also provided valuable input.

How to roll out this guide

The guide is comprised of

- Section 1 – Opportunities
- Section 2 – Checklists and procedures for various shut down activities
- Section 3 – Advice on achieving sustained good shut down practices in your school.

Section 1 shows in two pages where many of the opportunities are to save energy by improved switch off practice – and quantifies some of them. **To start saving energy now – go straight to Section 2 and start using the checklists and procedures.** For inspiration and advice on how to achieve sustained good shut down practices go Section 3.

We recommend that someone in the school be given the role of energy manager, and have the job of introducing the checklists and procedures and verifying that they are followed. **Responsibilities for using the checklists and procedures should then be delegated to specific people.** The following table lists the checklists and procedures in the guide to help with saving energy and who might be responsible for implementing the recommendations.

Tool	Who can implement it?
Classroom Energy Monitor Checklist	Students, teachers, cleaners
End of Day Shut-Down checklist	Teachers (on a rotating basis)
School Holiday Energy Shut Down Procedures	Maintenance person, cleaners, school energy manager
Canteen Energy Shut Down Procedures	Canteen Staff
Guide for new staff / Temporary Staff	Principal / Assistant Principal
IT Energy Management Strategies	IT personnel

Table 1 – Who implements the various checklists and procedures

Section 1

Opportunities

Most schools have significant opportunity to reduce their energy use from:

- Computers
- Lights
- Heaters
- Air-conditioners
- Printers and Copiers
- Standby loads ¹
- Tea and coffee boilers

The main energy users in Victorian schools are heating and cooling equipment (mostly heating), lights and computers. For a primary school using natural gas for heating (space heaters in each class room), and with little air conditioning, the approximate breakdown of its energy costs and greenhouse pollution is shown in figure 1.

This figure is indicative only, your schools energy breakdown might be different to this. What you can expect in a primary school is that heating & cooling, lights, and computers will be the largest energy users in the school. In secondary schools heating is often clearly the major energy user, followed by lighting.

Energy costs for *heating* and cooling in schools using LPG, with central gas heating systems, or electric heating (eg reverse cycle), could be expected to be proportionally much higher. And those with air conditioners in every classroom would also expect that heating and *cooling* energy use would also be proportionally higher.

¹ Standby loads are those loads consumed to keep an electrical using device ready, even when it is switched off. Most modern appliances have a standby load of some sort, including computers, printers, copiers, air conditioners, gas heaters, anything with a plug-pack (such as a lap-top computer, computer speakers, battery chargers), televisions, VCRs, musical instruments, scanners, etc. The only way to eliminate a standby load is to switch off at the wall or unplug at the wall. For hard-wired devices, such as air-conditioners, turn off at the fuse board. *Electricity is dangerous - observe all necessary safety precautions.*

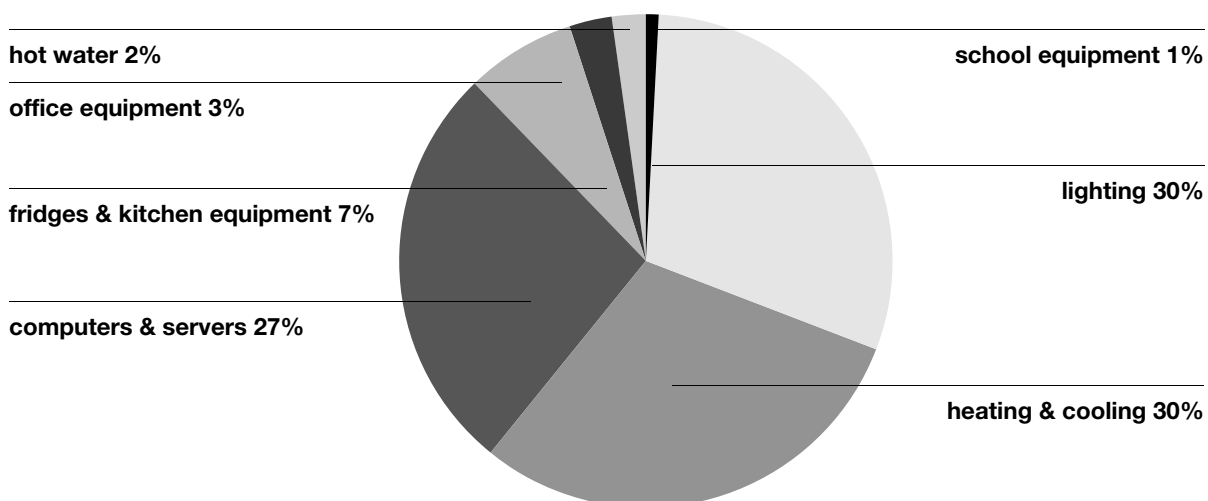


Figure 1

Approximate breakdown of a school's energy cost and greenhouse pollution by end use

Use the questions what, where and why to identify savings opportunities

- *What* is being left on needlessly?
- *Where* is it?
- *Why* is it being left on – is there a good reason?

The numbers in the tables below will give a feel for the savings possible

Load	Often on for (hours per day)	Often only needed for (hours per day)	Typical power draw	Yearly tonnes of greenhouse pollution if never turned off	Number of fridges required to hold this much greenhouse gas
Computer	8 to 24 hours	2 to 6 hours	120 watts with screen on (CRT), 60 watts with blank screen	0.73 (with a blank screen)	731
Light	8 hours	3 to 6 hours	One 4' fluoro lamp uses 41 watts	0.5	499
Gas space heater	2 to 6 hours	2 hours	20 MJ / hr	0.31 (if run needlessly for 2 hours a day over winter)	305
Printer or Copier	8 to 24 hours	1/2 to 8 hours	1 to 10 watts ink-jet, 15 to 150 watts laser printers and copiers	0.37 @ 30 watts	365
Standby load	24 hours	8 hours	5 watts	0.06	60
Tea / coffee boiler	24 hours	8 hours		0.73	731

Table 2
Savings opportunities for different types of energy using devices

The monetary savings from improved shut down and switch off practices can also be significant, it is not uncommon to be able to achieve financial savings of 10% to 20%.

Section 2

Checklist and Procedures

Tips for using the checklists

- Print the classroom energy monitor checklist out and laminate it, and stick it on the classroom wall. Have it filled in by marker pen, then rub it out at the end of the week for re-use the following week.
- Use the curriculum handouts in the 'Save Energy@School' CD (available from DE&T) to identify the energy waste in classrooms and in other parts of the school and to add other appliances to the list.

Classroom Energy Monitor Checklist

The classroom Shutdown checklist is designed for a student or teacher to implement.

Rotate the Energy Monitor so each student gets a chance to be the 'Weekly Energy Monitor'.

AFTER CLASS Shutdown

Completed (tick)					Turn off the following	What happens if you don't do it?
Mon	Tues	Wed	Thu	Fri		
					Lights	One computer left on overnight makes a cloud of greenhouse gases big enough to fill 13 fridges.
					Computers	
					Heaters	
					Fans	
					Air Conditioners	
					Printers	
					Other appliances	

LUNCHTIME Shutdown

Completed (tick)					Turn off the following	What happens if you don't do it?
Mon	Tues	Wed	Thu	Fri		
					Lights	The Mountain Pygmy Possum is so cute! It's also not happy! Heating up the earth with greenhouse gases will melt all the snow where it likes to live.
					Computers	
					Heaters	
					Fans	
					Air Conditioners	
					Printers	
					Other appliances	

RECESS Shutdown

Completed (tick)					Turn off the following	What happens if you don't do it?
Mon	Tues	Wed	Thu	Fri		
					Lights	Leaving the lights on at recess and lunch will make enough greenhouse gases in a year to fill your whole house!
					Computers	
					Heaters	
					Fans	
					Air Conditioners	
					Printers	
					Other appliances	

Before going home shut down checklist

The before going home shut down checklist is designed for a staff member to implement. We recommend rotating this on a weekly basis. You may decide only to formally do this only once a week if, after using it for a while, it appears that everything is being switched off (Friday night would be best). Keep the checklist in a public place in the staffroom – eg hanging from the wall – where everyone can see it.

Before going home shut down checklist

Completed (tick)					Turn off the following	What happens if you don't do it?
Mon	Tues	Wed	Thu	Fri		
					Computers in pods or computer labs	Computers left on overnight all the time will generate as much greenhouse pollution as one car. Climate change is hard to see on a day to day basis, but is real. Switching off will make a difference, and is a good example to students. The more we switch off, and the more of us that do this, the greater the difference we can make.
					Computers	
					Radios and other appliances in staff areas	
					Central Air conditioners	
					Central heaters	
					PA system	
					Air conditioners	
					Fans	
					Heaters	
					Tea and coffee boilers	

Try to get everything in the school that isn't in a classroom on this list.

Tips

- “Power save” mode on copiers and printers uses less energy than normal, but energy is still used. Think of power saving mode like a car idling – its not moving but is still using energy. So switch off overnight.
- You may like to mark the location of each appliance on a map, and list each one individually – eg copier A, copier B etc.

- If there are several staff rooms you might have a list for each staff room, rotated among staff in that area.
- If an air conditioner or heater is on, and you can't figure out how to turn it off – you have a problem! Get a tradesperson in to have a look at it, and if its on a timer, to change the times so that it shuts down earlier! You may also notice that some of your security lights are on in the daytime. Get your sparky to have a look at that as well.

School Holiday Energy Shutdown Procedure

This checklist is designed for maintenance personnel, the energy manager or teachers to save energy during holidays. Someone should be appointed to do it before each holiday.

Add and delete items that are specific to your school and fill in the location where the switch off occurs. Use this procedure in combination with labelling at the point where the switch off occurs.

SUMMER Break

Completed (tick)	Turn off the following	Location	What happens if you don't do it?
	Air conditioner shut off at circuit board ²		Most electricity using devices have a "standby load", even when switched off. This includes anything with a remote control (eg air conditioners), computers, office equipment, even gas heaters. The standby load on some copiers can be as high as 100 watts (producing 1.2 tonnes of greenhouse pollution a year). Only turning off at the wall can eliminate this load.
	Computer and office equipment at the wall ³		
	Fridges emptied, doors left ajar ⁴		
	Everything on the "before going home" checklist		

² Your circuit boards may or may not be well labelled. Consider getting an electrician to come in and label the circuit board for you if you can't figure out where the air conditioner circuit breakers are.

³ Computers and office equipment should be first switched off normally using the power switch on the machine before switching off on the wall. Check the operation manual of printers and copiers beforehand or phone the manufacturer, in some laser machines there can be problems with toner leakage.

⁴ You may need to ask staff to empty the fridges in their staff rooms a day or two beforehand.

TERM 1&2 Break

Completed (tick)	Turn off the following	Location	What happens if you don't do it?
	Air conditioner shut off at circuit board ²		
	Computer and office equipment at the wall ³		
	Fridges emptied, doors left ajar ⁴		
	Everything on the "before going home" checklist		

CIRCUIT BOARD WARNING

Care should be taken when switching off at the circuit board. Schools should be aware that the school's security system is connected and powered from the main switchboard. Shutting down the main switchboard may disable the security system.

Schools should also be aware that the security system sub-panels in other buildings or areas on site are connected to the local switchboard for that building.

Shutting down these switchboards may disable the section of the alarm system covering that building.

We advise having your circuit board and sub boards labelled, and that the security system circuit breakers be clearly identified.

If schools wish to shut mains or submains off over the vacation period they should contact Emergency & Security Management on 03 9589 6266 and seek advice.

² Your circuit boards may or may not be well labelled. Consider getting an electrician to come in and label the circuit board for you if you can't figure out where the air conditioner circuit breakers are.

³ Computers and office equipment should be first switched off normally using the power switch on the machine before switching off on the wall. Check the operation manual of printers and copiers beforehand or phone the manufacturer, in some laser machines there can be problems with toner leakage.

⁴ You may need to ask staff to empty the fridges in their staff rooms a day or two beforehand.

TERM 2&3 Break

Completed (tick)	Turn off the following	location	What happens if you don't do it?
	Computer and office equipment at the wall ⁵		
	Fridges emptied, doors left ajar ⁶		
	Everything on the "before going home" checklist		

TERM 3&4 Break

Completed (tick)	Turn off the following	Location	What happens if you don't do it?
	Pilot lights on gas heaters	See Instructions on each heater	Pilot lights from gas heaters will make enough greenhouse gases to fill 97 fridges over a year.
	Gas heaters at the wall.		
	Central heating systems		
	Computer and office equipment at the wall ⁷		
	Fridges emptied, doors left ajar ⁸		
	Everything on the "before going home" checklist		

⁵ Computers and office equipment should be first switched off normally using the power switch on the machine before switching off on the wall. Check the operation manual of printers and copiers beforehand or phone the manufacturer, in some laser machines there can be problems with toner leakage.

⁶ You may need to ask staff to empty the fridges in their staff rooms a day or two beforehand.

⁷ Computers and office equipment should be first switched off normally using the power switch on the machine before switching off on the wall. Check the operation manual of printers and copiers beforehand or phone the manufacturer, in some laser machines there can be problems with toner leakage.

⁸ You may need to ask staff to empty the fridges in their staff rooms a day or two beforehand.

Electricity is dangerous - observe all necessary safety precautions.

After School Holiday Switch On Advice

The equipment switched off for school holidays will need to be switched on at the start of the new term. While some things can be left up to the individual users to switch on, such as staff fridges, and boiling hot water units, you may choose to switch other loads on at the start of term to minimise inconvenience to staff and ensure safe operation. Some wall switches for computers and office equipment can be difficult to get at. See if you can minimise this inconvenience – in the interests of safety we recommend consulting your electrician. Split system air conditioners should be turned on at the circuit board at least 6 hours before use.

If there is a problem with turning something on, call your electrician or plumber. As your gas heaters are likely to be serviced at least once a year, we recommend you schedule the first service when you first switch them on. In the interests of safety we recommend asking your gas service technician to start your gas pilot lights when undertaking this first service.

Start of TERM ONE

Completed (tick)	Turn on the following	Location
	Air conditioner on at circuit board ⁹	
	Computer and office equipment at the wall	

⁹ If your split system air conditioner has been turned off at the fuse board you may need to reconnect it at the fuse board at least 6 hours before using it or risk serious damage to it. Consult the manufacturer for specific instructions.

Start of TERM TWO

Completed (tick)	Turn on the following	Location
	Air conditioner on at circuit board ¹⁰	
	Computer and office equipment at the wall	
	Pilot lights on gas heaters – probably not needed at the start of term. Get the heaters serviced when you decide to start them – eg mid April, and have the service technician start the pilot lights for you.	
	Central heating systems – get your service technician to start up at the same time the gas heaters are serviced.	

¹⁰ If your split system air conditioner has been turned off at the fuse board you may need to reconnect it at the fuse board at least 6 hours before using it or risk serious damage to it. Consult the manufacturer for specific instructions.

Start of TERM THREE

Completed (tick)	Turn on the following	Location
	Computer and office equipment at the wall	

Start of TERM FOUR

Completed (tick)	Turn on the following	Location
	Computer and office equipment at the wall	

Canteen Energy Shutdown Procedure

This checklist is designed for Canteen managers and staff.

Add and delete items that are specific to your school. Use the school energy manager section in the 'Save Energy@School' cd (available from DE&T) that discusses these recommendations for canteens in detail.

Use this procedure in combination with labelling at the point where the switch off occurs.

Every Night

Completed (tick)	Turn off the following	What happens if you don't do it?
	Air conditioner	Tea and coffee boilers left on overnight produce 500 kg of greenhouse pollution a year – enough to fill 500 fridges!
	Computer and office equipment at the wall*	
	Tea and coffee boilers at the wall	
	All cooking equipment	
	Lights (including in fridges and coolrooms if possible)	
	Bug Zappers (check health standards)	
	Heaters	

* Check manufacturers instructions.

Additionally every weekend / the last day of the week the canteen used

Completed (tick)	Turn off the following	What happens if you don't do it?
	Drinks Fridges (without perishables)	Large drinks fridges left on can waste \$170 and 2300kg of greenhouse gases each year

Additionally for Term Breaks

Completed (tick)	Turn off the following	What happens if you don't do it?
	Turn off gas (inc. pilot light)	

Shut down Guide for New Staff / Temporary Staff

[School name]

has a policy of shutting down energy using devices when they are not needed. This includes lights, heaters, fans, air conditioners, heaters, printers, copiers, etc – anything that uses energy and is non essential.

You are expected to turn off energy using devices when they aren't needed. Fluorescent lights should be turned off when you leave the room – it is a myth that they use lots of energy when starting. Computers should similarly be turned off if they are unlikely to be used for more than 30 minutes. Heaters can be left on for long after they are needed – please endeavour to be conscious of the temperature and turn off the heater once the room is up to temperature. Similar advice applies to air conditioners and evaporative coolers.

Standby loads are those loads consumed to keep an electrical using device ready, even when it is switched off. Most modern appliances have a standby load of some sort, including computers, printers, copiers, air conditioners, gas heaters, anything with a plug-pack (such as a lap-top computer, computer speakers, battery chargers), televisions, VCRs, musical instruments, scanners, etc. The only way to eliminate a standby load is to switch off at the wall or unplug at the wall. You should switch off standby loads when not needed.

All our classrooms are fitted with shut-down checklists. Please ensure that these are filled in. Each week a student is to be nominated to fill in the shut down checklist.

You may be requested to complete the after school shut down checklist. This involves walking around the school and verifying that everything is switched off before going home.

This policy is in place to reduce the schools' greenhouse pollution arising from its energy use.

IT Energy Management Strategies

Around 20% to 30% of energy use in most schools comes from the use of computers. There is opportunity for significant cost savings and greenhouse gas pollution reduction with improved computer switch off practices. The following recommendations are intended to guide.

IT professionals in ways to improve the energy efficiency of office equipment.

Completed (tick)	Implement the following	Detail
	Program computer monitors to switch off	Recommend after 15 minutes of inactivity. Install stickers (as detailed in the label section of this guide) to instruct people on the program.
	Program computer hard disks to turn off	Recommend after 30 minutes of inactivity, eg by putting computers into "standby" mode.
	Install Automatic computer switch-offs for networked computers	Recommend specific program and strategy (to be developed). Designed to switch computers off at a set time each night and on weekends and school holidays.
	Program computers to switch off if power button is pressed	This is very easy to do with the Microsoft XP operating system
	Encourage users to turn computers off	Particularly at recess, lunch and after school. See 'Classroom Energy Monitor Checklist'.
	Enable Power save on office equipment	Including all copiers, printers and any other equipment
	Computer switch off at the wall	Turn all office equipment, except faxes, servers and some copiers at the wall (check manufacturers recommendations). Particularly during holiday periods but also at night and weekends if practicable. See 'School Holiday Energy Shutdown Procedure'.
	Improve ventilation in the server room	If you have a dedicated server room the air conditioner often cycles continuously. Use self closing fans to increase the room circulation and a control system that runs the fans at lower temperatures, then shuts the fans down and runs the air conditioner at higher temperatures.
	Purchase energy efficient equipment	Require suppliers to provide Energy Star compliant computers and office equipment (see www.energystar.gov.au)

Section 3

Achieving sustained good switch off practices in your school

It costs nothing to switch off. But because many things that use energy are silent and unobtrusive it can be hard to remember to switch them off when they are not needed. And sometimes people falsely believe that things like fluorescent lights shouldn't be switched off because they use a lot of energy to start up again. Behavioural change can be a challenge to achieve.

We recommend that school energy managers use the following process to achieve ongoing and sustained energy savings by encouraging everyone in the school to develop long-lasting better switch off habits:

- 1 Identify how much is being wasted – look at your bills
- 2 Set a target
- 3 Provide motivators
- 4 Launch the program
- 5 Develop / adapt checklists and labels
- 6 Have a shut-down verification week
- 7 Review bills to see how much has been saved.
- 8 Move onto the next step in the program

People will generally do something if its easy to do. Better results usually come when people commit to do just one small thing to start with. Then when they are asked to make a commitment that might require a bit more effort they are more likely to do so. Make the program easy, especially at the start.

1 Identify how much is being wasted.

A simple way of identifying electricity wastage is to examine off-peak energy use. Off peak hours are usually from 11pm to 7 am Monday to Friday, and on weekends. Usually schools are not occupied during these hours, so a school's off-peak electricity use is a good indicator of how good its night time switch off practices are. And if a school is good at night time switch off, the chances are its good at switching off at other times – for example at the end of class.

Most schools will show both off-peak and peak electricity use. Look at your latest electricity bill, then use the tables overleaf to see how much energy you use during off-peak hours. Considering that no one is usually at the school during this time how much do you think this be reduced by?

Look at OFFPEAK use on your MONTHLY electricity bill

Monthly off-peak electricity use (kWh)	Equivalent number of fluorescent lamps left on	Tonnes of greenhouse pollution generated over one year	Equivalent number of cars required to generate the same amount of greenhouse pollution over the month
1,000	69	17	3.9
2,000	138	33	7.8
3,000	207	50	11.7
4,000	277	67	15.6
5,000	346	84	19.5

Table 3 – Calculate the environmental cost of off-peak energy use based on MONTHLY bills

Look at OFFPEAK use on your QUARTERLY electricity bill

Monthly off-peak electricity use (kWh)	Equivalent number of fluorescent lamps left on	Tonnes of greenhouse pollution generated over one year	Equivalent number of cars required to generate the same amount of greenhouse pollution over the month
2,500	57	14	3.2
5,000	115	84	19.5
7,500	173	125	29.2
10,000	230	167	38.9
12,500	288	209	48.6

Table 4 – Calculate the environmental cost of off-peak energy use based on QUARTERLY bills

Security lights ¹¹, alarm systems, fire systems, exit signs, fax machines and computer servers normally can't be switched off, neither can fridges with perishables in them, and electric hot water services may be set to run during off-peak hours to reduce their running costs. A school of around 300 to 400 students is doing well if its monthly off-peak use is around 1,000 kWh, or its quarterly off-peak use less than 3,000 kWh. *How does your school compare?*

¹¹ Some studies have indicated that some public spaces can be safer at night if they are not illuminated. Consider investigating time controls that turn your security lighting off at say 11pm.

2 Set a target

Tell staff, students and cleaners how much is being wasted and jointly decide on a target. You may like to initially just set a target for reducing your off-peak electricity use – something relatively easy to achieve. Then later you might like to set a target for reducing your peak electricity use and your gas use. Give yourself a timeline – eg by the time the bill after next comes round we want our off-peak use to be 20% less than it is now. Communicate your goal to the whole school.

3 Provide motivators

Motivators might be:

- Fear – for example fear and concern about climate change.
- Recognition – for example a teacher or student being publicly praised
- Responsibility – for example a student appointed as a classroom monitor, or a teacher being appointed as responsible for night time shut down.
- Being seen as being a good citizen – doing my bit to slow climate change.
- Peer pressure – everyone is doing it so I should as well.
- Being consistent – doing what I've publicly said I'll do.
- The desire to save money.

Different people are motivated by different things – so provide a range of motivators.

Most of us, whether children or adults, are cynical when leaders tell us to do one thing to do something but don't practice what they preach. This de-motivates us.

We recommend:

- (a) Starting slow – don't make it too hard for the energy manager or for staff, students or cleaners.
- (b) Providing a range of motivators.
- (c) Being consistent – the school leaders should be seen doing the right thing.
- (d) Committing publicly.

4 Launch the program

A program launch is a public commitment and shows that the school is serious about reducing the environmental impact of its energy use. We would recommend that at the launch the schools' target be discussed, and publicly committed to.

5 Develop checklists and labels

Checklists and labels can help show us how and why to do the right thing, and also clear up any misunderstandings.

Classrooms are often very colourful places, with posters all over the walls. Any labels and checklists in classroom should be brought to the attention of staff and students, and be consistent in their theme and design. A certain colour could be associated with all labels to do with energy use. Some labels are included with this shut down package.

6 Have a shut down verification week

In the shut down verification week students or staff would be asked to go through the school at say lunchtime, or early in the morning before classes start, and list what has been switched off, and what has been left on. Do this every day of the week and don't forget to check staff rooms. Public praise for what has been switched off will reinforce good switch off behaviour.

7 Review bills to see how much has been saved

After the program has run for a full billing cycle review the bills to see how much has been saved. Gas bills are seasonal, so you may need to compare with the same bill at the previous time last year. To help track your bills we recommend using the 'Save Energy@School' CD which has an energy tracking spreadsheet on it.

Generally off-peak bills are pretty consistent through the year, so you probably don't need to go searching for last year's bill so that you can make the comparison.

Then report back to the school and to everyone who has been involved on how much has been saved. Consider providing public recognition to those who have been champions of the program.

8 Move on to the next steps

You may have started with something simple, like improved night time or improved lunch time shut down. Now consider switching off at the wall, or emptying fridges and turning them off over the holidays. After that you could then look at other times of day where wastage occurs, but its normally harder for people to remember to switch off. For example, switching off lights as more daylight comes into a classroom.

If staff and students are now habitually in the habit of doing something simple – like switching off at the end of class - they are now likely to be more willing to start to switch off at other times, and to begin switching off loads at the wall.



Further Information

The Save Energy@School CD and a copy of this guide is available from www.sofweb.vic.edu.au/facility/docResearch/KeyDocs.htm#6

The shutdown guide is part of the implementation of 'The Way Forward – An Environmental Sustainability Strategy for the Department of Education and Training'. Reducing energy use in schools will assist DE&T to meet the Government target of reducing energy consumption by 15% by June 2006. A summary of the strategy is available from www.deet.vic.gov.au/deet/resources/sustainability.htm.

The development and production of this guide has been contributed to by

Sustainability
Victoria



Department of
Sustainability
and Environment

This publication is protected by copyright. This publication may be copied for use by schools. Except as permitted above or under the Copyright Act 1968 (Cth) no part of this publication may be reproduced or stored, whether electronically or by any other process without the written permission of the Department of Education, Employment and Training, Victoria.

The opinions expressed in the publication are those of the authors and do not necessarily reflect the views of the Department of Education, Employment and Training. Whilst care has been taken in the preparation of this publication, no responsibility is accepted for any loss or damage arising from any errors or omissions whether negligent or otherwise. No responsibility for any loss occasioned to any person acting on or refraining from action as a result of the contents of this publication is accepted by the authors the Department of Education, Employment and Training or the Editorial Committee.



Knowledge&Skills
Building a Future

