



# THE ENERGY SAVING PLAN

A guide for schools in how to become energy efficient

## CHECKLIST: for implementing a successful Energy Saving Plan

CHECKLIST:	√
• Gain the support of the school principal	
• Gain the support of the Learning Services General Manager	
• Gain the support of parent representatives	
• School principal to publicly assign individual to initiate and oversee the planning and implementation of the Energy Saving Plan	
• Other:	
•	
•	
•	



## ESTABLISH YOUR ENERGY SAVING TEAM

ENERGY SAVING TEAM:	NAME:	SIGNATURE:
Coordinator		
Campaign Manager		
Monitoring Manager		
Reporting Manager		
Other:		
Other:		
Other:		

### Declaration of Commitment

In keeping with our school's policy of continuous improvement (SCHOOL NAME) \_\_\_\_\_ is committed to responsible energy management and will practice energy efficiency throughout all our buildings and equipment.

### Purpose

This plan signifies our commitment to control the level of energy consumed in the provision and delivery of its services by realising ongoing savings in our energy operating budgets and to quantify and regularly report on those savings to our school community.



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## IDENTIFIED ENERGY SAVING OPPORTUNITIES

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## OBJECTIVES

### a) Energy Saving Objectives


### b) Energy Awareness Objectives






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## c) Target Audience


## d) Our Message


## e) Communication Tools Required




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## ACTION PLAN/STRATEGIES

The following are examples of Energy Saving Strategies you may wish to implement at your school in order to meet your objectives. Tick the strategies that you think you could use at your school remembering those that fit within your budget priorities.

<b>ENERGY SAVING STRATEGY</b>	√
<b>HEATING &amp; COOLING:</b>	
Ensure heating systems are not left on unnecessarily outside school hours and that room heaters are off during lunch breaks if practical.	
Regularly maintain heaters and boilers	
Run evening classes and meetings in rooms with their own heaters so central heating is not required	
Fit a digital temperature and time controller to central heating	
Set thermostats at the lowest comfortable temperatures in winter (18 – 20°C) and a minimum of 24°C in Summer.	
Switch off procedures for all rooms in the school (checklist templates on page 10)	
Eliminate the use of electric fan heaters	
Turn off any pilot lights over summer and during holiday periods	
Reduce hot and cold draughts through doors by weather-stripping, installing door closers or building wind breaks	
In rooms with large north and west facing glass areas, cover some windows with insulated panels (such as noticeboards) to reduce winter heat losses and summer heat gains	
In rooms with high ceilings, use ceiling fans in winter on a low setting to recirculate warm air from the ceiling downwards and in summer reverse the direction of the fan to achieve a cool breeze	
Use fans or evaporative coolers instead of refrigerated air conditioners	
Open doors and windows to increase natural ventilation when outside air is cooler	
Close doors if refrigerated air conditioning is being used	
Shade and seal skylights to reduce summer heat gain	
Review automatic controls/timers for lights and heating	
When buying new equipment, check it's energy star rating to ensure that it is as energy efficient as possible	



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ENERGY SAVING STRATEGY	√
<b>LIGHTING:</b>	
Implement a change over program from old lighting to new energy saving lighting (tri-phosphor tubing and more efficient light globes)	
Make the most of natural light	
Ensure lights are switched off during breaks and after school. Teachers or student monitors could help with this task	
Install daylight and/or movement sensors to control lighting. A variety of options are available, from individual controls to school wide systems	
Clean light fittings and remove or replace inefficient reflectors and diffusers. This can double light output.	
Remove some lamps in areas where less light is needed, such as in corridors, near windows and above shelving (De-lamping see note)	
When repainting, select light colours and avoid heavily textured finishes that absorb light	
Rewire lights so they are grouped in energy efficient configurations. For example, lights near windows should have a separate switching system to those in dim areas within a room.	
Label light switches so only those needed can be identified and switched on	
<b>HOT WATER:</b>	
Avoid using hot water when not necessary	
Review hot water system thermostats	
Ensure taps are turned off tightly and leaks promptly attended to	
Insulate hot water distribution pipe work to minimise heat losses	
Ensure the temperature of domestic hot water storage units is not set above 60°C (Gas systems should be set to 50°C or 40°C in bathrooms)	
Depending on site and usage, replace large central units with a number of small efficient units located close to where hot water is required	
Fit a timer to electric water heaters operating on day rate, to keep the hours of operation to a minimum	
Use natural gas hot water heating wherever possible	

**Note:** *De-lamping. Often more fluorescent lamps are installed in classrooms than necessary. By using high efficiency, tri-phosphor tubes, fewer lamps can be installed and yet effective light levels can be maintained or increased. Re-lamping older fluorescent lamps with fewer tri-phosphor tubes is called de-lamping. Typically schools can save about \$50-\$60 per classroom each year.*



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<b>ENERGY SAVING STRATEGY</b>	√
<b>OFFICE AND OTHER SCHOOL EQUIPMENT:</b>	
Ensure new equipment is as energy efficient as possible and has an automatic 'sleep mode' activated. Look for 5 star ratings	
Develop guidelines for major purchases such as for photocopiers, kilns, security lights, heaters and coolers	
Ensure energy saving options are used on photocopiers and computers	
Switch off equipment when it is not needed <ul style="list-style-type: none"><li>• Manually – by operators or designated monitors or teachers</li><li>• Automatically – using timers, movement sensors or other devices</li></ul>	
When buying appliances such as refrigerators, freezers, clothes dryers and hot water systems, look for the energy rating label and choose appliances with a high star rating	





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## SWITCH-OFF CHECKLISTS

### Classroom Switch-off Checklist

The classroom switch-off checklist is designed for a student or teacher to implement.

#### Some Tips:

- Regularly rotate the Energy Saving Monitor so that each student (or staff member) gets a turn.
- Copy the classroom 'switch off checklist' and laminate it, then stick it on the classroom wall.
- Have it filled in by the monitor with a marker pen which can be rubbed out at the end of each week, then re-used the following week.

### End of Day Switch-off Checklist

The end of day switch off checklist is designed for a staff member to implement which can be regularly rotated (perhaps by whoever locks up at night). This checklist is designed to be used to check that everything is being switched off at night. After a while, once everyone gets used to switching off, you may only need to do this once a week.

#### Some Tips:

- Try to list everything not covered by the Classroom Switch off checklist and you may even want to mark the location of each appliance on a map.
- If you have several staff rooms, the list could be rotated among staff in that area. This could also be laminated and kept on the wall in the staff room.



### Term Break Switch-off Checklist

This switch off checklist is to be implemented by the SEO or Principal (or the cleaner) at the end of each term. It includes everything from the other checklists but includes some bigger appliances which won't be needed while the school is empty.



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## CLASSROOM SWITCH-OFF CHECKLIST

### Recess Switch-off

Completed (tick)					Turn off the following
Mon	Tues	Wed	Turs	Fri	
					Lights
					Computers
					Heaters/fans
					Air conditioners
					Printers
					Other appliances

### Lunch Time Switch-off

Completed (tick)					Turn off the following
Mon	Tues	Wed	Turs	Fri	
					Lights
					Computers
					Heaters/fans
					Air conditioners
					Printers
					Other appliances



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## After Class Switch-off

Completed (tick)					Turn off the following
Mon	Tues	Wed	Turs	Fri	
					Lights
					Computers
					Heaters/fans
					Air conditioners
					Printers
					Other appliances



## END OF DAY SWITCH-OFF CHECKLIST (FOR STAFF)

The end of day switch-off checklist is designed for a staff member to implement before leaving the building. It is recommended that a roster be developed on a weekly/monthly basis. Keep the checklist in a central place e.g. the staffroom where everyone can see that it is being adhered to.

Completed (tick)					Turn off the following
Mon	Tues	Wed	Turs	Fri	
					Computers in labs
					Office computers
					Radios and other appliances in staff areas
					Central air conditioners/heaters
					PA system
					Tea and coffee boilers
					Fans
					Check that windows and doors are secure
					Other appliances



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## TERM BREAK SWITCH-OFF CHECKLIST

Completed (tick)	Turn off the following	Location
	Air Conditioners/heat pumps switched off at switchboard	
	Computer and office equipment at the wall	
	Fridges empty, cleaned out and switched off at wall	
	Everything on the 'End of Day Switch off checklist' is completed.	



### VERY IMPORTANT

Check with your maintenance contractor before shutting anything off at the switchboard.

Have them label everything very clearly and make sure that emergency systems are not switched off.

Be aware, that larger sites will have sub-switchboards that will also need to be labelled and checked before shutting off.

Please note that only qualified electricians should access electrical switchboards. Please contact your electrical maintenance contractor to carry out this work.