

Energy efficiency checklist

Use this checklist from the Energy Saver Aged-care toolkit to walk around your site and identify opportunities for energy savings. Refer to section 4 of the toolkit for further background information on each area.

Building fabric		Action required
Section 4 Page 11	Check ceiling space for insulation. Is there 100% coverage, could it be improved?	
	Are all external doors and windows sealed to stop draughts. Also check skylights for air gaps.	
	Are there any opportunities to add external shading or tinting to windows that get a lot of summer sun?	
	Are windows fitted with curtains and pelmets to reduce heat loss during winter?	

Lighting		Action required
Section 4 Page 12	Are windows, light fixtures and skylights clean?	
	Are there areas where skylights could be installed to reduce the need for artificial light?	
	Buy a lux meter and find out what your lux levels are. Check these against the standards.	
	Are there any opportunities to delamp in overlit areas?	
	Do staff know where light switches are, or how they are controlled? Are switches labelled?	
	Are any empty areas lit unnecessarily?	

Lighting (continued)		Action required
	Where can timers, occupancy sensors or daylight sensors be linked to lighting?	
	Do you have old T8 fluorescent lighting? These can be replaced with T5s.	
	Do you have 50 W halogen lamps? These can be replaced with Light-Emitting Diodes (LEDs).	

Air conditioning		Action required
Section 4 Page 16	Check temperature setpoints (optimum settings are 20°C for heating in winter and 24°C for cooling in summer).	
	Can a dead band be set around the temperature setpoint?	
	Do staff know how to control the air conditioning? Do they override the controls? Why?	
	Are temperature sensors located in areas that will represent the room's temperature? (not blocked by furniture or next to entry ways)	
	Are any empty areas being air conditioned?	
	Where can timers, occupancy sensors or open-window detectors be linked to the air conditioning?	
	If a centralised air conditioning system is used, does it use an outdoor air economy cycle, variable-speed drives or timers and controllers?	
	If a centralised air conditioning system is used, is the supply and return ductwork and pipework insulated?	
	Are any air conditioning units past their end of life? (7–10 years for a room unit up to 10 kW, or 10–15 years for a packaged air conditioning unit 10 kW to 100 kW). If so, investigations should be made into upgrading these.	
	Is a maintenance schedule followed for cleaning and replacing filters, and inspecting ducts and pipework for signs of damage or wear and tear?	

Heating		Action required
Section 4 Page 19	Do heaters have programmable controls and thermostats?	
	Ensure system operating hours match the times when heating is required as needs vary throughout the day. Fit time switches to automate this process.	
	Do you have radiant heaters in bathrooms? Change these to heat lamps and link their operation to the light switches.	
	Are you using a convection heater to heat large rooms with high ceilings? If so, consider installing a fan and switch on its winter cycle to move the hot air from the ceiling down the walls to the floor.	
	Is it time to upgrade your heating system to either gas or reverse cycle air conditioners?	
	If you have a gas central heating system, are gas boilers serviced regularly? Is a combustion analysis undertaken during this service? Ask for this to be included. Running efficiencies should be at least 80 per cent.	

Hot water		Action required
Section 4 Page 20	Do you have water-efficient devices in bathrooms and kitchens? Reducing your use of hot water will also reduce your energy use.	
	Check your hot-water pipework system. Is it insulated?	
	If your pipework is insulated, at what temperature are you running your hot-water storage? A minimum of 60°C is required. Reduce this temperature to meet this and check outlet temperatures at the end of pipe runs.	
	If you have a separate hot-water system servicing your laundry or kitchen, install a timer on its recirculating pump to turn it off overnight.	
	Is it time to upgrade your hot-water system? If so, investigate options for a solar or gas hot-water system.	

Laundry		Action required
Section 4 Page 22	Investigate the potential to install an ozone laundry system if you don't have one already.	
	Is it time to upgrade your dryers? Look for equipment with heat recovery and moisture sensors.	

Kitchen		Action required
Section 4 Page 23	Is your exhaust fan running when the kitchen is empty? Investigate the potential of putting this on a timer, heat sensor or installing a Variable Speed Drive (VSD) on the fan motor.	
	Check refrigerator and cool room door seals.	
	Are condensers and evaporator coils clean and free of dust? Do any condensers need replacing?	
	Check that temperature sensors in cool rooms are in a suitable location and that they work (either by an ice bath or with another thermometer).	
	Check that refrigerant levels are correct.	
	Do you know when your defrost cycles occur? Can these be reduced or moved to off-peak times? (check with the manufacturer's recommendations)	
	Does your cool room have Electronically Commutated (EC) fans? If not, consider retrofitting these.	
	Do you have a startup and shutdown schedule for kitchen equipment?	
	Do you need to purchase new kitchen equipment? Take the operating energy costs into account when weighing up the costs of different equipment. Gas appliances will be cheaper to run.	

All equipment and appliances		Action required
Section 4 Page 24	Is equipment left on out of working hours or when not required?	
	Install timers on equipment where you can (e.g. printers, zip boilers, vending machines)	
	Upgrade to a multi-function device instead of using separate printers, photocopiers and fax machines.	
	When buying new appliances check the energy star rating label.	

Notes: