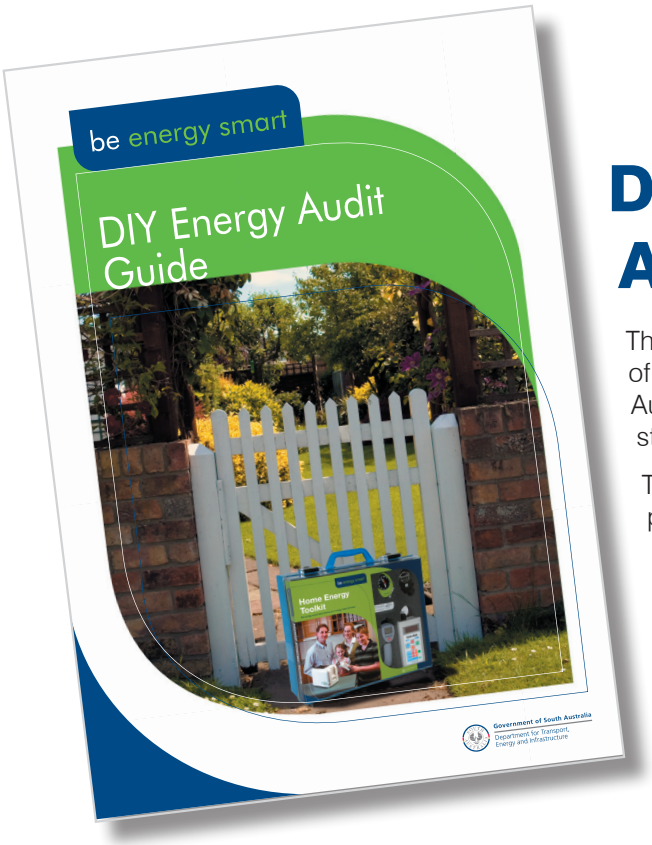
be energy smart



DIY Energy Audit Action Plan

This DIY Action Plan is yours to keep

The **DIY Energy Audit Action Plan** is a series of worksheets which you use with the DIY Energy Audit Guide. Some things you'll be able to do straight away, others may require planning.

Tick the first **AUDITED** box when you have done your audit of that particular aspect.

Tick the second yellow **TO DO** box if there is some action you can take to reduce your use of energy. Note: not every action will apply to your household. Make a note of what you intend to do – the **ENERGY-SAVING TIPS** column has some general suggestions.

Finally, tick the third **DONE!** box when you have completed the action.

In the example below, this household has reviewed lighting and one of their actions is to replace incandescent light globes with CFL's.

Lighting

AUDITED	ENERGY-SAVING TIPS	TO DO	WHAT WE CAN DO	DONE!
1. Maximise your use of daylight				
✔	Can you make better use of daylight ?			
	Skylights & light tubes let in more light than same size windows	✔	Look at installing skylight for kitchen	
	Translucent panels on verandahs/carports may let light into windows			
	Window films maximise daylight and reduce heat transfer			
	Light coloured walls & mirrors, strategically placed, reflect light	✔	Place a mirror at end of hallway	✔
2. Use energy-efficient lights & fittings				
✔	Can you replace light globes with more efficient alternatives ?			
	Halogen - more efficient than incandescent light			
	Compact fluorescent (CFL) - more efficient than halogen	✔	Change household lights over to CFL's	
	Fluorescent tube - ideal for work areas such as kitchens and garages	✔	Install a fluorescent light in garage	✔
	LED's - more efficient than fluorescents			
✔	Are you using the lowest wattage lighting needed ?			
	Can replace an incandescent globe with a CFL at 1/4 the wattage	✔	Use 15 watt CFL to replace incandescent	
✔	Are you making the most of your existing lighting ?			
	Regularly clean light fittings with reflectors or diffusing covers	✔	Regularly clean light fittings	✔
	Light coloured light shades "throw" more light			
3. Ensure lights are switched off				
✔	Are you switching off lights regularly ?			
	Switch off lights when not needed	✔	Regularly switch off lights	✔
	Consider motion detector and timer switches for internal/external use			

Notes: Purchase CFL's from hardware store

When you've completed your **DIY Energy Audit Action Plan** worksheets we recommend that you pick out your Top 3 actions and write them below along with a target date.The Energy Saving Best-bets on the back page will help you make your choice – they are a guide to the approximate cost and likely impact of many of the common actions you can take.

TO DO

Your Energy Audit Action Plan – Top 3

		Target Date
1		
2		
3		

Government of South Australia
Department for Transport, Energy and Infrastructure

Heating and Cooling

AUDITED	ENERGY-SAVING TIPS	TO DO	WHAT WE CAN DO	DONE!
	1. Maximise your use of winter sun – it's free solar heating !			
☐	Are you able to take best advantage of winter sun heat ?			
	Windows and glass doors facing north of most benefit	☐		☐
	Trim trees/shrubs to let winter sun in	☐		☐
	Hard floor surfaces e.g. concrete/tiles will retain the sun's heat during winter	☐		☐
	2. Provide shade from summer sun - reduce your need for cooling			
☐	Are you able to stop sun shining directly onto glass facing north, east & west ?			
	Best approach is to keep sun's heat off glass - use blinds/awnings	☐		☐
	Deciduous trees/vines stop summer heat whilst permitting winter sun heat	☐		☐
	Best window treatments will reflect heat but still let in natural light	☐		☐
	Close curtains/internal blinds	☐		☐
	3. Insulation prevents heat loss or gain – it keeps you warm & cool			
☐	Is your home effectively insulated ?			
	Ensure satisfactory *R value* insulation in the ceiling	☐		☐
	If possible to do, install wall insulation	☐		☐
	Pelmets stop draughts caused by airflow between curtains + windows	☐		☐
	Thick lined curtains can help to keep heat in	☐		☐
	4. Keep doors closed & check for draughts			
☐	Is your home draught proofed ?			
	Check for draughts	☐		☐
	Most draughts can be fixed with inexpensive sealing strips & gap filler	☐		☐
	5. Make use of air movement – for more effective cooling & heating			
☐	Are you making use of summer breezes + using ceiling fans ?			
	Consider how best to take advantage of evening cool breezes	☐		☐

AUDITED	ENERGY-SAVING TIPS	TO DO	WHAT WE CAN DO	DONE!
	Louvres at either end of your home can be very effective			
	In winter reverse ceiling fan to quickly push warm air to all areas of room			

6. Know which heater & cooler to use

Do you use appropriate energy efficient appliances ?

Choose to primarily heat a person, room/space or whole home			
Choose radiant or convection heating - portable or fixed			
If convection heating needed, heater size is all important			
Choose evaporative or refrigerative cooling - portable or fixed			
Evaporative cooling is very effective in SA, with relatively low running costs			
Choose right size appliance/equipment with high # of stars on energy rating			

7. Get the best out of your heater & cooler

Are you maintaining your heating + cooling appliances/equipment ?

Check appliance/equipment manual for maintenance instructions			
Outdoor split system units should be shaded from direct sunlight			
Keep radiant heater reflectors dust free + clean air con filters regularly			

8. Only use the heating & cooling you need

Are you only heating/cooling necessary areas ?

In general heat/cool the smallest area (zone) needed			
Consider installing sliding doors or similar to zone off different areas			
If you have ducted refrigerative air con make use of zone controls			
Open home up for ducted evaporative cooling			

Are you adjusting T° settings to minimise running costs whilst maintaining comfort ?

Set heater T° to minimum you feel comfortable with (ideally 18-21° C)			
Set cooling T° to maximum you feel comfortable with (ideally 24-27° C)			
Fans cost 1-2c/hour to run. Can be used to assist other heating/cooling			

Water Heating

AUDITED	ENERGY-SAVING TIPS	TO DO	WHAT WE CAN DO	DONE!

1. Choose the most efficient water heater

Most new/replacement systems must be solar, electric heat pump or high efficiency gas

☐ Do you have a water heater replacement plan ?

- Plan ahead for the most energy efficient, affordable option
- Consider solar water heating to save heating approx 70% of water
- Solar collectors best on north facing roof receiving min 5 hours sun/day
- Plan for replacement water heater to be close to major points of use

2. Get the best out of your water heater

☐ Is your tap/showerhead hot water T° ok ?

- Check hot water taps deliver water at T° required
- Ensure bare hot water pipework is insulated ('lagged')

3. Only use the hot water you need

☐ Can you reduce wastage of hot water ?

- Check your shower flow rate - ideally should be 9 litres/minute or less
- Ensure 3 star shower heads are installed
- Consider installing 3 star aerators to reduce hot water flow
- Consider reducing shower time
- Generally a shower uses less hot water than a bath
- Fix dripping hot water taps and shower heads
- Wash clothes in cold water
- Only run dishwasher when full

Notes

Fridges & Freezers

AUDITED	ENERGY-SAVING TIPS	TO DO	WHAT WE CAN DO	DONE!
	1. Review fridge/freezer locations in your home			
☐	Are your fridge/freezers in a cool, well ventilated position ?			
	Fridge/freezers should be located in a cool position, away from heat sources			
	Air should circulate freely around fridge/freezers			
	Fridge/freezer should able to be easily moved for cleaning coils at back			
	2. Choose the right refrigeration appliance for your needs			
☐	Do you have the right size energy efficient fridge/freezers ?			
	Generally cheaper to run one large refrigerator than 2 smaller ones			
	Choose right size fridge/freezer with high # of stars on energy rating label			
	3. Operate your fridge/freezer efficiently			
☐	Do you switch off/or need 'spare' fridge/freezers ?			
	If fridge/freezer in shed/on verandah, switch off when not needed			
	If you don't need it, consider getting rid of it!			
☐	Are your fridge/freezers running efficiently ?			
	Energy use high? Is fridge/freezer operating efficiently ? see below			
	Recommended fridge temperature is 3 to 5°C			
	Recommended freezer temperature is -15 to -18°C			
	Regularly clean external coils on back of fridge/freezer			
	Door seal should grip a piece of paper - check at different points			
	If door seal not insulating effectively replace it			
	Defrost regularly - if not a frost free model			

Notes

Lighting

AUDITED	ENERGY-SAVING TIPS	TO DO	WHAT WE CAN DO	DONE!
	1. Maximise your use of daylight			
☐	Can you make better use of daylight ?			
	Skylights & light tubes let in more light than same size windows	☐		☐
	Translucent panels on verandahs/carports may let light into windows	☐		☐
	Window films maximise daylight and reduce heat transfer	☐		☐
	Light coloured walls & mirrors, strategically placed, reflect light	☐		☐
	2. Use energy-efficient lights & fittings			
☐	Can you replace light globes with more efficient alternatives ?			
	Halogen - more efficient than incandescent light	☐		☐
	Compact fluorescent (CFL) - more efficient than halogen	☐		☐
	Fluorescent tube - ideal for work areas such as kitchens and garages	☐		☐
	LED's - more efficient than fluorescents	☐		☐
☐	Are you using the lowest wattage lighting needed ?			
	Can replace an incandescent globe with a CFL at 1/4 the wattage	☐		☐
☐	Are you making the most of your existing lighting ?			
	Regularly clean light fittings with reflectors or diffusing covers	☐		☐
	Light coloured light shades "throw" more light	☐		☐
	3. Ensure lights are switched off			
☐	Are you switching off lights regularly ?			
	Switch off lights when not needed	☐		☐
	Consider motion detector and timer switches for internal/external use	☐		☐

Notes

Other Home Appliances

AUDITED	ENERGY-SAVING TIPS	TO DO	WHAT WE CAN DO	DONE!
	1. Cooking			
☐	Do you use + maintain the most energy efficient appliances ?			
	Where appropriate, use microwave rather than conventional oven			
	Where appropriate, use toaster rather than oven grill			
	Where appropriate, use kettle rather than hotplate			
	Match size of saucepan to size of hot plate/burner			
	Ensure oven door seal in good condition - replace, if not			
	2. Entertainment/Electronics			
☐	Do you use energy efficient appliances + minimise energy use ?			
	Buy energy efficient appliances with low standby power			
	Buy energy star home office equipment eg. computers			
	Activate any energy saving features on home office equipment			
	Be aware of energy use in normal operating + standby power mode			
	Switch appliances off at power board/wall switch when not in use			
	3. Clothes Washing/Dishwashing/Small Appliances			
☐	Do you use energy efficient appliances + minimise energy use ?			
	Choose required capacity with high # of stars on the energy rating label			
	Front loaders are usually more energy efficient than top loaders			
	Wash in cold water			
	Choose lowest water T° and shortest wash cycle			
	Keep lint filters clean			
	Use clothesline when possible			
	Run dishwasher only when full			
	Minimise pool filter run time to minimum recommended			

Energy-Saving Best Bets

be energy smart

This table rates various energy-saving actions in terms of their approximate cost and likely impact. Zero cost actions are straightforward but may require a commitment from members of your household to do things differently – such as always switching off lights when they leave a room. Low impact actions will still help reduce your energy consumption and are worth doing.

$ = Cost	**0** = *Zero cost* **L** = *Low cost* **M** = *Medium cost* **H** = *High cost*
***I* = Impact**	**L** = *Low impact* **M** = *Medium impact* **H** = *High impact*

Heating and Cooling	$	I
Insulate ceilings and, if possible, walls	H	H
Shade north, east and west facing windows	M	H
Cross ventilate in evening to cool home	0	M
Close doors to only heat/cool areas needed	0	H
Retrofit sliding doors or other to assist only heating/cooling areas needed	M	H
Install pelmets where curtains used	M	M
Set heating T° to minimum you feel comfortable with (suggest 18-21°C)	0	H
Set cooling T° to maximum you feel comfortable with (suggest 24-27°C)	0	H
Draught proof your home - seal doors, windows	M	M

Water Heating		
Plan replacement water heater for solar, electric heat pump or high efficiency gas	H	H
Wash clothes in cold water	0	M
Only run the dishwasher when full	0	M
Reduce shower time	0	M
Change to 3 star shower heads and tap aerators	L	M
Fix leaking hot water taps	L	M
Insulate ('lag') water heater pipes	L	M

When purchasing a new appliance any small extra cost for a high efficiency model will more than repay your investment in ongoing energy savings	L	H

Fridges and Freezers	$	I
Consider getting rid of your additional fridge/freezers	L	H
Turn off additional fridge/freezers when not needed	0	H
Ensure fridge/freezers are located away from heat sources and are well ventilated	0	M
Check fridge temperature is between 3 and 5°C	0	M
Check freezer temperature is between -15 and -18°C	0	M
Replace door seals if not insulating properly	L	M
Clean external coils at back of fridge	0	L

Lighting		
Replace energy inefficient incandescent globes with halogen, CFL's or LED's	L	M
Replace downlight globes with CFL's or LED's	M	M
Consider installing a skylight to bring natural light into areas where lighting is frequently used	M	M
Switch off lights when not needed	0	M
Regularly clean light globes and shades	0	L

Other Home Appliances		
Replace ineffective oven door seal	L	M
Switch off appliances/equipment at the wall or power board when not in use	0	M
Choose energy efficient appliances with low standby power	0	M
Regularly dry clothes on clothesline	0	M
Minimise pool filter run time to minimum recommended	0	H

For more energy advice:

www.energy.sa.gov.au/energysmart

8204 1888 or Freecall 1800 671 907

dtei.energy@sa.gov.au

Government of South Australia
Department for Transport, Energy and Infrastructure