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Energy Saving Projects

Simple Home Energy Audit

This Simple Home Energy Audit is a step-by-step process that can highlight ways to be more energy efficient within your household and help you to reduce your energy costs and greenhouse gas emissions.

This simple home energy audit involves a walkthrough of your household to determine how you currently use energy and then compare that usage to the most energy efficient practices.

Performing a home energy audit can help to lower your energy costs, and in turn, reduce your impacts on climate change by reducing greenhouse gas emissions.

The energy audit worksheet is a useful source of information when performing a home energy audit. The worksheet steps you through the different energy usage areas of the home, such as water heating, heating and cooling, lighting, etc.

For each area you are asked questions about your energy usage and answers are classed as either high energy use, moderate energy use or efficient energy use.

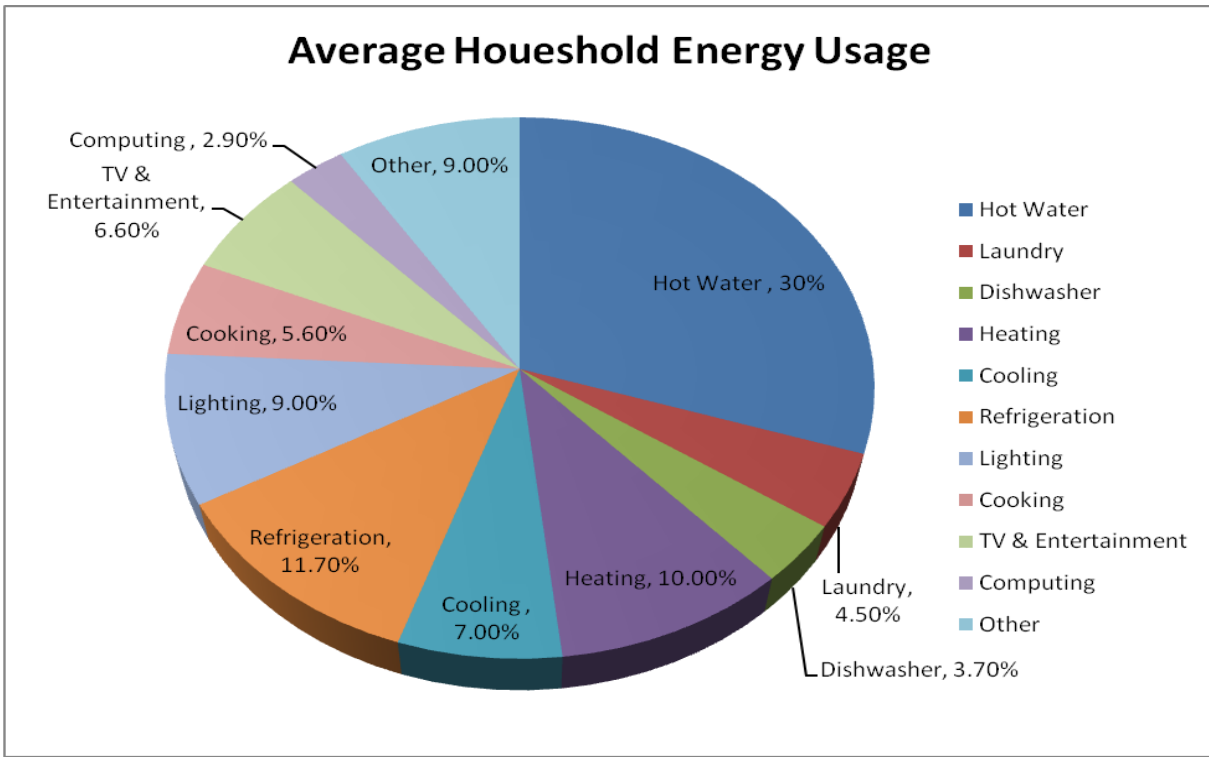
Information on energy efficient practices and technologies is provided to help reduce energy consumption for the areas that are considered high energy or moderate energy use.

Reduce your **energy** costs at home

This simple worksheet will help you find practical ways to save energy at home.

By comparing your current practices with energy efficient ways, you will be able to identify the steps you can take to becoming an **energy star**.

For a typical household, this could mean reducing energy bills by hundreds of dollars every year. So where do I use energy in my home?



Energy use in a typical home
Source: Kenesis Study for LMCC.

The graph above shows a breakdown of energy use for a typical Newcastle Region home. Of course all homes and people are different, so please use these figures as a guide only.

The benefits of saving energy

An energy efficient home incorporates common sense design principles, selection of the most appropriate fuel sources and energy efficient appliances and technology. This results in:

- a reduced need for expensive heating and cooling appliances
- reduced appliance running costs, and therefore energy bills
- reduced greenhouse gas emissions.

How to reduce your impact on climate change

Every time you turn on a household appliance, greenhouse emissions are released into the atmosphere.

If you think of one balloon representing 50 grams of greenhouse gas, the average household produces around 160,000 balloons of greenhouse gas each year.

But you can do something about it. By using less energy or using green energy you can reduce your greenhouse gas emissions, and in turn, your impact on climate change.

How to complete the worksheets

(Allow around half an hour)

How do you use energy?	Your energy use is closest to...			Energy Star Action
	high energy use	moderate energy use	energy efficient	
What types of lights do you have?	Incandescent or halogen lights	Some fluorescents ½	Mainly fluorescents ★	Fluorescent lights use much less energy and are cheaper to run than incandescent globes or halogen "down lights". Compact fluorescents can replace incandescent globes that are not on dimmer circuits - especially those used for a few hours per day.
Do you regularly turn off lights?	Lights left on all the time	Lights turned off occasionally ½	Lights turned off when no one in the room/area ★	It's ok to turn fluorescent lights off when you leave the room - even for only a few minutes (it's an old myth that this is a waste of energy). Motion sensors can be used to automatically control outside lights.
Your total	0	½	1	= 1½ /2 stars

Example of how to complete your worksheet.

1. Work your way through each of the tables in this guide (A to J).
2. Ask yourself each of the 'How do you use energy?' questions. Then circle the response that best matches your current energy use practices.
3. Each response has a star rating. Note the number of stars that corresponds to your answer.
4. Where you scored less than the maximum number of stars, read through the 'energy star actions' to identify the actions you can take.
5. Tally up your results for this table. How do you compare?
6. When you've completed all the tables, use the Energy Star Summary table to summarise your energy star actions. Specify a date when you'll do each of these – and try to stick to this.

What else do I need to know?

1 Checking your hot water temperature

If you don't know your water heater's thermostat setting, measure the delivered water temperature by placing a thermometer under a running hot water tap that is closest to the

water heater. Delivered water temperature may be a few degrees lower than tank temperature.

2 Measuring shower head and tap flow rates

To measure shower and tap flow rates, turn the hot water tap on full and let it flow into a bucket for 10 seconds. Measure the amount of water in litres. Multiply by six for the flow rate in litres per minute. Take care to avoid spilling the hot water.

3 Measuring fridge and freezer temperatures

To measure the temperature inside your fridge or freezer, place a thermometer to the back and bottom of the fridge or freezer and leave it for several minutes.

4 Checking for draughts

Sources of draughts can be observed by either looking for daylight around the edges of doors and windows, looking for gaps around skirting boards; feeling draughts on a wet finger, or using a lit incense stick to observe the flow of air (where there is a draught the smoke will jiggle around, rather than rising vertically).

5 Measuring living area temperatures

Living room temperatures can be measured with a thermometer near where people tend to be in the room or by the thermostat setting on the heater or cooler. Note: there may be a few degrees difference between the thermostat setting and the room temperature.

Further information about this Audit process

Information used in this Simple Energy Audit is based on the South Australian Government Energy Audit Program. Information has been changed to suit local conditions where necessary.

Participation in this Simple Energy Audit is Voluntary.

Disclaimer:
This information provided by Swansea Heads Sustainable Neighbourhood Group (SHSNG) has been provided in good faith for the benefit of the community to reduce their overall energy consumption and SHSNG cannot guarantee content or outcomes.

SHSNG confirm that the privacy of information provided to SHSNG Volunteers is considered paramount. Names, addresses, telephone Nos and email details will **not** be provided to any other parties.

Results of the energy audit process will be published in the next SHSNG community newsletter only and also compared with next years audit results in next years news letter.

Data to be published in the newsletter will include average energy star summary data for each area A to J for up to 90 households, quarterly average energy consumption averaged for up to 90 households. No specific houses will be identified.