FAMILY ENERGY EFFICIENCY
IN THE KITCHEN

Energy efficiency is using energy wisely and economically to sustain everyday life, live comfortably and support well-being.

SAVE MONEY | SAVE THE PLANET | LIVE WELL | FEEL GOOD

MACQUARIE University

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LIGHT THE WAY

Cooking only accounts for about 4-5% of your total energy bill but it can take a lot more of your time. Using your appliances efficiently can help make a difference.

COOK TOPS

Electric and gas stove tops are great for cooking but can be a substantial source of wasted energy.

- Using the right size pan matters. You want your pans to be as close as possible to the size of the burners. If your pan is only 15cm and you are cooking on a 20cm burner, over 40% of the heat will be wasted.
- Keep the lid on pots when possible to reduce heat loss. It makes the food cook faster and keeps the kitchen cooler.
- Pots and pans with flat bases allow for more contact with the heating elements, which heats your pan more efficiently.

Induction cook tops heat the surface of the pans directly without needing to heat an element or lose heat to the air. These are around twice as efficient as a standard electric element and the stove top does not get hot so they are safer and easier to clean. They provide very fast cooking with excellent temperature control, but cost more to purchase.

OVENS

When it comes to cooking, one of the largest energy consuming appliances is your oven. To use it more efficiently:

- Check the door seals for any air leakage. Replace the seals to prevent wasted heat, energy and money.
- Avoid pre-heating the oven unnecessarily.
- If possible, cook several things at once.
- Reheat or cook food in the microwave instead of the oven.
- Consider using smaller appliances like electric fry pans or slow cookers.

SLOW COOKERS

Slow cookers use significantly less energy than a stove top and you can leave them to cook while you get on with other things.

MICROWAVES

Microwaves use far less electricity than traditional electric ovens and can cook food much faster. Using a microwave can use up to 80% less energy when reheating food than a standard oven.

Some people think that microwaves can contaminate food. This is untrue. Microwaves cause water molecules in food to vibrate which produces heat needed to cook the food. This makes foods high in water content, like vegetables and soups, great for cooking in the microwave.

BOILING WATER

When boiling water, be it on the stove or in the kettle, only boil what you need. The more water you boil, the more energy is required to heat it. If you do accidentally boil too much, consider using it to wash the dishes when it cools down to a safe temperature.

FREEZING MEALS FOR LATER

Cooking in bulk and reheating meals later with a microwave is a convenient way to save time and effort but it does use energy to freeze, defrost and reheat the food.

There are some things you should know in order to always ensure the food is safe to eat. When it comes to freezing and thawing food, the NSW Food Authority recommends:

- Never thaw food at room temperature, bacteria grow best at this temperature. Food defrosts safely in the fridge.
- Only thaw food once. Bacteria can multiply when food defrosts.
- Never refreeze raw food, especially meat and poultry.
- Only refreeze food after it has been cooked thoroughly.
- Cooked leftovers should only be frozen once. After defrosting discard what is not eaten and never refreeze a second time.

For more information on food safety visit: *www.foodauthority.nsw.gov.au/*

Like you, fridges run all day every day. They make up around 18% of your energy bill but there are simple things you can do to reduce this cost.

It may be worth replacing an old fridge due to the high running costs.	A typical fridge manufactured 15 years ago uses about 3 times the energy of a fridge made today.
Getting rid of your second fridge is an easy way to save considerable money and energy.	Keeping a second fridge is likely to be costing you a significant amount on your energy bill.
Consider only switching on your second fridge when you absolutely need to, lke Christmas time.	If you decide to keep an old fridge for use as a second fridge, even if it is inefficient.
Storing foods at 3° to 5°C is recommended for fridges and -15° to -18°C for freezers.	Storing foods at colder temperatures uses more energy. Every degree lower requires roughly 5% more energy.
Make sure there is at least 75mm of air space around every side of the fridge and that it is not in a warm room.	A warm fridge requires more energy to stay cool.
Make sure the door seals are intact and replace them if they become worn or damaged.	A neglected fridge can become sluggish and draw more energy.
Try not to leave the door open for extended periods of time. However this is unlikely to use a lot of energy.	Opening the door of a fridge lets cold air out and warm air in, but this doesn't represent a lot of energy.