

Keeping it cool

A guide to making your fridge efficient

Fridges are one of the major energy users in the home, responsible for around 15% of household greenhouse emissions in Australia. Decreasing the energy consumption of your fridge can decrease your household greenhouse emissions significantly. It can also save you a lot of money on your power bills. Obviously, one of the best ways to do this is by choosing the most energy efficient fridge you can afford. But there are lots of other things you can try if you want to use your fridge more efficiently.

Buying a Fridge

- * Think carefully about the size. Too small and it will be overloaded and inefficient, too big and you'll waste energy chilling empty shelves.
- * Two door refrigerators are generally more efficient than one door models.
- * Models with a top or bottom freezer are generally more efficient than side by side models.
- * If you're buying a new fridge in the future, use energy labelling information to choose the model with the lowest energy consumption. The energy label provides both a star rating (comparative efficiency for units of the same size) and an annual energy consumption number. Focus on the consumption number rather than the star rating, as it gives a better indication of what the actual energy consumption is likely to be.
- * Automatic ice-makers and through-the-door dispensers will increase both the energy use and the purchase price.

One Fridge or Two?

- * One large refrigerator is usually cheaper and more efficient to run than two smaller ones.
- * Use an esky and ice to cool drinks on special occasions. If you must have a second freezer or refrigerator use it only when you really need it and turn it off when you aren't using it.

Placement of Fridge

- * Move your refrigerator away from the stove, dishwasher, direct sunlight and other heat sources so it won't have to work as hard.
- * Make sure there's plenty of air flow over coils and around the cabinet (preferably a gap of >80 mm); if the fridge is installed in a specially built alcove or cupboard, make sure there's good ventilation out of the top as well. Restricting ventilation could add 15% or more to your energy bill.
- * Don't use the top of your refrigerator as an extra kitchen shelf. A cluttered fridge top can block the air-circulation needed to keep it working efficiently.
- * Don't heat the kitchen in winter. The higher the room temperature, the more energy your fridge uses.

Temperature Setting

- * Don't set the temperature too low. A change of one degree can effect energy consumption by 5%. Freezers should operate at -15°C to -18°C while fresh food compartments should be held at around 3°C to 5°C.
- * Use a thermometer to check inside temperatures to see if your thermostat is working properly.

Keep The Door Closed

- * Remember to open the door as infrequently and as briefly as possible to keep the cold air in.
- * Keep your refrigerator organized so you don't have to stand there with the door open while you search for a food item.
- * Mark items in the freezer for quick identification so that you don't have to keep the door open longer than necessary.

Food Temperature and Wrapping

- * Put cold items back in the fridge immediately after use. Cooling a two-litre drink bottle that has warmed up to room temperature generates 10 times more greenhouse gas than opening the fridge door.
- * Allow food to cool before putting it in the fridge (but don't let it sit at room temperature for too long – this could be a health risk).
- * To ensure proper cooling, don't crowd food items. Too many dishes obstruct air circulation. In freezers, food packages should be scattered and should never be grouped or stacked together until they are completely frozen.
- * Cover liquids and wrap foods stored in the refrigerator. Uncovered foods release moisture and make the compressor work harder.
- * Replace paper wrappings on food items with aluminum foil or plastic wrap. Paper is an insulator.

Defrost Regularly

- * Defrost whenever the frost grows to around 5mm thick. Ice insulates and if it isn't removed before it becomes thick, the unit will become less efficient.
- * A manual defrost freezer can use 30-40% less energy than auto defrost, so try switching the auto off.

Fill It Up

- * A full fridge or freezer will perform better than a nearly empty one. When fridge space goes unused, your refrigerator continues to use energy to cool this space. Also, more cold air spills out when you do open the door if the refrigerator or freezer is nearly empty. Take empty milk jugs, or other plastic containers, fill them with water and then put them in your fridge and/or freezer. This will reduce the area to be kept cold. You should be careful not to overfill the space and restrict air flow.

Clean the Coils

- * Clean the condenser coils and the motor area at the back of the fridge with a brush or vacuum cleaner at least once every six months, as your refrigerator will cycle on for shorter periods with clean coils.

Seals and Gaskets

- * Make sure the door seals are clean and in good condition; if the closed door can't grip a piece of paper, it's time to get the seals replaced. It's not an expensive job; check the Yellow Pages and ring around for a quote.

Extra Features

- * Many refrigerators have small heaters (yes, heaters!) in the walls to prevent condensation on the outside. They may also have an energy-saver or power-saver switch to turn the heater off. Try leaving it off, unless you get noticeable condensation.
- * Consider turning off the butter conditioner since it is a little heater inside your refrigerator.

Turning it Off

- * If you are away for a holiday, turn off, empty and clean the refrigerator and leave the door ajar.

Faults

- * If the motor runs almost all the time, ring for maintenance: otherwise you will unnecessarily produce over 20 kilograms of greenhouse gas for each week the fault remains.

Disposal of Old Fridges

- * If you're going to throw out your old fridge, see if there's a chlorofluorocarbons (CFCs) recycler in your area. The government department which looks after the environment in your area may be able to help you, or you can contact the Moreland Energy Foundation.