



meridian

Energy and cost savings

Start here



ELECTRICITY SAVINGS™



save money & the environment

July 2008

At Meridian we're committed to helping you find ways to save energy at home, at little or no extra effort or cost. And by saving energy you'll save money, and help to protect the environment too.

We all have a role to play

As New Zealand's largest electricity generator, we take our responsibilities to New Zealand and the environment very seriously. We generate all our electricity using renewable resources – water (hydro) and wind. Using our resources wisely and efficiently today protects our environment and helps make sure we'll have ongoing supplies of energy for generations to come.

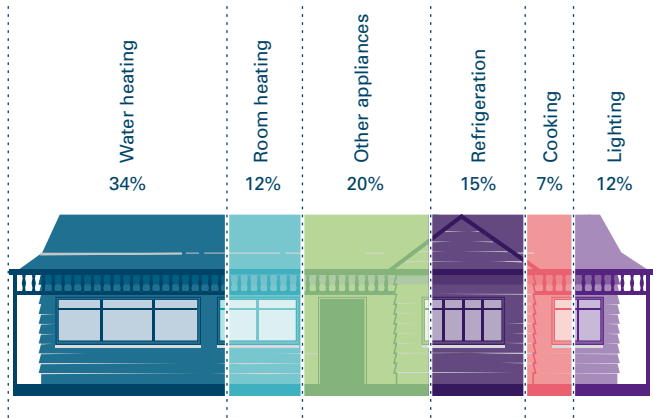
The part you play in using energy more wisely at home and at work is just as important. Saving even a small amount day-to-day can have a big effect on the environment and our future. You'll save money too!

We work closely with the Energy Efficiency and Conservation Authority (EECA). Jointly we've put together these simple and cost effective ways for you to save energy and money – at home and at work.

! New Zealand's residential "stand-by" load (electricity consumed by appliances doing nothing) consumes about \$147 million worth of electricity a year! The energy used to maintain "stand-by" can contribute up to 10% of your household energy bill.



The typical New Zealand household of four uses around 12,000 kW of electricity a year, which costs around \$2,500.* Here's where household electricity would go: #



Water heating – 34%

Water heating as a percentage of total electricity consumption varies geographically – for example, in the South Island and colder parts of the North Island, more energy is used on home heating. Long, hot showers and taking baths, plus doing hot laundry washes all power through your household hot water supply.

Room heating – 12%

The cost of keeping your home warm can be high – particularly if you live in a colder part of the country. Some forms of heating are more energy efficient than others and different heating methods suit different living areas or conditions. Good quality, well-installed insulation will significantly reduce the rate at which your house loses heat.

* Based on the average national residential electricity price of 20.24 cents per kWh (MED Energy Data File June 2007).

These figures are for electricity only and do not include any other forms of energy, such as gas or solid fuel.

Other appliances – 20%

About 10% of household electricity can just go on running your appliances on stand-by. If your appliances' lights and clocks are on, they're using power.

Refrigeration – 15%

Fridges are usually the single biggest energy consuming appliance you'll own. Old fridges in particular can be big power wasters. Many households have an older fridge or freezer that may live in the garage or basement. Generally, fridges over 10 years old use much more energy than modern fridges and continue to draw power even though they may not cool properly and can be poorly utilised.

Cooking – 7%

There are some easy ways to save energy here, without compromising on the flavour and nutrition of your food! For example, use lids when you're cooking as uncovered pots use more energy.

Lighting – 12%

With lighting using 12% of your home's energy, it's common sense, and very worthwhile, to remember to switch off lights when you leave a room. And the other good news is that standard energy efficient light bulbs use only one-fifth the energy of normal 100-watt light bulbs and last much longer.



If you are replacing appliances in your home, purchase the most efficient appliances you can. Look for ENERGY STAR® – the global mark of energy efficiency. Only products that use the least energy can carry the ENERGY STAR® mark.



The yellow and red star rating label tells you how much energy an appliance will consume. For a quick estimate of the annual running costs for new appliances, cover the last digit of the 'energy consumption' number on the 'star rating' label, double it, and turn the remaining figure into dollars. And remember to ask your appliance retailer to take away your old appliance – many are recyclable, which is not only safer but better for the environment.


Heating

- ! Damp homes use more energy to heat. Reduce condensation by leaving curtains, windows and doors open when you're home during the day. Dry air is easier to heat and better for your health.
- ! Block off your fireplace when you're not using it.
- ! Use a thermostat and timer on your heaters so they only come on when you need them and automatically turn them off once the right temperature is reached.
- ! Capture as much sunlight as possible—for example keep windows clean and free of overhanging trees.
- ! Close the doors of rooms you're heating.
- ! Close the curtains just before dark to keep the heat in.
- ! Remember to keep radiant heaters away from curtains and furnishings though to reduce fire risk.
- ! Only heat the room you're using.


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- \$ Seal gaps in windows and door-frames.
 - \$ Use a door 'snake' to keep draughts out of rooms you're heating.
 - \$\$ A ceiling fan may help you to distribute heat from the ceiling down into the room in winter and may also help cool your room in summer.
 - \$\$ Replace broken heating thermostats.
 - \$\$ Fit thermal lined curtains and make sure they sit close to the window frame.
 - \$\$ Double glaze windows in the rooms you use the most.
 - \$\$ Insulate the ceiling – hot air rises, so you lose the majority of your heat through your ceiling.
 - \$\$ Make sure you insulate under floors and if possible in your walls.
 - \$\$ Install a heat pump – choose an ENERGY STAR® qualified heat pump and you could save up to \$170 a year.##

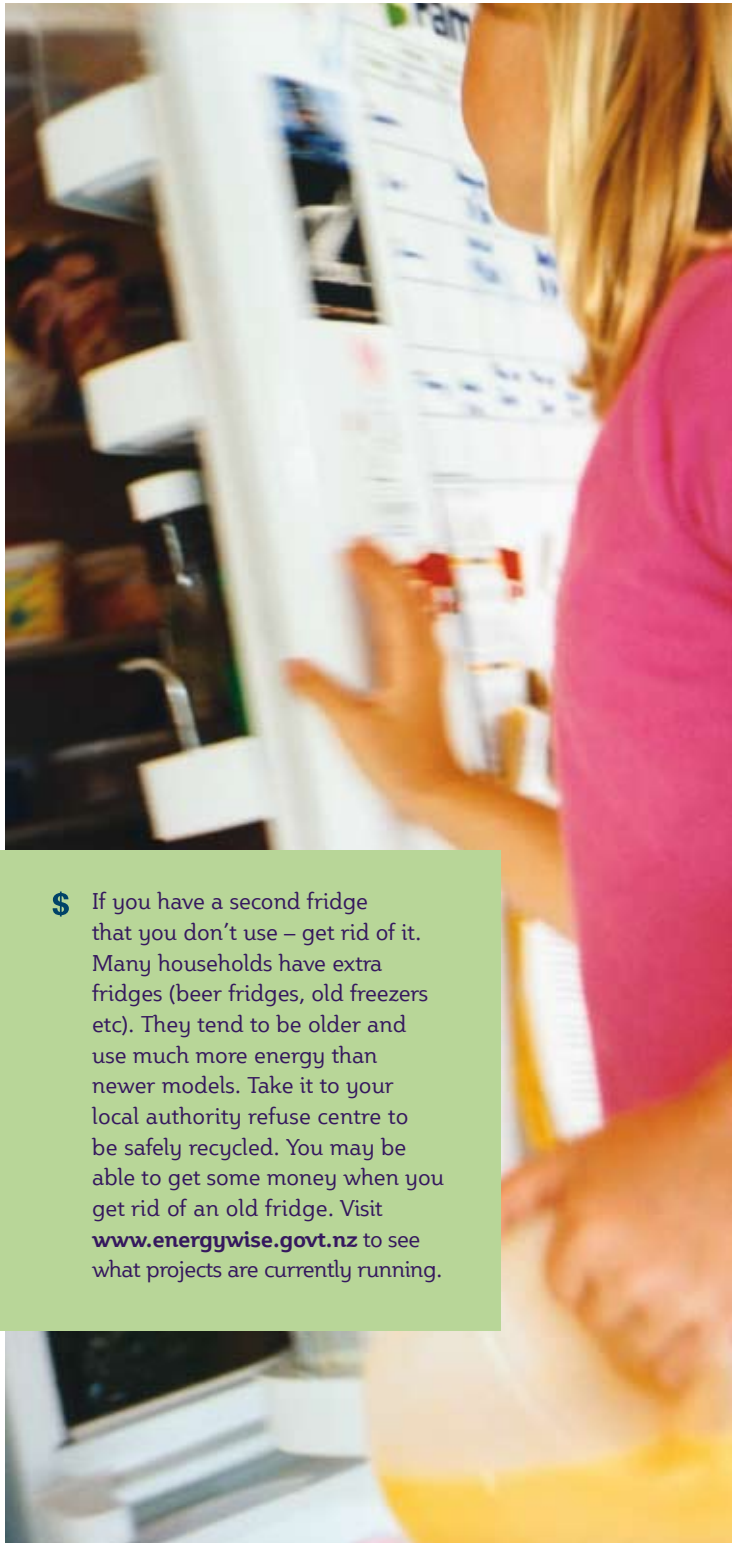
Figures are based on 8 hours of use a day for 6 months of the year.

! No cost \$ Low cost \$\$ Some investment



\$\$ A heat pump is a great way to reduce your energy use and save money on your monthly bill.





\$ If you have a second fridge that you don't use – get rid of it. Many households have extra fridges (beer fridges, old freezers etc). They tend to be older and use much more energy than newer models. Take it to your local authority refuse centre to be safely recycled. You may be able to get some money when you get rid of an old fridge. Visit www.energywise.govt.nz to see what projects are currently running.

Cooking

- ! Where possible, use your microwave instead of the oven or stovetop.
- ! If you're using your oven, cook more than one dish at a time.
- ! Don't open the oven door too often.
- ! Use the correct size pots on the correct size elements.
- ! Use lids – covered pots use less energy.
- ! Boil cooking water in the kettle first rather than boiling it in the pot.
- ! Use cold water when you're filling the kettle, and use only as much as you need.

Dishes

- ! Don't rinse dirty dishes under the hot tap.
- ! It is cheaper to boil the jug to wash a few dishes than it is to fill the sink with water from the hot tap.
- ! Run your dishwasher with full loads only – and use the economy cycle.
- ! If your dishwasher can generate its own hot water then use this feature – it's more efficient than drawing water through cold pipes from the hot water cylinder.

Refrigeration

- ! Let food cool before placing it in the fridge/freezer.
- ! Set the fridge temperature between 2°C and 4°C, and the freezer to -18°C.
- ! Defrost the fridge/freezer twice a year to keep it running efficiently. If it frosts up quickly, check the door seal.
- ! Try not to open and close the fridge door too often.
- ! Don't overstock your fridge/freezer – it's important for air to circulate.

! No cost \$ Low cost \$\$ Some investment

Bathroom

- ! Use your heated towel rail for only a few hours each day (instead of 24 hours a day) and save up to \$100 a year.**
- ! Have showers instead of baths and keep showers short.
- ! Shower with the windows open or turn your extractor fan on to avoid moisture build-up.
- \$ Install a water saving shower head.
- \$ Consider having an electrician install a timer on your heated towel rail.


Laundry – washing

- ! Run your washing machine with full loads or adjust your wash cycle to match the load.
- ! Use cold water cycles for washing and save up to \$50 a year.**
- \$\$ When buying a new washing machine, look for one with an ENERGY STAR® rating. The more stars on the label, the more energy efficient the model.

Laundry – drying

- ! Make sure your clothes are spun well before putting them in the dryer.
- ! Use the low heat setting on your dryer whenever you can: not only does it use less electricity, it's better for your clothes!
- ! Set the timer on your dryer to prevent using it for longer than necessary and don't overfill it.
- ! Make sure your clothes dryer is vented outside (unless it is a condensing dryer).
- ! Clean your dryer's lint filter after each use.
- \$\$ When buying a dryer look for one that senses when your clothes are dry.

! No cost \$ Low cost \$\$ Some investment



! Line dry clothes as much as possible – drying two loads a week on the clothes line instead of in the dryer could save over \$50 a year compared to using a dryer.**

Other appliances

- ! Unplug mobile phone chargers, and turn off computers, monitors and printers when you're not using them – monitors use well over half of the total energy used to run a computer.
- ! Using the remote control to switch off appliances like your TV and video doesn't stop them using power – if there's a red light or timer display showing, it's still drawing electricity. Switch off at the wall. Using the remote only puts appliances in stand-by mode, costing the average home around \$100 per year.**
- ! Use a hot water bottle rather than an electric blanket.
- \$\$ When buying new appliances, choose ENERGY STAR® appliances, or those with high star ratings. The more stars on the label, the more energy efficient the model.

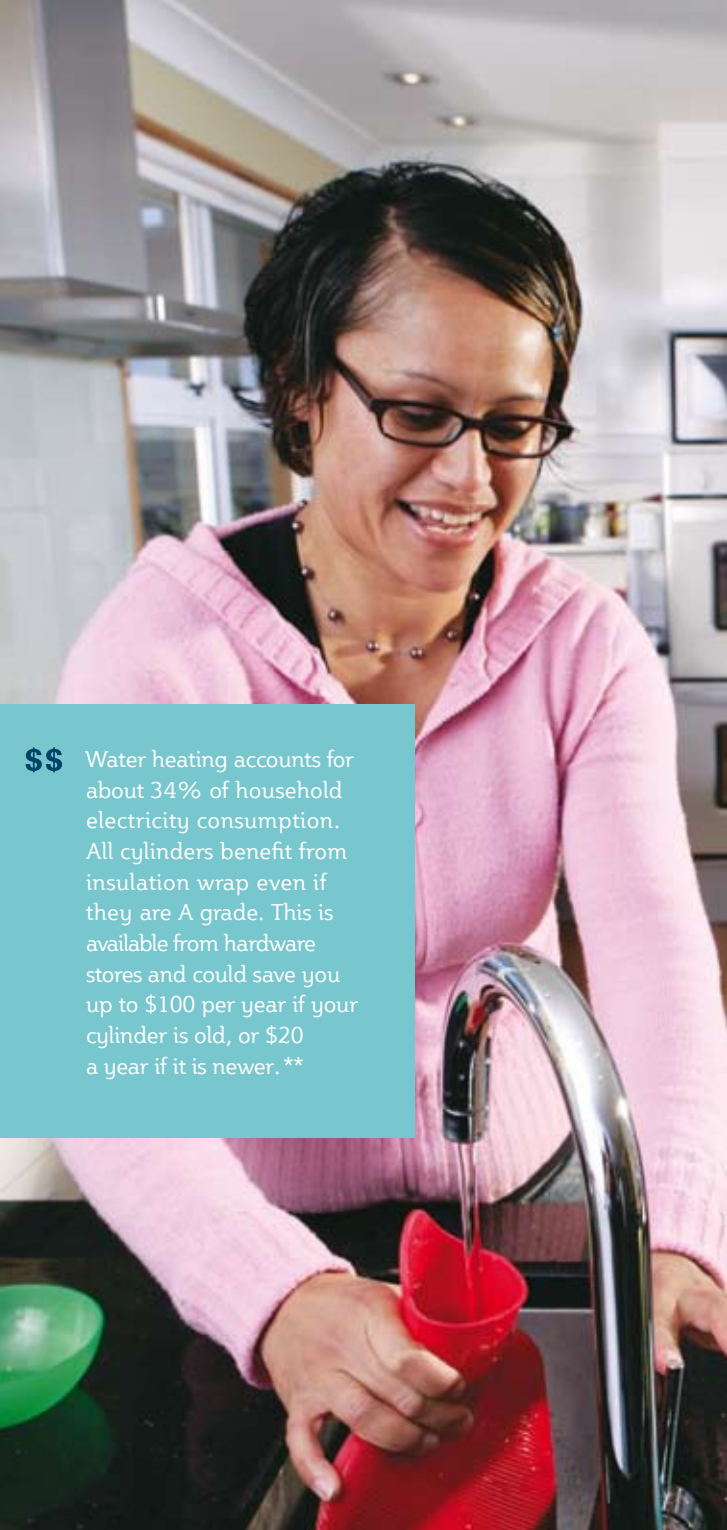
Water heating

- ! If you have an adjustable thermostat, lower the heat of the hot water cylinder to 60°C (55°C at the tap) to avoid burning and to save you money. If your thermostat is not adjustable (i.e. it doesn't have an external knob or you need to remove a cover to access it) you'll need an electrician to do this.
- ! If you're going away for more than two weeks turn off your hot water cylinder.
- ! Fix leaking hot water taps.
- \$\$ Insulate hot water pipes where possible.

Lighting

- ! Turn off lights when you leave a room.
- ! Keep lights and lampshades clean to get maximum light.
- \$\$ Replace the four standard light bulbs you use most frequently with energy efficient (compact fluorescent) light bulbs and you could save around \$65 a year.**
- \$\$ Install motion and daylight sensors on your outside lights.
- \$\$ Paint walls light colours – dark walls mean that rooms need more power to produce the same amount of light.

! No cost \$ Low cost \$\$ Some investment



\$\$ Water heating accounts for about 34% of household electricity consumption. All cylinders benefit from insulation wrap even if they are A grade. This is available from hardware stores and could save you up to \$100 per year if your cylinder is old, or \$20 a year if it is newer.**

If you put the following energy saving measures in place, here's how much you could save each year.

Energy saving measure	Estimated cost [‡] (installed, labour included)	Estimated annual savings**
Replacing your 4 most used light bulbs with compact fluorescent light bulbs	\$6	\$65 - \$75
Hot water cylinder wrap	\$100	\$20 - \$100
Water saving shower head	\$40 - \$300	Up to \$500
Ceiling insulation	\$1,300 - \$1,400	\$180 - \$400
Under floor insulation	\$800 - \$1,000	\$60 - \$300

‡ Approximate costs only. Actual costs will vary depending on the unique characteristics of each house.

** Savings figures provided throughout this brochure are based on a New Zealand average cost of electricity of 20.24 c/kWh. They are estimates that are indicative only.

Use our online calculator – if you'd like to know how much you could save by making energy efficient improvements visit our website at www.meridian.co.nz and use our online calculator.

You'll find out where the energy in your home goes, and how you could make your home more energy efficient.

It's really easy to use – with just a couple of clicks you could be on your way to a drier, cosier home, which will save you energy and money.



Energy efficiency measures should not be taken to the detriment of your health or welfare. We know that it is important to you to have access to power, no matter what your situation.

To help you stay connected please let us know if you are:

Medically dependent

If someone in your home or your life depends on electricity, please tell us urgently so we can make a record of it. We'd also appreciate it if you could tell us if your situation changes.

And because you can lose power for several reasons, such as bad weather, please make sure that you have arrangements in place to manage in case of emergencies.

Suffering from financial hardship

If you are having trouble paying your bill, or think you may have a problem paying your bill in the future, please tell us. We can discuss payment options and budget advice, or put you in contact with someone who may be able to help you such as Work and Income New Zealand (WINZ).

We also want to know if, for reasons of age, health or disability, a power disconnection would cause serious hardship to you or someone in your household.

If you feel any of these reasons apply to you, call our team on **0800 496 496** between 7.30am and 7.30pm, Monday to Friday, excluding public holidays.

WE'RE HERE TO HELP

Meridian is committed to helping you save energy. If you have any questions, or would like more advice, please feel free to call our Customer Service Team.

Phone 0800 496 496

Fax 0800 497 498

**Monday to Friday, excluding public holidays,
between 7.30am and 7.30pm**

Email customerservice@meridianenergy.co.nz

Website www.meridian.co.nz

EECA

The Energy Efficiency and Conservation Authority's (EECA) ENERGYWISE™ programme offers funding and information to help New Zealanders make better energy choices. For more information visit www.energywise.govt.nz

Information contained in this brochure was sourced from EECA and was accurate as at July 2008.

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Energy Efficiency and
Conservation Authority
Te Tari Tiaki Pūngao



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