

Save energy in the workplace

Keeping a tight grip on your energy use is a great way to save your business money and reduce your carbon footprint.

There are loads of ways to save energy at every workplace – and many of these opportunities won't cost a cent, and often it's the cheapest, easiest changes you make that will have the biggest effect on your energy usage.

All it takes is organisation and a little knowledge. Here are just some ideas to get you started.

Use the workforce

1. Appoint a 'Chief Energy Saver'. It doesn't matter who it is, as long as there is someone responsible for leading the charge.
2. Put together a plan and brief everyone on the steps you will take to manage your energy use and the goals you are aiming for. Give people very specific actions they can take to contribute to achieving your plan.
3. Keep up the good work. Use staff meetings or email to remind everyone about energy savings initiatives. If you can, let people know what progress you're making against your savings targets.

Switch off

You can do lots of things around your workplace to save energy with little or no extra effort or cost. The simplest and cheapest way to save energy is to turn off anything that doesn't need to be switched on. Here's a checklist to help you.

Lighting

Lighting can account for up to 50 per cent of the energy bill in an office workplace.

- Turn off lights when they're not in use. Put reminders next to light switches – it's cheaper to turn lights back on than to leave them on.
- Remove lamps or lighting fixtures you no longer need. For example, you might have changed your office layout.

- Clean lamps and light fittings regularly. Dirt and dust accumulation can reduce light output by up to 30 per cent.
- Replace lamps before they lose their effectiveness. The light output of a fluorescent lamp decreases as it ages, yet it uses the same amount of energy.
- Adjust lighting levels to match different needs at different times – such as before and after 'public' hours. It may be possible to reduce the light you need for jobs such as cleaning.
- Use natural lighting wherever possible.

Heating and air-conditioning

Heating and air-conditioning can account for up to 50 per cent of energy used in an office.

- Put heating and air-conditioning on timer controls for when your building is actually occupied.
- Use the recommended heat settings for comfortable working conditions (offices 19°C, workshops 16°C and storage areas 10 –12°C). Ask your team not to fiddle with settings, and check the temperatures regularly. Don't put thermostats near heat sources such as photocopiers, sunlight or heaters.
- Keep windows and exterior doors closed when the air-conditioning or heating is on.
- Turn off all unneeded lighting to reduce the heat load.



- Use window coverings. Close curtains, shades or blinds after dark to retain heat during winter – but be sure to open them on sunny days to take advantage of winter sun. In hot weather, close the coverings to keep the workplace cooler.
- Don't use personal heaters or fans if your office is centrally heated or air-conditioned.
- Clean heating and cooling equipment regularly – a build-up of deposits will reduce energy efficiency.

Computers and office equipment

- Turn off computers when they're not needed. By reducing computer fan noise and the heat they produce, you'll create a more comfortable workplace and save a lot of money over a year. If computers must be left on, turn off the monitor (they consume well over half of the total energy used to run a computer). This will not affect any programmes you have running.
- Use computer networking so your team can share printers.
- Turn off photocopiers when they're not being used. Set the copier to any energy saving settings if possible, and use a timer to shut it off automatically overnight or when it's not used for a long period.

Hot water

- Adjust the thermostat so that hot water is 55°C at the tap.
- Turn the hot water system off if it's not needed for longer than two weeks (such as over the Christmas holiday period).

Office kitchen

- Use the toaster and microwave whenever possible as they cook more quickly and are more efficient than an oven or stovetop.
- Make sure the seals on the oven and fridge/freezer are working properly to avoid hot or cold air leaking.
- Fix any problems with equipment promptly.
- Encourage everyone to shut the fridge and freezer doors immediately after use.
- Defrost your freezer regularly.
- Use the correct temperature settings – freezers are most efficient at -18°C and fridges at between 2°C and 5°C.
- Avoid putting your fridge or freezer next to an oven, stovetop or in direct sunlight, and leave space around them for air to circulate.
- Rinse dishes using cold water.
- Make sure people wait until the dishwasher is full before switching it on – and use the economy cycle.

Energy audit

An energy audit may be a good idea to help you put together an energy management plan. You'll find a list of energy auditors on the Energy Efficiency and Conservation Authority (EECA) website eeeca.govt.nz. Click on the 'Find an Expert' link on the home page, and search using the keywords 'accredited energy auditors'.

With a little investment

- To prevent heat loss from the building:
 - seal any cracks, including around window and doorframes, and block unused openings in the walls or roof
 - fix weather-strips around windows and doors and replace worn-out weather-strips

- fix doors and windows to close tightly and automatic doors to close quickly
- add roof insulation if necessary.
- Install shades and awnings to prevent overheating and glare from sunlight.
- Install extractor fans in the kitchen.
- Use compact fluorescent light bulbs – they use 75 per cent less electricity, and most types last at least eight times longer than standard incandescent bulbs.
- Install occupancy sensors in meeting rooms, bathrooms, storage areas and other low traffic areas – they can save around 25 per cent of energy used for lighting.
- Use timers for outdoor security and parking areas to turn outdoor lights on and off automatically at dusk and dawn. Make a note to adjust the timers for daylight saving.
- When office equipment needs replacing, choose energy efficient models.
- Insulate your heating and air-conditioning pipes and ducts against heat loss and gain.
- Insulate the hot water pipes between the cylinder and taps.
- If you have showers in the workplace, install low-flow shower nozzles.
- Repair any dripping taps – they waste water and energy.

Still need to know more?

Check out our energy saving tips at contactenergy.co.nz

Visit the Energy Efficiency and Conservation Authority (EECA) website eecabusiness.govt.nz. EECA is the government agency responsible for helping people manage their energy use wisely.

Contact the Electrical Contractors Association of New Zealand (ECANZ) on **0800 506 688**, or visit ecanz.org.nz. ECANZ members provide electrical contractor services throughout New Zealand.