

## Generator Safety and Use

MainPower is committed to providing a safe and reliable electricity supply to all customers, however it is impossible to guarantee an uninterrupted supply of power. This fact sheet is designed to inform you about using generators safely in the event of a power outage.

### PORTABLE GENERATOR

From time to time, power may be interrupted due to a number of reasons, for example during or after a wind or snow storm or due to planned maintenance on the network. Portable generators (stand-alone type not requiring an electrician) can be useful to maintain critical 'plug-in' type appliances until power is restored.

Generators may be hazardous if used incorrectly. The following tips - and a careful reading and understanding of the generator's instructions - can help avoid dangerous situations and assist you in ensuring the safe operation of your generator.

### General Safety Tips

- Don't trust your senses to protect you from the carbon monoxide produced by running the generator. When buying a generator, it is recommended to also buy a battery-operated carbon monoxide alarm. This works like a smoke alarm and will sound an alert if carbon monoxide levels become dangerous.
- Think about your neighbours; a running generator can be loud so try to locate it where it will cause least disturbance.

### Tips for Portable Generators

- Don't plug a generator directly into your home's wiring. Power from a generator connected to a home's wiring will 'back feed' into power lines, potentially causing a safety hazard for you, your family, neighbours, and MainPower staff, and causing possible damage to your generator when mains power is restored.
- Appliances can be plugged directly into the generator but always read the manufacturer's instructions carefully.
- Use a heavy-duty extension cord rated for outdoor use.
- Always follow the manufacturer's recommendations for earthing the generator (where specified).
- As petrol and diesel-powered generators produce deadly carbon monoxide fumes, **always run portable generators outside the house** - never inside or in a garage. Keep generators well away from open windows so deadly exhaust does not enter the home.

### What will a small generator run?

- Each generator has a rated wattage which provides a limit on the appliances it will safely power.
- Follow the manufacturer's recommendations for proper use and capacity and don't try to connect lots of appliances at once.
- Rotate the use of larger items. This allows the use of a smaller generator which costs less to buy and is easier to move.
- Overloading the generator can result in damage to appliances it is powering.

### Getting Started

- Never refuel a hot generator or one that is running. Hot engine parts or exhaust can ignite petrol. Always turn the generator off and allow it to cool down before refuelling.
- Turn off all connected appliances before starting your generator.
- Turn on connected appliances one at a time, never exceeding the generator's rated wattage.

### What else do I need to know?

- Make sure your generator is in good condition before storm season arrives.
- Inspect the fuel line for leaks or cracks and replace if necessary, refill the tank with fresh fuel, and run the generator to ensure it is working correctly. Plug in some appliances, such as a hair dryer, to make sure the generator is working properly.
- When storm season is over, empty the fuel from your generator, and properly store it so that it will be ready to go next season when you need it.

#### NEED A GENERATOR?

The following hire companies service the North Canterbury and Kaikoura region.

**Aggreko** - 39 Braeburn Drive, Hornby, Christchurch.  
Phone 03 344 1500.

**Amberley Hire & Landscape Supplies** -  
15 Markham Street, Amberley. Phone 03 314 8665.

**Hirepool** - 1 Ryans Place, Rangiora. Phone 03 313 4518.

#### Kaikoura Hire Company -

170 Beach Road, Kaikoura. Phone 03 319 7183.

#### Rangiora Hire -

19 Southbrook Road, Rangiora. Phone 03 313 7080.

**Smiths Hire** - 1190 Main North Road, Belfast, Christchurch.  
Phone 03 323 8029.

#### Southbrook Hire -

12 Newnham Street, Rangiora. Phone 03 313 7336.

## STAND-BY GENERATORS

Stand-by generators are designed to provide large amounts of power and are typically used in a business or commercial operation. An electrician is required to connect a stand-by generator directly to the businesses electrical system.

### Remember

- A licensed electrician must connect the generator and alter the wiring as necessary.
- Installations have either an automatic or manual changeover switch that disconnects the incoming mains and couples the generator to the installation wiring. This changeover must occur to stop electricity feeding back into MainPower lines and putting the lives of line workers at risk.
- Connected loads must not exceed the maximum rating of the generator. To limit the load to the maximum load rating of the generator, the installation wiring is split into essential and non-essential sections so that only the essential loads are supplied by the generator.
- To make sure that you are not billed for using the generator, the connection must be on the installation side of the energy meter. Generators designed to start automatically in the event of a power cut should be test-run on load at periodic intervals. The best way to ensure that a generator will start and changeover if the mains fails is to turn off the building main switch. Generators should be regularly serviced by a specialist company.

## HOW MAINPOWER CAN HELP

### Generator Advice and Connection Service

MainPower can assist customers affected by an outage by:

- Estimating the required size of the generator
- Connecting the generator to the supply
- Disconnecting the generator from the supply
- Limited pickup and delivery of a hired generator

For assistance:

03 311 8314 (8am to 5pm, Monday to Friday)

0508 60 70 80 (24 hour fault line)



### Contact MainPower

To report a fault: 0508 60 70 80

For electrical emergencies: 0508 60 70 80

For general enquiries:

[www.mainpower.co.nz](http://www.mainpower.co.nz)

[info@mainpower.co.nz](mailto:info@mainpower.co.nz)

03 311 8300 (8am to 5pm, Monday to Friday)

Disclaimer: This fact sheet is not an exhaustive list of all safety matters that need to be considered. Whilst care is taken in the preparation of this material, MainPower does not guarantee the accuracy and completeness of the information.