

Some Prince Edward Islanders have purchased or are thinking about purchasing stand-by generators. Maritime Electric receives many requests for information about stand-by generators.

This brochure has been prepared to answer some of these safety concerns and answer commonly asked questions about generators.

When properly installed and operated, a stand-by generator can provide an adequate supply of short-term electricity. If not properly installed and operated, stand-by generators pose a potential safety hazard to both customers and lineworkers.

Can I install a stand-by generator myself?

No! The Prince Edward Island Electrical Inspection Act requires that a licensed electrician install stand-by generators. Electrical codes require that a stand-by generator connected to your household electrical system must be controlled by a transfer switch. A licensed electrician must do this for you to ensure it is properly installed. A wiring permit is required to do this work. This switch ensures your power is only delivered from either the utility supply or from the generator – NEVER FROM BOTH AT THE SAME TIME.

An approved installation by a qualified electrician will prevent your generator from becoming a fire hazard when the utility power is restored, and it also prevents Maritime Electric lineworkers from being electrocuted when service is restored to your home.

What other safety issues should I keep in mind?

Never operate a stand-by generator in your house, basement or garage. The exhaust fumes are deadly. Always run a generator outside.

Do not cover an operating generator. The internal combustion engine of a generator requires unrestricted air flow around it to properly stay cool. If a generator overheats, it will fail.

Never expose a generator to rain or moisture. Like all electrical devices, it must remain dry at all times.

Never fuel a generator while it is running. This could start a fire.
Keep children away from generators at all times.

Many engine parts are hot during operation. Severe burns may result if touched.

How much fuel could I expect to burn?

An efficient 3,500-watt gasoline generator typically consumes 2.2 litres of fuel per hour at full load. That means you would need about 20 litres of fuel to operate a generator for 9 hours. Remember, when there is an electricity service interruption, gas pumps may not be working as they require electricity to operate. A generator operating only a few hours uses a considerable amount of fuel.

What size generator do I need?

The size of the stand-by generator you need depends on your energy requirements. Most emergency power needs can be satisfied with a stand-by generator of 2,500 to 5,000 watts.

A licensed electrician will be able to answer specific questions on which generator is best suited for your needs.



How much power do different appliances require?

The following chart shows the power requirements of typical household appliances "Start-up" is the momentary large wattage required to engage an electric motor. "Running Watts" is the normal operating level.

Appliance	Start-Up Watts	Running Watts
Sump Pump	1,400	750
Washing Machine	2,000	500
Furnace Blower	1,400	350
Well Pump	2,000	750
Refrigerator	2,500	500
Oil Burner	3,100	260
TV	-	200
Microwave	-	1,000
VCR	-	40
Radio	-	30
2-Slice Toaster	-	1,150
Space Heater (portable)	-	1,500
Water Heater (40 gallon)	-	3,000

Where can I find out more about stand-by generators?

For more information on the proper installation of stand-by generators, including the proper size and type of generator you need, contact your local electrical inspector or licensed electrical contractor.

Contact Us

If you are interested in having a Maritime Electric employee deliver an Electrical Safety in the Workplace presentation please contact us.

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A Guide to Stand-by Generators

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