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Self-Help Advice

Winter Power Failures



Canada

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Winter power failures



MOST CANADIAN HOME-HEATING SYSTEMS ARE DEPENDENT UPON ELECTRIC POWER. POWER SUPPLY INTERRUPTIONS CAN LAST FROM A FEW HOURS TO SEVERAL DAYS AND ARE OFTEN CAUSED BY FREEZING RAIN, SLEET STORMS AND/OR HIGH WINDS WHICH DAMAGE POWER LINES AND EQUIPMENT. AN EXTENDED POWER FAILURE DURING WINTER MONTHS, AND SUBSEQUENT LOSS OF HEATING, CAN RESULT IN COLD, DAMP HOMES, SEVERE LIVING CONDITIONS AND DAMAGE TO WALLS, FLOORS AND PLUMBING.

Following these simple suggestions can reduce the harmful effects of power and heating failure in sub-zero weather.

PRECAUTIONS TO TAKE

- You can install a non-electric standby stove or heater. Choose heating units that are not dependent on an electric motor, electric fan, or some other electrical



device to function. It is also important to adequately vent the stove or heater with the type of chimney flue specified for it. Never connect two heating units to the same chimney flue at the same time. If it is necessary to vent the standby heater to the existing chimney flue used by the furnace, first disconnect the furnace from it. Use only fuel-burning heaters certified by the Canadian Standards Association (CSA) or Canadian Gas Association.

- If you have a wood-burning fireplace, clean the flue every fall in preparation for its use for home heating (i.e. sustained use at high temperatures). The creosote in a flue can be ignited by sustained high temperatures, and develop into a chimney fire.
- If you have a fireplace, keep a good supply of fuel on hand.
- If the standby heating unit will use the normal house oil or gas supply, have it connected with shut-off valves by a competent technician.
- Before considering the use of an emergency generator during a power failure, check with furnace, appliance and lighting fixture dealers or manufacturers regarding power requirements and proper operating procedures.
- If someone in the home relies on electrically powered life-sustaining equipment, register with your electric supply authority and your community emergency program.
- Keep an emergency survival kit – containing provisions for at least three days – stored in a handy place. The kit should include:
 - non-perishable food and water;
 - emergency lighting such as flashlights with spare batteries, candles, matches/lighter, or coal-oil lanterns and fuel;
 - fuel stove and fuel (follow manufacturer's instructions);
 - blankets and warm clothing;
 - a battery-powered radio and spare batteries.
- You should also prepare a portable emergency survival kit in the event that you have to evacuate your home.



If there is a power failure

CHECK WHETHER THE POWER FAILURE IS LIMITED TO YOUR HOME. IF YOUR NEIGHBOURS' POWER IS STILL ON, CHECK YOUR OWN CIRCUIT-BREAKER PANEL OR FUSE BOX. IF THE PROBLEM IS NOT A BREAKER OR A FUSE, CHECK THE SERVICE WIRES LEADING TO THE HOUSE. IF THEY ARE OBVIOUSLY DAMAGED OR ON THE GROUND, STAY WELL BACK AND NOTIFY YOUR ELECTRIC SUPPLY AUTHORITY (KEEP THE NUMBER ALONG WITH OTHER EMERGENCY NUMBERS NEAR YOUR TELEPHONE).

If your neighbours' power is also out, notify your electric supply authority.

Turn off all tools, appliances and electronic equipment, and turn the thermostat(s) for the home heating system down to minimum, for the following reasons:

- Tools and appliances left on will start up automatically upon restoration of service; turning them off will prevent injury, damage or fire.
- If a power surge follows start-up, it could damage sensitive electronic equipment such as computers, microwaves and VCRs. (Protecting these appliances with a surge-proof powerbar is a smart and inexpensive precaution.)
- Power can be restored more easily when there is not a heavy load on the electrical system.



Leave one light switch on, so you know when power is restored.

Don't open your freezer or fridge unless it is absolutely necessary. A full freezer will keep food frozen for 24 to 36 hours if the door remains closed.

Don't use charcoal or gas barbecues, camping heating equipment, or home generators indoors. They give off carbon monoxide. Because you can't smell or see it, carbon monoxide can cause health problems and even kill you before you know it's there.



Use proper candle holders. Never leave lit candles unattended.

Use your battery-powered radio for local information.

Remember that even in very cold weather, a house with closed doors and windows will not become too cold for comfort for several hours.



If you have a backup heating unit, turn it on before the house gets too cold. If the unit must be vented to the same chimney flue as the furnace, switch the furnace off before disconnecting the furnace flue. (See advice earlier in the brochure on the installation of backup heating units.)

Home generators are handy for backup electricity in case of an outage, but there are hazards to keep in mind. Serious accidents can result when a home generator is connected to an existing electrical circuit. If the electricity produced by the home generator follows the electrical lines back to the transformer, and the current is transformed to a higher voltage, the lives of any utility employees working on the lines nearby are endangered. Anyone touching equipment powered by the generator is also in danger. Also, when the main electric power comes back on, a generator connected to the existing electrical circuit will result in an explosion and fire.

Direct installation of a generator to an existing electrical system should only be done by a qualified technician and approved by your electric supply authority.

To operate a generator safely

- Follow the manufacturer's instructions.
- Always ensure that the generator operates outdoors in well-ventilated conditions, well away from doors or windows, to prevent exhaust gases from entering the house.
- Connect lights and appliances directly to the generator. If extension cords must be used, ensure they are properly rated, CSA-approved cords.



If you have to evacuate

A HOUSE CAN BE DAMAGED BY LOW TEMPERATURES, BUT THE MAJOR THREAT IS TO THE PLUMBING SYSTEM. IF A STANDBY HEATING SYSTEM IS USED, CHECK TO SEE THAT NO PART OF THE PLUMBING SYSTEM CAN FREEZE.

If the house must be evacuated, protect it by taking the following precautions:

- Turn off the main breaker or switch of the circuit-breaker panel or power-supply box.
- Turn off the water main where it enters the house. Protect the valve, inlet pipe, and meter or pump with blankets or insulation material.
- Drain the water from your plumbing system. Starting at the top of the house, open all taps, and flush toilets several times. Go to the basement and open the drain valve. Drain your hot water tank by attaching a hose to the tank drain valve and running it to the basement floor drain. **(If you drain a gas-fired water tank, the pilot light should be turned out – the local gas supplier should be called to re-light it!)**
- Unhook washing-machine hoses and drain.
- Do not worry about small amounts of water trapped in horizontal pipes. Add a small amount of glycol or antifreeze to water left in the toilet bowl, and the sink and bathtub traps.



- If your house is protected from groundwater by a sump pump, clear valuables from the basement floor in case of flooding.
- Listen to a battery-operated or car radio for more detailed local advice and instructions.



DOWNED POWER LINE

Call your electric supply authority with the exact location of the downed line. Keep back a minimum of

10 metres (33 feet) from wires or anything in contact with them, and warn others of the danger. Always assume that the lines are live. It is difficult to distinguish between power lines and other utility lines (for example, telephone or cable lines) and they also carry sufficient power to cause harm. Therefore, treat all lines as a danger.

AFTER THE POWER RETURNS

- If the main electric switch was turned off, check to ensure appliances, electric heaters, TVs, microwave ovens, computers, etc. are unplugged to prevent damage from a power surge when the power is restored.
- Do not enter a flooded basement unless you are sure the power is disconnected.
- Do not use flooded appliances, electrical outlets, switch boxes or fuse-breaker panels until they have been checked and cleaned by a qualified technician.



- Replace the furnace flue (if removed) and turn off the fuel to the standby heating unit.
- Switch on the main electric switch.
- Give the electrical system a chance to stabilize before reconnecting tools and appliances. Turn the heating-system thermostats up first, followed in a couple of minutes by reconnection of the fridge and freezer. Wait 10 to 15 minutes before reconnecting all other tools and appliances.



- Close the drain valve in the basement.
- Turn on the water supply. Close lowest valves/taps first and allow air to escape from upper taps.
- Make sure that the hot water heater is filled before turning on the power to it.
- Rinse out dishwasher and washing machine if necessary.
- Warm house slightly above normal temperature for a few hours to allow it to dry thoroughly.
- Check food supplies in refrigerators, freezers and cupboards for signs of spoilage. If a freezer door has been kept closed, food should stay frozen 24 to 36 hours, depending on the temperature. When food begins to defrost (usually after two days), it should be cooked; otherwise it should be destroyed in accordance with instructions from your local public health authorities.
- As a general precaution, keep a bag of ice cubes in the freezer. If you return home after a period of absence and the ice has melted and refrozen, there is a good chance that the food is spoiled.
- Restock your emergency survival kit so the supplies will be there when needed again.



Additional information

For additional information on electrical safety, electricity use or actions to take following a power outage, contact your electric supply authority. For additional information on reoccupying your house after a prolonged winter power outage, contact:

Canadian Housing Information Centre Canada Mortgage and Housing Corporation

700 Montreal Road
Ottawa, Canada K1A 0P7
Telephone: (613) 748-2367
Toll-free: 1-800-668-2642
Fax: 1-800-245-9274
E-mail: chic@cmhc-schl.gc.ca
Internet: www.cmhc-schl.gc.ca

For general information or to order our self-help brochures, please contact:

Public Safety and Emergency Preparedness Canada

Communications Division
340 Laurier Ave. West, Ottawa, Canada K1A 0P8
Telephone: (613) 991-2800
Toll-free: 1-800-830-3118
Fax: (613) 998-9589
E-mail: communications@psepc.gc.ca
Internet: www.psepc.gc.ca

Please contact your provincial/territorial emergency management organization (EMO) for regional or local information on emergency preparedness.

Newfoundland and Labrador

Emergency Measures Organization
Telephone: (709) 729-3703
Fax: (709) 729-3857

Prince Edward Island

Emergency Measures Organization
Telephone: (902) 888-8050
Fax: (902) 888-8054

Nova Scotia

Emergency Measures Organization
Telephone: (902) 424-5620
Fax: (902) 424-5376

New Brunswick

Emergency Measures Organization
Telephone: (506) 453-2133
Toll-free: (800) 561-4034
Fax: (506) 453-5513

Québec

Direction générale de la sécurité civile et
de la sécurité incendie

Telephone: (418) 646-7950
Fax: (418) 646-5427
Toll-free Emergency Number: 1-866-776-8345
Emergency Number: (418) 643-3256

Or one of these regional offices:

- Bas-Saint-Laurent – Gaspésie –
Îles-de-la-Madeleine: (418) 727-3589
- Saguenay – Lac-St-Jean – Côte-Nord: (418) 695-7872
- Capitale Nationale – Chaudière –
Appalaches – Nunavik: (418) 643-3244
- Mauricie – Centre-du-Québec: (819) 371-6703
- Montréal – Laval – Laurentides –
Lanaudière: (514) 873-1300
- Montérégie – Estrie: (514) 873-1324
- Outaouais – Abitibi – Témiscamingue –
Nord-du-Québec: (819) 772-3737

Ontario

Emergency Management Ontario

Telephone: (416) 212-3468

Fax: (416) 212-3498

Manitoba

Emergency Measures Organization

Telephone: (204) 945-4772

Toll-free: 1-888-826-8298

Fax: (204) 945-4620

Saskatchewan

Saskatchewan Emergency Planning

Telephone: (306) 787-9563

Fax: (306) 787-1694

Alberta

Emergency Management Alberta

Telephone: (780) 422-9000

Toll-free in Alberta, dial 310-0000-780-422-9000

Fax: (780) 422-1549



British Columbia

Provincial Emergency Program (PEP)

Telephone: (250) 952-4913

Fax: (250) 952-4888

Northwest Territories

Emergency Measures Organization

Telephone: (867) 873-7785

Fax: (867) 873-8193

Yukon

Emergency Measures Organization

Telephone: (867) 667-5220

Fax: (867) 393-6266

Nunavut

Nunavut Emergency Management

Telephone: (867) 975-5300

Fax: (867) 979-4221

Towards a safer, more secure Canada

Public Safety and Emergency Preparedness Canada (PSEPC) leads the Government of Canada's emergency and business continuity planning.

Through its programs and information products, PSEPC enhances the capacity of individuals, communities, businesses and governments to manage risks to their physical and cyber environments.

www.safeguard.ca

SAFE GUARD

Safeguard is a national partnership that helps increase the public awareness of emergency preparedness in Canada.

Other titles in this self-help series include:

- Be Prepared, Not Scared
- Floods – What to do before and after
- Prepared for the Woods
- Prepare to Survive a Major Earthquake
- Preparing for the Unexpected
- Severe Storms
- Storm Surges
- Winter Driving – You, your car and winter storms