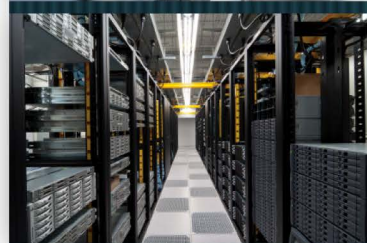


# Your Energy Lifeline

A guide to preparing and protecting yourself, your family, and your community during energy emergencies: long-term disruption of electricity, natural gas and petroleum.



# Energy Emergency Prevention, Preparedness, Mitigation, Response and Recovery

The City of Davenport and Scott County were one of forty-three local government agencies to be awarded grant funds by the Department of Energy to develop a Local Energy Assurance Plan. The objective of having an Energy Assurance Plan is to prepare for and mitigate, to the extent possible, the impacts of short and long-term disruption of electricity, natural gas or petroleum resources.

## WHY HAVE AN ENERGY ASSURANCE PLAN?

Energy resources such as electricity, natural gas and petroleum are an important part of daily life for everyone in our Community. Energy disruptions can also have life safety effects. While short-term disruptions will present mostly inconvenient conditions, long-term disruptions can have widespread consequences and pose a variety of challenges to timely response and recovery efforts and continuity of essential services.

## WHAT ARE THE OUTCOMES OF DEVELOPING AN ENERGY ASSURANCE PLAN?

Through development of the plan, we were able to:

- Develop a better understanding of the impacts of short and long-term energy disruptions on critical municipal, public and private infrastructure and services, as well as, the Community at-large;
- Identify gaps and plan for mitigation measures that will improve our ability to overcome the effects, challenges and hazards presented by an energy emergency;

- Strengthen relationships with public and private stakeholders, resulting in a better understanding of everyone’s capabilities and steps that can be taken to improve overall Community preparedness to energy emergencies.

## ABOUT THIS GUIDE

The City, County, local utility companies, hospitals, assisted living centers, as well as other private stakeholders, have plans in place to promote continuity of operations for essential services. The duration of an energy disruption, environmental conditions and cascading effects of disruption will determine appropriate emergency response activities for public and private sectors.

You are an important part of response and recovery. This guide was created to educate our Community about ways to stay informed, be prepared, lower your risks, and further measures you can take to protect yourself, your family and our Community.

**Our Energy Assurance Plan is a living document. For the safety and health of our Community we will continuously work to improve our plan based on lessons learned and through incorporation of technologies that reduce our energy dependencies.**

The City of Davenport and Scott County are pleased to have been awarded grant funds that allowed us to develop an Energy Assurance Plan and improve the services we provide to our Community.



# Be Responsible

Advance warning of conditions that might result in energy emergencies, or long-term energy disruptions, often occurs, but some energy emergencies may hit with little or no warning. It is the responsibility of everyone to be prepared for severe weather and other emergencies.

## KNOW WHO TO CALL AND WHEN

- Power Outages
- Natural Gas Leaks
- Propane Gas Leaks
- Downed Trees, Traffic Lights & Other Hazards
- Warning Sirens
- Stay Connected and Informed

## UNDERSTAND HOW TO PROTECT YOURSELF AND YOUR FAMILY

- Make a Plan
- Respond Appropriately to Instructions and Events
- Keep an Emergency Supply Kit
- Special Needs
- Prescriptions and Life Safety Equipment
- Phone and Cell Phone Communication
- Loss of Power May Mean Unsafe Food
- Water Supply
- Caring for Animals
- Staying Cool During an Energy Outage
- Staying Warm During an Energy Outage

## KNOW THE HAZARDS

- Backup Generators
- Fireplaces and Stoves
- Space Heaters
- Natural Gas
- Propane

## BE IN THE KNOW

- Fuel Emergencies
- Flood, Sewer Back-up and Sump Pump Failure
- Potential Causes of Energy Emergencies

# Power Outages

■ If you see a downed power line, assume it is an energized electric line and don't touch it. Touching an energized power line can be fatal. Call your local electric utility to report downed power lines.

■ If you lose power, check your fuse or circuit breakers first. Replace or reset if this is the cause of the outage. If this is not the cause of the outage contact your local electric utility to report the power loss. Never assume someone else has reported a power outage. Your information helps the utility company's electric outage management system pinpoint the source of an outage and speed the restoration process.

■ Survey your surroundings and use caution when stepping outside your home during a power outage; a downed power line may be just outside your door or may be hidden by brush or debris. Survey your surroundings and use extra caution picking up metal debris, such as awnings or metal roofing, which may be in contact with a hidden, downed power line.

■ If a power line comes down on a vehicle while someone is inside, that person should stay in the vehicle until power crews arrive and make the situation safe.



## TO REPORT DOWNED POWER LINES AND POWER OUTAGES, CALL YOUR SERVICE PROVIDER:

Mid-American Energy	800.799.4443
Alliant Energy	800.822.4348
Durant Municipal Electric Plant	563.785.6213
Eastern Iowa Rural Electric Cooperative	800.728.1242
Eldridge Municipal Utility	563.285.4841





# Natural Gas Leaks

- Always call before you dig. Natural gas lines can be located just inches below the surface. Even seemingly innocent digging to plant a tree can result in disaster if you hit a natural gas line. Hitting a gas line can result in gas leaks, explosion and fire. The number to call to locate underground utilities including electric and natural gas lines is Iowa One Call 1-800-292-8989 or dial 811.
- If you smell gas or think you hear a blowing or hissing sound, leave the premises immediately, without touching anything that could spark. Natural gas leaks can result in explosion and fire when an ignition source is present.
- From outside the structure, call your local utility and/or 911 to report a suspected gas leak.
- Do not re-enter the structure until you have been advised that it is safe.

**TO REPORT A POSSIBLE GAS LEAK, CALL 911 AND/OR YOUR SERVICE PROVIDER:**

**911**

**Mid-American Energy    800.595.5325**

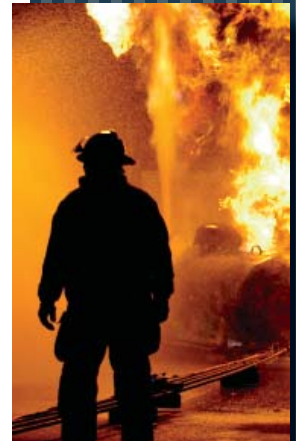
**Alliant Energy            800.862.6263**



# Propane Gas Leaks

- Know the layout and location of your propane lines to avoid damaging and possibly causing hazardous leaks. Iowa One Call may be a resource if these lines are registered in their system; Iowa One Call 1-800-292-8989 or dial 811.
- If you smell gas or think you hear a blowing or hissing sound, leave the premises immediately, without touching anything that could spark. Propane gas leaks can result in explosion and fire when an ignition source is present.
- From outside the home, call 911 to report a suspected gas leak.
- Have your range serviced by a professional if the flames are not blue. Yellow flames indicate blockage of air inlets or an adjustment may need to be made to the burner. Do not line your range with tin foil; it constricts air circulation. Contact your propane dealer for resources and service.
- Know where your propane shut-off valve is located to aid emergency responders.

**TO REPORT A POSSIBLE PROPANE LEAK, CALL 911**



# Other Infrastructure

We encourage the community to use resources that help to stay connected and informed, however, there are times when picking up the phone during an emergency is necessary to: report hazardous conditions, address immediate personal life-safety issues and to access information.

AMBULANCE	FIRE	LAW ENFORCEMENT
911		
DOWNED TREES OBSTRUCTING TRAFFIC		
Davenport 563.326.7923	Bettendorf 563.344.4015	Scott County 563.484.3000
REPORT AN OUTAGE AND DOWNED POWER LINES		
Mid-American Energy 800-799-4443	Durant Municipal Electric Plant 563.785.6213	
Alliant Energy 800.822.4348	Eastern Iowa Rural Electric Cooperative 319.443-4343	
	Eldridge Municipal Utility 563.285.4841	
REPORT A GAS LEAK		
911 or your local service provider		
BROKEN WATER MAIN		
Iowa American Water Company 866.641.2108	Scott County 563.484.3000	
BROKEN WATER PIPES INSIDE YOUR HOME		
Call local plumbing professional		
SANITARY SEWER BACKUP INSIDE YOUR HOME		
Call local plumbing professional		
SANITARY SEWER BACKUP DUE TO SEWER MAIN		
Davenport 563.326.7923	Bettendorf 563.344.4015	
STREET FLOODING		
Davenport 563.326.7923	Bettendorf 563.344.4015	Scott County 563.484.3000
SHELTERS		
American Red Cross of the Quad City Area 309.743.2166 Communicated through local media		
TRAFFIC SIGNAL OUT		
Davenport 563.326.7923	Bettendorf 563.344.4015	
SCHOOL CLOSINGS		
Check with your local school district. Many offer notification services for school closings. Check local televised and web media outlets.		

# Warning Sirens

Scott County has 27 Outdoor Warning Sirens that may be activated in the event of severe weather or other potentially life threatening event. Outdoor Warning Sirens are intended to warn people outdoors of expected hazardous conditions. Upon hearing an outdoor warning siren it is important that you immediately move indoors and refer to local broadcast media (radio, TV, etc.) or a NOAA weather radio for additional information on how to respond to expected conditions.

The Quad Cities Outdoor Warning Sirens will be activated in the event, that a:

- Tornado Warning is issued by the National Weather Service and/or a tornado or funnel cloud is present.
- Severe Thunderstorm Warning is reported by a trained spotter or issued by the National Weather Service when, winds are known or expected to be 70 mph or greater, and/or golf ball sized hail or larger is known or expected to occur.

- Large-scale potentially life threatening event has or is expected to occur.

Outdoor Warning Sirens will not be activated for lightning or flooding.

Sirens are sounded every 15 minutes during an event. Sirens will cease sounding once the National Weather Services states the warning has expired.

Outdoor Warning Sirens are tested the first Tuesday of each month at 10:00 a.m. unless we are experiencing severe weather. If threatening storms are occurring, no test will be conducted that month.



# Stay Connected and Informed

Government, Utilities, the Health Care Industry and the National Weather Service transmit alerts, warnings and disaster response and recovery messages to the public in a variety of ways to encourage understanding, awareness and positive actions that help to protect the community in advance of, during and after hazardous conditions and emergency incidents.

These messages are often coordinated through interagency cooperation and established procedures that help us assure our community receives timely, accurate and consistent messaging.

To stay aware of predicted and current hazardous conditions, STAY CONNECTED. The following resources are available to help keep you connected and informed.

## WEBSITE, FACEBOOK AND TWITTER

- **City of Davenport** - [www.cityofdavenportiowa.com](http://www.cityofdavenportiowa.com), [www.facebook.com/cityofdavenportiowa](http://www.facebook.com/cityofdavenportiowa), <http://twitter.com/cityofdavenport>
- **Scott County** - [www.scottcountyiowa.com](http://www.scottcountyiowa.com), [www.facebook.com/scottcountyiowa](http://www.facebook.com/scottcountyiowa), <http://twitter.com/ScottCountyIowa>
- **MidAmerican Energy Company** - [www.midamericanenergy.com](http://www.midamericanenergy.com), <http://www.facebook.com/pages/MidAmerican-Energy-Company/254494964563629>, [http://twitter.com/MidAm\\_EnergyCo](http://twitter.com/MidAm_EnergyCo)
- **Alliant Energy** - [www.alliantenergy.com](http://www.alliantenergy.com), <http://twitter.com/alliantenergy>
- **Eastern Iowa Rural Electric Cooperative** - [www.easterniowa.com](http://www.easterniowa.com)
- **American Red Cross of the Quad Cities** - [www.qcredcross.org](http://www.qcredcross.org), <http://twitter.com/qcredcross>, <http://www.facebook.com/qcredcross>

## OTHER MEDIA

- Local newspaper media; many newspaper media outlets offer web, twitter and other notification services
- Local broadcast news media; many broadcast news media outlets offer web, twitter and other notification services.
- Local radio stations; many radio broadcast organizations offer web, twitter and other notification services. WOC 1420 AM and KUUL 101.3 FM are official local radio stations for broadcasting weather advisories.
- Emergency Alert System messages.
- Weather Radio (battery powered) is good to have on hand to help keep you connected

## OTHER SERVICES

- In Davenport, you can sign-up to receive landline phone, cell phone, e-mail and cell phone text messaging by signing up for the City of Davenport's Davenport Direct. Sign-up for the system by calling 563.326.7923 or by visiting [www.cityofdavenportiowa.com/davenportdirect](http://www.cityofdavenportiowa.com/davenportdirect) and look for the sign-up link.
- In Eldridge, you can sign-up to receive CodeRed alerts by visiting <http://www.cityofeldridgeia.org>.
- The American Red Cross also offers a first aid app for smart phones. The app is free and provides information on emergency response and preparedness. You can download the app at the Apple App Store or via the Google Play Store for Android platforms.

Under certain emergency conditions our agencies may also employ other communication tools to protect the community, including sounding sirens, implementing door-to-door communication and public postings.

You can protect yourself and the community by staying informed. Please also consider helping individuals with limited access to communication tools to stay informed by checking in on them during pending and active emergency events.



## Make a Plan

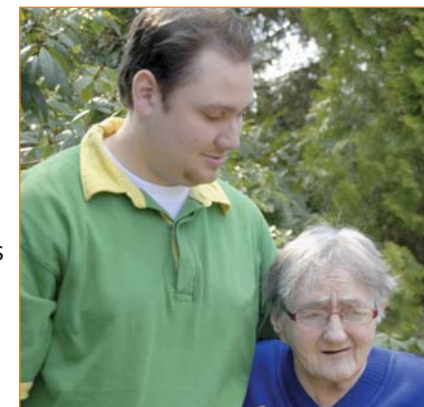
Disasters can happen at any time, they may force you to leave or live without basic services such as gas, water, electricity and telephone. There are a number of good resources out there that can help you develop an Emergency Action Plan that will help you endure an emergency.

Following are some fundamental elements of creating an Emergency Action Plan. You might also consider visiting [www.ready.gov](http://www.ready.gov), [www.safeguardiowa.org](http://www.safeguardiowa.org), or [www.idph.state.ia.us](http://www.idph.state.ia.us) for additional preparedness resources and step-by-step instruction.

- Have an evacuation route and identify places to meet after evacuation.
- Have a family communication plan. Know and maintain contact information for your family and friends network; this network might be useful to communicate with family members when they can't be reached directly.
- Maintain a written, and when possible electronic, listing of family member's: names, dates of birth, social security numbers and other important medical information, such as doctors and pharmacy phone numbers.
- Maintain property, health and life insurance. Review existing policies periodically to ensure an understanding of your coverage.
- Store important documents such as insurance policies, deeds, property records, and other important papers in a safe place, such as a safety deposit box away from your home. Make copies of important documents for your emergency supply kit.
- Make a record of your personal property, for insurance purposes. Take photos or a video of the interior and exterior of your home. Include personal belongings in your inventory.
- Consider saving money in an emergency savings account that could be used in any crisis. It is advisable to keep a small amount of cash or traveler's checks at home in a safe place where you can quickly access them in case of evacuation.
- Have a plan for prescriptions and individuals with special needs.

## Respond Appropriately to Instructions and Events

- No matter what the emergency, stay calm. Losing control of your thoughts and emotions only leads to greater confusion and is not productive for you or those around you.
- When a traffic light is out or flashing, State law requires everyone to stop at the intersection. This is for your own safety and the safety of others. Move through the intersection with caution as if you would any other four-way stop; each vehicle should proceed through the intersection based on who arrived first, or when multiple vehicles arrive at the same time, the vehicle on the right proceeds first.
- Listen to instruction, understand how you might be impacted and know what your needs are. Avoid overreacting to the event such as unnecessarily stock piling food or fuel. Mass chaos can result in community unrest and can reduce the availability of supplies for others facing the same emergency.
- Unless there is an emergency, do not call 9-1-1. That number should only be used if there is an emergency, or if someone is injured or in danger. By staying informed and connected you will find the answers to many questions you might have. In addition, clogging emergency response lines can overload communications systems and delay response to those affected by a life safety emergency.
- If conditions make it perilous to go out, avoid doing so. If going to the doctor can be delayed, reschedule your appointment.
- Check on neighbors, especially those with special needs. Help them to take appropriate actions that will help protect their safety.
- Never put yourself or others at risk. Do not attempt to rescue others or your pet(s) if your life or health or that of others may be placed in danger.





# Emergency Supply Kit

When a disaster strikes, will your family be prepared? Having a well stocked emergency supply kit is essential in survival of the unexpected. Be prepared to survive on your own for 72 hours. You can create your own kit by gathering or purchasing the following items. *Courtesy Safeguard Iowa, 20 Weeks to Preparedness. You may also visit [www.safeguardiowa.org](http://www.safeguardiowa.org) for more information.*

## FOOD/WATER

- Water (1 gallon per person per day)
- Protein Bars
- Crackers, peanut butter & jelly
- Ready-to-eat meals
- Canned vegetables (1 can per 2 people)
- Canned meat (1 can per 2 people)
- Canned soup (1 per person)
- Canned fruit (1 can per 2 people)
- Granola and/or snack bars
- Cereal (1 box per 4 people)
- Disposable eating utensils
- Extra Batteries
- Manual can opener
- Car adapter for small electronics
- Disposable dust mask (1 per person)
- Duct tape
- Flashlight
- Whistle
- Collapsible shovel
- Fire extinguisher
- Hammer, nails, pliers, hard hat & screwdriver
- Crowbar
- Safety goggles

## IF NEEDED

- Diapers
- Baby bottles and formula
- Baby Food
- Contact lens solution
- Denture supplies

## PET SUPPLIES

- Pet food
- Water
- Pet leash & crate
- Copies of pet vaccination/prescription information
- Litter pan

## COSMETICS/ PRESCRIPTIONS/FIRST AID/TOILETRIES

- Essential medications \*
- First-aid
- Toilet Paper
- Disposable wipes
- Travel sized shampoo, body wash & deodorant
- Mirror
- Toothbrush, toothpaste & floss
- Hairbrush
- Bleach
- Pain reliever
- Laxative/ant diarrheal medication
- Antacid
- Paper towels
- Dishwashing liquid
- Thermometer
- Tweezers
- Sunscreen
- Disinfectant
- Petroleum jelly
- Kleenex
- Rubbing alcohol
- Adhesive tape
- Liquid detergent and hand soap

## MISCELLANEOUS

- Cash ( in small denominations)

- Five gallon bucket with lid
- Plastic Tarp
- Work gloves
- Camp style stove, fuel & matches in waterproof container
- Paper, pen & scissors
- Disposable plates
- Heavy duty garbage bags
- Pan
- Rolled bandages & safety pins
- Extra glasses, hearing aid batteries & batteries for mobility equipment
- Extra keys to house & car
- Toys
- Map of local area
- Sewing kit
- Signal flare & compass
- Essential documents (insurance, social security, driver's license, bank)

\*See the prescriptions and life safety systems section for more details



Remember to place all items in either a duffle bag or storage tote and keep in an easily accessible location. A great way to remember to check expiration dates on items and make sure the kit is fully stocked is to check your kit every 6 months when you set back or move forward your clocks.



# Special Needs

If you or someone close to you has a disability or a special need, you may have to take additional steps to protect yourself and/or others in an emergency.

- To find out about special assistance that might be available to you in the event of a disaster contact the Scott County Health Department at 563.326.8618 or the United Way of the Quad Cities Help Line at 211 or [unitedwayqc.org](http://unitedwayqc.org).
- Create a network of neighbors, relatives, friends and coworkers to aid you in an emergency. Discuss your needs and make sure everyone knows how to operate necessary equipment.
- Mobility impaired may need special assistance to get to a shelter.
- If you are mobility impaired and live or work in a high-rise building have an escape chair.
- If you live in an apartment building, ask the management to mark accessible exits clearly and to make arrangements to help you leave the building.

- Keep specialized items ready, including extra wheelchair batteries, oxygen, catheters, medication, and other items you might need. *Also see Prescriptions and Life Safety Equipment.*

- Be sure to make provisions for medications that might need to be refrigerated.

- Keep a list of the type and model numbers of medical devices you require.

- Hearing impaired may need to make special arrangements to receive warnings.

- People with special dietary needs should take special precautions to have an adequate emergency food supply.



# Prescriptions and Life Safety Equipment

Although we all try to prepare for emergencies by stocking up on food and other items before predicted weather and similar events, it can be difficult to do this with prescription medication and home life safety equipment. Here are some tips to help you prepare for emergencies:

- If you require life safety equipment such as oxygen, ask your provider about their procedures for response/re-supply during emergencies. Make sure your contact information is current with your provider.
- Know your insurance company's policies and talk to your pharmacist about refilling prescriptions early.
  - Some insurance carriers will allow you to fill prescriptions early a couple of times per year for vacations and other needs, call your carrier to find out.
  - If your insurance company does not allow for early refills, your pharmacy may be able to provide your prescription to you if you pay in cash.



Most importantly don't panic. Prior planning will help ensure you are protected.

## Phone and Cell Phone Communication

Like everything, telecommunication devices and infrastructure can be vulnerable to energy disruptions and other emergencies that impact distribution and transmission infrastructure. Although telecommunication providers have built redundancy, response and mitigation methods into preventing disruptions, the nature, duration, expanse and preparedness for electric and other infrastructure outages can impact how resilient these systems are.

- Consider maintaining a land-line and a corded phone (a phone that does not require AC power in addition to the phone jack). Corded phones do not require electricity so when the power goes out these phones will continue to work just as long as transmission and distribution infrastructure are not damaged.
- Charge your cell phone before a predicted emergency.
- Keep a cell phone car charger to provide backup power in the event of an electrical outage.
- During extended electrical disruptions use your cell phone sparingly and adjust your power saving settings such as screen brightness.



## Loss of Power May Mean Unsafe Food

Short-term power outages do not generally result in loss of perishable foods. However, long-term outages can result in food loss and food born illness. There are steps you can take to prevent food loss and food born illness.

### THINGS TO KNOW:

- Refrigerated food will stay ok for a few hours if you keep refrigerator and freezer doors closed as much as possible. An unopened refrigerator will generally keep foods cold for about 4 hours.
- A freezer will generally keep its temperature for about 24 hours if it is half full and 48 hours if it is full, and if the doors remain closed.
- The most hazardous foods are meat, fish, poultry, dairy and eggs.
- If the food is warmer than 41 degrees, thawed but still cold or has ice crystals on it, discard the food. Do not rely on appearance or odor and never taste food to see if it is ok. Consider keeping a digital quick response thermometer to quickly check internal temperature of food to ensure it is cold enough to use safely.
- When in doubt, throw it out.

### THINGS YOU CAN DO TO HELP PRESERVE FOOD FOR LONG TERM OUTAGES:

- Keep one or more coolers in your home. Ice pack foods to keep them safe for use longer. If the outage occurs in the winter, outdoor temperatures (below 30 degrees) are cold enough to maintain food safety.
- Use food from the refrigerator and freezer before using your nonperishable food supplies.

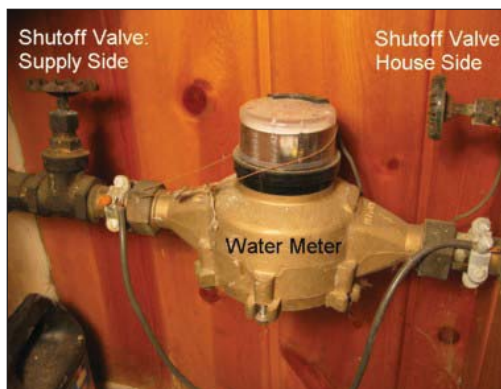
### OTHER PRECAUTIONS AND TIPS:

- Unplug the refrigerator to protect it from possible power surges when power is restored.
- Allow time for the refrigerator to come back on and regain its temperature before filling with perishable foods again.
- Spoiled food can be placed in your solid waste receptacle or disposed of at the Scott Area Landfill.



# Water Supply

It is always a good idea to conserve our natural resources by reducing unnecessary use. However, during an emergency, water conservation may not be the only tool you need to implement to protect you and your home.



**Know where the water supply shut-off valve to your home is** and how to shut-off the water supply (not the valve in the street, this valve is generally located near your meter in your home).

- Local utilities may ask you to shut-off the water supply in your home when there is a potential for contamination or when there is a potential that the water distribution system is not functioning.

- Knowing where your shut-off valve is and how to shut-off the water supply will help protect your home from damage if a pipe bursts and you need to shut-off your water supply.

- If you rely on well water, an energy disruption can also render system pumps useless. In the event water can't be pumped from the well, the effects of gravity may drain the water in your hot water heater and toilet tank unless you trap it in your house by shutting off the valve.

**Keep water pipes from freezing and causing costly damage to your home.**

- Leaving the water dripping just a little from your faucets will help to keep pipes from freezing. The cost of the extra water is low compared to the cost to repair a broken pipe or replacement of a frozen meter.

- Protect and insulate your pipes and water meter in unheated areas.

**If your pipes or water meter freezes:**

- Shut-off the water supply immediately. Do not attempt to thaw frozen pipes unless the water is shut-off. Freezing can often cause unseen cracks in pipes and joints.

- Open the cold water faucet nearest the frozen pipe. This relieves the pressure and allows the ice to expand down the length of the pipe reducing the chance of breakage.

- If your pipe(s) is frozen, but has not burst, open cabinet doors or remove other obstructions to allow warm air to circulate around the pipe once power and heat has been restored. It is important that the water is shut-off before attempting to thaw frozen water lines or meters.

- Never attempt to thaw a pipe with an open flame, danger of fire is too great! Using a hair dryer, space heater, or exhaust from a vacuum cleaner also present hazards. If the pipe bursts while using electrical appliances you may be electrocuted. The best course of action is to allow the pipes to thaw with time.

**Know what to do if a Precautionary Boil Advisory has been issued.** A boil advisory may be issued if there is a potential the water supply could be contaminated. The advisory means people should boil their tap water before using it for drinking or other human consumption such as cooking, washing dishes, hand washing, brushing teeth and bathing.

- Boiling is the safest and most effective method of removing bacteria, viruses and parasites from contaminated water. Bring water to a rolling boil for 3 to 5 minutes and allow to cool. Strain through cheese cloth, coffee filter or other porous material to remove any debris. Use or store in clean containers.

- There are other special precautions you should take when a boil advisory has been issued:

- It is generally safe for adults to shower if care is taken not to swallow the water when showering. Young children and others susceptible to illness should be sponge bathed.

- Do not use powdered or condensed infant formulas with contaminated water. Use only prepared canned baby formula.

- Take the same precautions to protect your pets as you would yourself.

- Do not use contaminated water to water fruit and vegetable plants.

- If you use a water treatment system, do not assume your water is safe. Most systems are not designed to remove bacteria, viruses or other contamination. Refer to your water treatment system manual or supplier.

- When a boil advisory is lifted follow any instruction provided by the issuing authority. Be sure to flush all water lines by running water.



# Caring for Pets

Animals can also be affected by disasters. Use the guidelines below to prepare a plan for caring for pets and large animals.

- Train your dog. Obedience may save its life during an emergency and help to make it a welcome guest if you have to evacuate.

- Prepare a disaster kit(s) for each pet(s). Include pet food your pet would normally eat to avoid diet changes during stressful situations. Food should be placed in pest resistant containers. Check the contents of the kit and rotate all foods into use and replace with fresh food every two months. Other items recommended are: an extra collar and tag, harness or leash, a toy or blanket your pet is familiar with, food and water bowls, and bags and hand sanitizer for pet waste handling and disposal.

- Muzzles may be needed to control agitated and aggressive animals. For dogs these can be made from gauze rolls or panty hose. A muzzle or towel can be used for cats. A towel can be used to restrain your bird if it becomes agitated and aggressive during the confusion.

- Identify possible shelters, such as kennels and hotels that allow pet boarding. Be sure to research shelters outside your local area in case local facilities are closed/ impacted by the event. Often, with the exception of service animals, pets are not typically permitted in emergency shelters as they may affect the health

and safety of other occupants. Listen to the emergency alert system on your radio or television for instructions on what you should do and whether special arrangements have been made for people with pets.

- Maintain a copy of your pet's veterinary records including proof that vaccinations are current. Boarding facilities may not accept your pet(s) without proof of health.

- If your pet is on medication, ask your veterinarian about keeping extra supplies of medication or a copy of the prescription for these medications in your kit. Mark your calendar to replace medications before they expire.

- A pet carrier might also help in the event of an emergency. It is recommended that you crate your cat or dog immediately in the event of a disaster. If you don't the pet may sense danger and hide or become more difficult to catch and crate.

- Familiarize your pet with being transported. You can practice drills with your pet by getting it used to riding with you in your car. That way it will not be unduly alarmed if it has to evacuate in a disaster. \*Cats can be very difficult to catch when they are stressed or afraid. Practice catching and transporting your cat in a crate and carrying it

around the house. This will allow your pet to become familiar with the transport box.

- Keep a recent photo of your pet.

## Caring for Large Animals

Farm evacuations present unique problems. Appropriate planning is essential. Evacuations are best coordinated with neighbors, friends, livestock associations and horse clubs, and county extension educators. Both the destination and the method of transport need to be sorted out well in advance of any need.

Every farm owner should have alternative accommodations planned for their animals in the event of a disaster. These contacts should be confirmed at least once per year. County extension educators often have good relationships with the owners

and managers of fairgrounds, racetracks, etc. and may be consulted when identifying facilities that may be available. Be sure when selecting facilities to choose those that will not likely be affected by the same disasters you are planning for.

### FEEDING

When livestock and horses are evacuated and housed in large numbers, adequate amounts of feed may be difficult to procure. Develop lists of feed and hay suppliers in your area and know how much water and feed you will need.

Avoid dietary changes. When the diets of horses or livestock change, they become predisposed to colic, laminitis and metabolic diseases. Feeding diets that have moderate energy levels and meet the minimum nutritional requirements reduces the likelihood of illness.





# Staying Cool During an Power Outage

Options for staying cool during extreme heat when there is no access to cooling:

- Move to an established shelter. Media advisories will include the locations of established shelters in your area or you can call the American Red Cross at 309.743.2166.
- Take shelter at another private home or facility that has power and that you have been invited to use by the Owner.
- Shelter in place.

Whether you shelter in place or not, if the power has gone out unplug your major appliances and electronics. This will help avoid damage to electronics and appliances as a result of power surges that can occur when the electricity comes back on. Leave a light on so you know when the power comes back on.

If you shelter in place,

- Consider moving to the lower levels of the house. Heat rises so lower floors will be cooler.
- Close windows and blinds while the sun is up. Keeping windows and doors closed up will allow the house to stay as cool as possible for the longest amount of time.
- Never burn anything larger than a candle inside your home and be sure to place candles away from flammable material such as window coverings and furniture. It is always a good idea to have a fire extinguisher in your home.

Whether you do or do not have access to cooling be sure to take these steps to avoid severe heat related illness such as heat exhaustion and heat stroke.

- Drink Plenty of Fluids. Increase fluid intake, regardless of your activity level.
- Replace Salt and Minerals. Drink replacement beverages such as sports drinks.
- Wear Appropriate Clothing and Sunscreen. Choose lightweight, light-colored, loose-fitting clothing.
- Schedule Outdoor Activities Carefully. Plan outdoor activity for morning and evening hours.

- Pace Yourself. Work slowly if you are not used to working or exercising in a hot and humid environment.
- Use a Buddy System. Watch others for heat-induced illness, since some people can become confused or lose consciousness.
- Do Not Leave People or Animals in Cars. Even in cool temperatures, cars can heat up to dangerous temperatures very quickly.
- During periods of high heat and humidity, it's also a good idea to periodically check on neighbors or relatives who may not have air conditioning.

## KNOW THE SIGNS OF HEAT RELATED ILLNESS

Heat related illnesses can vary in severity. Heat rash and sunburn primarily affect the skin and usually do not require medical assistance. Heat cramps, heat exhaustion and heat stroke are severe forms of heat related illness.

- Sunburns are red, painful, and are accompanied by abnormally warm skin after sun exposure. Sunburns can be treated by using moisturizing lotion, avoiding additional sun exposure, and keeping the skin cool with cold compresses or cool water. Sunburns that are severe or affect infants younger than 1 year of age may require medical attention.
- Heat rash appears as a cluster of red pimples or small blisters and can be treated by keeping the skin cool and dry.
- Heat cramps are muscle pains or spasms, and can occur in association with strenuous activity as the body loses salts and fluids via sweating due to high temperatures. Heat cramps can be a symptom of heat exhaustion, and should be treated by stopping all activities for at least a few hours and drinking water plus juice or a sports beverage. If symptoms do not resolve in 1 hour, seek medical attention.
- People with heat exhaustion can experience heavy sweating, tiredness, weakness, dizziness, headaches, nausea, vomiting, have pale skin or faint. Treatment of heat exhaustion includes drinking cool, nonalcoholic beverages, taking a cool shower, bath, or sponge bath, getting rest, moving to an air-conditioned environment and changing into lightweight clothing. If symptoms are severe, worsen, do not resolve after an hour, or if the person has heart problems or high blood pressure, seek medical attention. If heat exhaustion is left untreated, and the person continues the activities, it may progress to heat stroke.
- Heat stroke occurs when the body is unable to cool down. It is characterized by high body temperature (above 103°F, orally), red, hot, and dry skin (no sweating), rapid, strong pulse, throbbing headache, dizziness, nausea, confusion or unconsciousness.

If a person is experiencing heat stroke, seek medical assistance immediately and begin to cool the individual. Cooling efforts should continue until medical assistance arrives. Cool the person by getting them into shade, having them take a cool shower, bath or sponge bath, or wrap the person in a cool, wet sheet and fan him or her vigorously.

# Staying Warm During a Power Outage

**Know the dangers of sheltering in place to protect you, your family and your community. Some energy alternatives can have lethal consequences if you don't take the proper precautions. The most common hazards are carbon monoxide poisoning, electric shock and fire.**

Any number of things can cause an energy outage during the winter months. Often the cause is weather-related and can be widespread or localized. Options for staying warm during a winter energy outage:

- Move to an established shelter. Media advisories will include the locations of established shelters in your area or you can call the American Red Cross at 309.743.2166.
- Take shelter at another private home or facility that has power and that you have been invited to use by the Owner.
- Shelter in place.

Whether you shelter in place or not, if the power has gone out unplug your major appliances and electronics. This will help avoid damage to electronics and appliances as a result of power surges that can occur when the electricity comes back on. Leave a light on so you know when the power comes back on.

**Know the dangers of sheltering in place to protect you, your family and your Community.**

Some energy alternatives can have lethal consequences if you don't take the proper precautions. The most common hazards are carbon monoxide poisoning, electric shock and fire.

- Never hook a generator up to your home's electrical system without a transfer switch. This can result in shock, electrocution, fire and other damaging affects to you, your family and others in our community. See page 27 to learn more about safe generator use.
- Never use a generator, grill, camp stove or other gasoline, propane, natural gas or charcoal-burning device inside a home, garage, basement, crawlspace or any partially enclosed area. All can emit deadly carbon monoxide.
- Never use your oven to heat your home. There is a danger of overheating and generating lethal carbon monoxide levels.
- Be sure your fireplace system is functioning properly each year. Know your system. Wood burning fireplaces can remove oxygen from a room if the room or area is closed too

tightly. You will need to consider what rooms/areas can safely be blocked if you are isolating an area to heat.

- Never burn anything larger than a candle inside your home and be sure to place candles away from flammable material such as window coverings and furniture. It is always a good idea to have a fire extinguisher in your home.

### Try to Stay Warm.

Conserve body heat by wearing layers, including sweaters, sweatshirts, coats and jackets. Most of your heat loss is through your hands and the top of your head, be sure to keep them covered by wearing gloves and a knit hat. If cold temperatures are severe, your bed may be the warmest place to be. Extra blankets and coverings will help trap body heat.

Move to the warmest room in the house. Avoid rooms with large windows or un-insulated walls. Interior bathrooms often have the lowest air leakage and heat loss. Your basement might also be a warm place in cold weather because the earth acts as insulation and minimizes heat loss. Hang drapes, bedding, or shower curtains over doors and windows, especially at night to reduce heat loss.

**Know the Symptoms of Hypothermia and How to Treat It.** Hypothermia is a condition in which a person's body temperature drops significantly below normal. This occurs from inadequate protection against exposure to cold temperatures. The very young and elderly are the most susceptible to developing hypothermia when exposed to cold temperatures.

The risk and extent of hypothermia is directly influenced by the presence of wet clothing, contact with metals, wind-chill and extent of temperature range between the body and its surroundings. Vulnerability is increased when circulation is impaired by cardiovascular disease, alcohol intake, exhaustion and/or hunger.

Symptoms of hypothermia included uncontrolled shivering, slow or unclear speech, feeling extremely tired, stumbling when attempting to walk, confusion/can't think clearly, semi-consciousness or unconsciousness. If warmed improperly, death may result.

In a hypothermic person, cold blood is concentrated in the extremities. If these extremities are warmed too quickly, this cold blood will be released into the body's central core, possibly lowering the central core temperature to a fatal level. Use the following steps to raise the core temperature of a hypothermic person.

- Get the person into dry clothing if their clothes are wet.
- Put on additional clothing to warm the person's head and trunk, such as a hat and vest.
- Wrap the person in a warm blanket and be sure their head and neck are covered. Do not cover their extremities.
- Place next to warmth but not high heat.
- Give them warm, but not hot, liquids to drink. Do not give them alcohol, drugs or coffee.
- Seek medical attention, if necessary. If unconscious seek immediate medical attention.
- Hypothermia can develop in elderly people in a cool room with few, if any, warning signs.

# Backup Generators

A backup generator can be of great benefit during electric outages, especially during extreme weather. However, improper operation and connection can result in fire, explosion, shock and death. Consult a professional electrician and know how to properly operate your generator before using it.

A portable backup generator uses an internal combustion engine to provide temporary power. Proper connection, sizing, placement and use are essential to safe operation.

## PROPER CONNECTION

Improperly connected portable backup generators can be deadly to you, your family and utility workers.

- Never hook up a portable backup generator directly to your electrical system, unless a licensed electrician has installed a properly sized transfer switch on your home's electrical system. The only safe way to run electricity through your home wiring with a generator is to use a manual or automatic transfer switch. The switch isolates your home wiring from power lines so electricity runs through your home but does not get sent back out on to lines. **Without a transfer switch, electricity generated may result in harmful back feed onto power lines putting you, utility workers and your home at risk of shock, electrocution, fire and other hazards which you would be personally and monetarily liable for.**

- Never hook up a portable generator directly to your household outlet. This too can start a fire in your home and create hazardous back feed conditions.

- Make sure your generator is properly grounded.

Customers using generators should notify their electric utility. This information helps utility workers identify the location of possible additional connections to the electric system.

## PROPER PLACEMENT

Portable backup generators emit deadly carbon monoxide. For your safety:

- Never place a generator indoors or in enclosed spaces such as a garage, basement or crawl space.
- Locate generators away from doors, windows and vents that could allow carbon monoxide to come indoors. Make sure the generator has clear space around it to ensure adequate ventilation.
- Have carbon monoxide detectors installed in every level of your home and near sleeping areas. Carbon monoxide detectors can provide early warning of hazardous carbon monoxide levels. If your carbon monoxide detector alerts you to hazardous conditions or if you are experiencing the signs of carbon monoxide poisoning go outside immediately and seek help. Do not re-enter until safety professionals have deemed the area safe.

## PROPER SIZING

Know the capacity of your generator. Never use your portable generator to operate more appliances and equipment than the output rating of your generator. Overloading the generator can create a fire hazard and may damage appliances and equipment connected to the generator. Make sure that the generator you purchase is rated for the power that you think you will need; get advice from a professional, such as an electrician.

## PROPER USE

- Carefully read and follow the manufacturer's instruction.
- Keep kids away from generators.
- Always use a UL (Underwriters Laboratories) rated, three-prong extension cord properly sized for the intended load that has a grounding conductor when connecting electrical appliances to a generator or other power source. Never use electrical tools or appliances with frayed cords, missing grounding prongs or damaged or cracked housings.



Never hook up a portable generator directly to your household outlet. The only safe way to run electricity through your home wiring with a generator is to use a manual or automatic transfer switch.

# Backup Generator Use and Tips continued...

- In homes not equipped with a transfer switch (most common):
  - Before connecting your appliances and equipment, shut-off all appliances and equipment to be connected to the generator. Plug appliances into the extension cord and then plug the extension cord into the generator. **Never plug the generator into a home outlet.**
  - When disconnecting appliances and equipment from a portable generator, turn-off appliances and equipment, unplug appliances and equipment from extension cords, shut-down the generator and then unplug the extension cord from the generator.
- In homes equipped with a transfer switch, power off and unplug all appliances and equipment that will not be energized by your backup generator.
- Never refuel a generator while it is running or warm to the touch. Generators will become hot when running for long periods and can present a fire hazard. Shut-down the generator and allow it to cool before fueling.
- Store flammable generator fuel outside of your home and away from ignition sources, such as the generator itself, cigarettes, lighters and matches.



## STATIONARY GENERATORS

Stationary generators may be powered by petroleum or natural gas products, are equipped with cooling systems that allow them to be enclosed and are mounted outdoors in a permanent fashion. A benefit of stationary generators over portable generators is that they are safer and easier to use because they are permanently and safely connected to your home electrical supply. Contact local electrical contracting professionals for more information.



## BEFORE YOU BUY

No method is fool proof. Before purchasing a generator, do your homework. For example, if you are interested in installing a natural gas fueled generator you will need to check with your utility provider to verify there is enough gas system capacity to support the generator and other customers on that gas main. There are many manufacturer and other website resources that can help you understand proper sizing, maintenance, hazards and other benefits and concerns. Your best resource is an electrical contractor.

For a listing of licensed and bonded electrical contractors in Davenport visit [www.cityofdavenportiowa.com/building](http://www.cityofdavenportiowa.com/building) or for a listing of all electrical contractors licensed in the State of Iowa, visit the Iowa Department of Public Safety at <http://www.dps.state.ia.us/fm/electrician/> use the licensed electricians link found on this page.



# Fireplaces and Stoves

## WOOD BURNING STOVES AND FIREPLACES

Be sure your fireplace system is functioning properly each year. Know your system. Wood burning fireplaces can remove oxygen from a room if the room or area is closed too tightly. You will need to consider what rooms/areas that can safely be blocked if you are isolating an area to heat.

## NATURAL GAS LOG AND PRE-FABRICATED FIREPLACES

Wood burning fireplaces converted to gas log fireplaces often require electronic ignition to start. Consult your owner's manual to find out if your gas log fireplace can be manually lit safely during a power outage. Never leave a gas log fireplace on and unattended.

Pre-fabricated gas fireplaces rely on electricity to operate items such as fans and vents. Air movement generated by vents and fans is lost during power outages and can present hazardous conditions in fireplaces when used for an extended period of time due to overheating. Consult your owner's manual to find out if your gas pre-fabricated fireplace can be manually lit safely during a power outage. Never leave a pre-fabricated fireplace on and unattended.

*Whenever you use a space heating device, whether it is a space heater, fireplace, gas log converted or pre-fabricated fireplace, never leave it on unattended.*



# Space Heaters

Keep the following guidelines in mind when space heating using a space heater, wood burning, natural gas log or pre-fabricated fireplace or a vented stove to keep warm during an energy disruption or throughout the year.

*If you are using a space heater to keep warm during an energy disruption make sure it is properly connected to an exterior generator.*

To increase efficiency of available heat, close off all rooms except the one to be heated.

- When selecting a room or area to be heated, consider a room on the warmest side of your house and avoid rooms with large windows or uninsulated walls.
- Isolate the room from the rest of the house by keeping doors closed, hanging bedding or heavy drapes over entryways, or erecting temporary partitions of cardboard or plywood.
- Hang drapes, bedding, or shower curtains over doors and windows, especially at night.

## SAFE USE OF PORTABLE SPACE HEATERS

Be cautious with portable space heaters. Be sure to follow manufacturers instructions for safe venting and use. Place them at least three feet away from any combustibles such as wall paper, bedding, draperies, clothing and furniture. Never leave them operating when you are away from the room or asleep. Don't leave children or pets unattended with a space heater and never use them to dry clothing, shoes or mittens.

**Never use** kerosene heaters, grill, camp stove or other gasoline, propane, natural gas, charcoal-burning devices or any outdoor type heater inside a home, garage, basement, crawlspace or any partially enclosed area. All can emit deadly carbon monoxide.



As with any appliance or piece of equipment, when using a wood burning stove or fireplace, know how to safely use your system.

# Natural Gas

Natural gas is the primary heating source for most of our Davenport and Scott County Community. Natural gas is not used for furnaces alone; it also powers water heaters, stovetops and ovens, not to mention gas log and pre-fabricated fireplaces.

Natural gas powered appliances and equipment often rely on other elements that require electricity; such as stovetop and oven ignitions or vents and fans associated with gas log conversion and pre-fabricated fireplaces. There are also other inherent hazards associated with natural gas leaks and improperly operated natural gas systems during electrical outages that you should be aware of.

The following is what you need and should know about natural gas.

- **Natural Gas Supply Loss and Disconnections.** A natural gas event may eliminate natural gas supply to your home. In this event, shut-off all natural gas valves in your home. Once natural gas is supplied back to your home after an outage, the utility will often come back and relight your appliances. If your natural gas supply has been disconnected for longer than 12 months or has been subjected to flooding or other significant damage, your system will need to be inspected by a Building Official or professionals before the connection can be resupplied by your utility. Consult your local Building Codes for more information.

- **Pilot Lights.** Generally items that have a pilot light can be re-lit without hazard; however, certain conditions can make this hazardous. Do not re-light a pilot where the smell of natural gas is present. If you smell gas, exit the structure immediately and call 911 from outside the structure. Do not re-enter the area until you have been advised that it is safe.



- In a power outage, electric stovetops and ovens will not work. However, you can manually light a gas stovetop or oven in the absence of electricity by turning on the gas/temperature valve and using a match. Do not attempt to use the stove or oven as a heating source, as such use presents overheating and carbon monoxide hazards.
- In a power outage, your water heater should remain lit. If your water heater is not lit, relight it just as you would a stove or oven.
- Never relight a pilot if you feel uncomfortable doing so. Your local utility can assist with relighting pilot lights on request.



## MIDAMERICAN ENERGY COMPANY NATURAL GAS TIPS

Customers should remember that accumulations of snow and ice can interrupt a home's or business' natural gas supply and create unsafe operating conditions. The following precautions can keep your gas supply uninterrupted and operating safely.

- Avoid plowing or piling snow against meters or gas regulators.
- Use a broom rather than a shovel to clear snow from meters or gas regulators.
- If a meter or gas regulator becomes encased in ice, do not try to melt or chip the ice. Call MidAmerican Energy Company at 800-799-4443 or your local utilityforservice.
- In a safe manner from the ground, carefully remove icicles from the section of roof or gutter that overhangs the meter. Water that drips on meters or gas regulators can freeze and cover the equipment with ice.
- Customers who have not been upgraded to automated meter reading are encouraged to clear a path to the meter. A clear path to the meter will help MidAmerican Energy Company meter readers stay safe and prevent estimated reads and inaccurate bills.

# Propane

**If you smell gas, exit the structure immediately and call 911 from outside the structure. Do not re-enter the area until you have been advised that it is safe.**

Some homes rely on propane for heating needs. Propane is not used for furnaces alone; it also powers water heaters, stovetops and ovens, not to mention gas log and pre-fabricated fireplaces.

Propane powered appliances and equipment often rely on other elements that require electricity; such as stovetop and oven ignitions or vents and fans associated with gas log conversion and pre-fabricated fireplaces. There are also other inherent hazards associated with propane gas leaks and improperly operated propane systems during electrical outages that you should be aware of.

The following is what you need and should know about propane.

- **Propane Gas Supply Loss and Disconnections.** If your propane supply has been disconnected, shut-off all gas valves in your home. Once gas is supplied back to your home after an outage, it is safe to relight your appliances. If your gas supply has been subjected to flooding or other significant damage, your system should be inspected and serviced before reconnecting supply. Consult your local Building Official as applicable to the City you live or your service provider for more information.
- **Pilot Lights.** Generally items that have a pilot light can be re-lit without hazard; however, certain conditions can make this hazardous. Do not re-light a pilot where the smell of propane gas is present. If you smell gas, exit the structure immediately and call 911 from outside the structure. Do not re-enter the area until you have been advised that it is safe.
- **In a power outage, electric stovetops and ovens will not work.** However, you can manually light a gas stovetop or oven in the absence of electricity by turning on the gas/temperature valve and using a match. Do not attempt to use the stove or oven as a heating source, as such use presents overheating and carbon monoxide hazards.

- **In a power outage, your water heater should remain lit.** If your water heater is not lit, relight it just as you would a stove or oven.
- **Contact your propane supplier for assistance with relighting pilot lights if you feel uncomfortable lighting them.**
- **You can purchase a propane leak detector to help reduce the risk to your family through early warning and detection.**
- **Regularly maintain appliances powered by propane.**
- **Furnaces should be cleaned regularly, check with your propane retailer and owner's manual for cleaning instructions.**
- **Propane fueled water heaters may be affected by sediment build-up, drain your tank until the water runs clear to remove build-up.**

Unlike natural gas, propane is heavier than air and will often pool in a basement. If you smell gas, exit the structure immediately and call 911 from outside the structure. Do not re-enter the area until you have been advised that it is safe.





# Fuel Emergencies

Petroleum, or fuel, emergencies are a long-term disruption of available petroleum products. This can be the result of transportation industry strikes, natural disasters that shut-down transportation routes or even natural and man-made disaster that impact production of gas and diesel fuels.

Federal and State government have protocols in place to reduce the impact of long-term petroleum disruptions. However any significant petroleum event will take a productive community response to ensure vital services continue during these types of energy emergencies.



Through the Energy Assurance Planning process, the City and County inventoried the general fuel supply needs of City and County infrastructure and services. This inventory was further prioritized into critical functions/needs and an analysis of available supply and alternate supply was performed.

Through the energy assurance planning process, the City and County developed a thorough understanding of their fuel supply needs, the fuel supply needs of private sector essential service providers, alternative supply mechanisms and mitigation methods. With this understanding the City and County are now more capable of ensuring continuity of operations of essential services and infrastructure during a fuel emergency.

**You can and may be asked to help reduce risk and ensure vital services continue during petroleum emergencies.**

- Car pool
- Use alternative transportation, such as walking, biking, and using public transportation
- Don't panic buy, panic buying only creates unrest and reduces area supply for emergency service providers
- Eliminate non-essential travel
- Some companies may even implement work from home or other mitigation methods to help promote recovery within the Community

# Flooding Emergencies

## FLOODS, SEWER BACK-UPS AND SUMP PUMP FAILURES

Past development within local floodplains has placed some homes and businesses in potential flood hazard areas. Overflow of the Mississippi River and its tributaries which flow through Davenport and Scott County are responsible for flooding in low-lying areas. The most severe flooding generally occurs during the late spring as a result of snow melt and heavy rains.

Creeks are often subject to flooding as a result of intense rainfall in conjunction with snow melt in the spring and in the summer slow moving storms producing heavy localized rainfall can create flash floods conditions. Hydraulic restriction such as bridges, ice jams and debris are also contributing factors to creek flooding.

Sewer backups and sump pump failures often occur with little to no notice.

Flash flooding, sewer backups and sump pump failures are somewhat difficult to prepare for. However, any preparation you do can exponentially help in recovery from any event. **Follow the tips below are if you are able. NEVER enter a structure with standing water.**

- At least annually, purchase and/or ensure your flood and homeowner's insurance policy is in effect and understand its coverage.
- If you have purchased insurance that covers the contents of your property, be sure to maintain a detailed list of your home or business's contents. Refer to FEMA Publication F-687.
- Regularly check your sump pump to ensure it is functional. Check the sump pump monthly, and if flood conditions or heavy rain events are predicted, check it more frequently such as weekly or daily.
- Plan for an emergency. Our guide is an excellent resource for making emergency plans.
- Know where shut-off devices are. Simple measures such as knowing how to shut-off your gas, electric and water supply can help reduce injury and aid in cleanup.



- Consider installing a Backflow Preventer or Check Valve. Having a backflow preventer on drinking water lines can prevent contamination in the event of a water line break or other incident and a check valve on your sanitary sewer line can prevent sewer backup and contamination of your home. These items should be installed under a permit by professionals and inspected.

- Be sure you and your family are aware of the hazards.

- Do not walk through flowing water. Drowning is the number one cause of flood related deaths. Six inches of moving water can knock you off your feet.

- Stay away from power lines and electrical wires. Electric current can travel through water and rain saturated ground. NEVER enter a structure with standing water; the water could be energized. Electrocutation is the number two cause of death in a flood event.

- Do not drive through a flood area, roads and bridges may be washed away. **Only one to two feet of flowing water can easily float a three ton vehicle.**

**BEFORE A FLOOD**

If you live in a flood prone area, you should take the following steps and precautions when preparing for a flood. You should also consider these precautions if you have experienced basement flooding due to a sewer backup or sump pump failure.

- If time allows, contact your local utility to have your electricity and natural gas services temporarily disconnected. MidAmerican Energy Company will temporarily disconnect a customer’s service if:

- A customer requests to have service disconnected.

- MidAmerican Energy Company determines a situation is hazardous if service is not disconnected.

- Local emergency or city officials request disconnection of services in an impacted area.

- Contact your local service provider if you do not use MidAmerican Energy’s services.

If there is no standing water and if floors are not damp:

- Unplug or disconnect electrical appliances.

- Switch off the circuit breakers at the main switch, located in the electrical box.

If you have not already done so and if it appears the water level may reach the main electrical box or your electric or natural gas meters, call MidAmerican Energy Company (or your service provider) immediately to have service disconnected.

If there is no standing water and you have time and some forewarning:

- Move hazardous materials off-site or to higher ground; paints, fuels, chemicals, pesticides, etc.

- Move valuables and important papers off-site or to higher ground.

- Unplug large appliances such as refrigerator, stove and TVs and move off-site or to higher ground if you are able. If these appliances become affected by water, you will have to replace them.

- Have a professional remove heating and air conditioning equipment. If these appliances become affected by water, you will have to replace them.

Another way you can protect yourself is by having an up-to-date tetanus shot.

*It never hurts to turn both gas and electric sources off at the panel/ valves located in your home and to have MidAmerican Energy Company or your local utility disconnect services; this adds to the level of protection for yourself and others.*

Six inches of moving water can knock you off your feet. Drowning is the number one cause of flood related death.

Electric current can travel through water and rain saturated ground. Electrocutation is the number two cause of flood related death.

**AFTER A FLOOD OR OTHER SUBMERGENCE EVENT**

Even if you have turned off your electricity at the panel or your local utility has turned your electricity off, do not re-energize the panel or any appliances, including outlets and switches, without first having your property examined by Building Officials or an electrician as applicable to the City you live in.

If you smell natural or propane gas, do not enter the building. Call 911.



**BEGIN THE RECOVERY PROCESS**

■ If your property has been affected by floodwater or your property has been affected by a sewer backup or sump pump failure and you maintain flood and homeowner’s or renter’s insurance, call your insurance agent to begin the process of filing a claim.

■ Contact your city’s Building Officials as it applies. In the City of Davenport you must call the Public Works, Building Inspection Division at 326-7745 for an inspection before entering a property inundated by water or sewer.

■ Inspectors will be able to provide information on next steps to take before entering the structure. This initial general inspection is intended to protect you and others from further hazards as a result of floodwaters. Possible hazards associated with a structure that has been flooded include, but are not limited to:

- Standing water/electrocution hazard.
- Structural damage that could lead to building collapse. Structures affected by floodwaters may have experienced foundation movement, load bearing walls may be out of plumb and floors loaded with water may not be able to provide adequate support until drained.

■ After an inspection you will be provided with information about how to safely enter the structure. This may include:

- Contacting Mid-American Energy to ensure gas and electrical connections are not energized.

- Pumping water from a basement through an exterior penetration such as a basement window.

■ Once it is determined you are able to safely enter the structure, begin the cleanup and documentation process.

■ For protection, wear rubber boots, gloves and goggles. Wear a mask to prevent inhaling contaminated dust where insulation and drywall removal is necessary.

■ Remove moisture and debris from all surfaces and get surface materials dry within 24-48 hours if you are able. Use outside air to dry your home. Open windows and doors and use an exhaust fan to remove moist air from the house. If available, use a room de-humidifier. Empty it often.

■ To reduce health hazards, thoroughly clean the affected areas as soon as possible. Use a cleaning solution of two tablespoons of chlorine bleach to one gallon of water.

■ Do not turn electric or gas service back on until a licensed and bonded electrician has inspected the system and replaced all necessary components. All electrical wiring, panels, switches, and outlets that have been affected by water must be replaced or reconditioned per the National Electrical Code. Once the system replacements have been made and it is safe to reenergize, contact your local Building Officials, as applicable to your city, for inspection.

■ □ Turn water back on if it has been shut-off. Run water for several minutes until it flows clearly and is free of debris before using for drinking and food preparation. In some cases, you may be required to boil water before using; you will be notified by authorities if there is a risk. See Page 20 for more information.

■ Make a list of damaged or lost items and include their purchase date and value with receipts, and place with the inventory you took prior to the flood. Take photographs of all items damaged by floodwaters.



- Your insurance adjuster may require you to save damaged property on-site to prepare an estimate. Before disposing of any damaged property contact your insurance agent. If required to keep on-site for an estimate, place these items outside of the structure and be sure to separate from undamaged items.
- Open, clean, decontaminate and thoroughly dry cavities in walls, floors and ceilings. Release any water or mud that has been trapped in walls, ceilings or floor cavities. Allow walls to dry from the inside out. Remove and dispose of all interior wall finishing materials and insulation. Most plaster, wallboard or paneling is not recoverable.
- Remove any moisture or debris. Scrub floors and woodwork within 48 hours using a stiff brush, water, detergent and disinfectant. Allow all wood to dry thoroughly.
- Pull up waterlogged carpet immediately. Remove the pad and throw away. When replacing carpets, clean and dry your floors thoroughly before re-carpeting. Attempt to save carpets or throw rugs only if they would be very expensive to replace and can be disinfected.
- Discard upholstered furniture if it has been exposed to water or contaminated material. Clean, rinse and disinfect wood furniture. Place wood furniture outside to dry slowly. Throw out mattresses and pillows.
- All appliances affected by floodwaters will need to be replaced per the National Electrical Code.
- Ductwork affected by flood water should be cleaned by a professional to avoid mold growth and future complications.
- Line-dry all articles of clothing before attempting to clean or treat them. After drying, brush off loose dirt and debris. Send “Dry Clean Only” items to a professional cleaner. Wash clothes several times in cold water. Add up to a cup of bleach per load of wash if it will not harm the clothing.
- Throw out any opened food or packaged foods that are not waterproof. Commercially canned foods can be salvaged if the labels are removed and the cans thoroughly washed with a bleach water mixture and rinsed in clean water. Home-canned foods require additional care; after the jars containing home-canned foods have been washed and disinfected, the food should be boiled for 10 minutes before using.
- Consult your City or County Garbage Guide for information on disposal guidelines or call your City or County Solid Waste Collection service provider. Business customers will need to consult their private waste hauler.

For more information on flood insurance, floodplain development, flood response and recovery and other related resources, visit [www.cityofdavenportiowa.com/flood](http://www.cityofdavenportiowa.com/flood) or [www.fema.gov/business/nfip](http://www.fema.gov/business/nfip).

## Potential Causes of Energy Emergencies

Effective emergency preparedness and energy assurance planning requires an understanding of the types of hazards that could potentially impact the City and the County. The City of Davenport and Scott County have participated in hazard mitigation planning through a partnership with the Bi-State Regional Commission and FEMA. The Scott County Multi-Jurisdictional Hazard Mitigation plan identifies hazards and analyzes the risk and probability of those hazards.

The following hazards were identified as priority hazards and are most relevant to energy assurance planning.

**ENERGY FAILURE.** An energy failure is an extended interruption of electric, petroleum or natural gas service, which could create a potential health problem for the population and possibly mass panic. Locally, the most common reason for an energy failure or disruption is due to severe weather.

**FLASH FLOOD.** A flash flood is a flood event occurring with little to no warning where water levels rise at an extremely fast rate. Flash flooding is an extremely dangerous form of flooding that can reach full peak in only a few minutes and allows little or no time for protective measures to be taken by those in its path. Flash flood waters move at very fast speeds and can roll boulders, tear out trees, scour channels, destroy buildings, and obliterate bridges. Flash flooding often results in higher loss of life, both human and animal, than slower developing river and stream flooding.

**HAILSTORM.** A hailstorm is an outgrowth of a severe thunderstorm in which balls or irregularly shaped lumps of ice greater than 0.75 inches in diameter fall with rain.

**RIVER FLOOD.** Floodwaters can be extremely dangerous. The force of six inches of swiftly moving water can knock people off their feet and two feet of water can float a car. Floods can be slow, or fast rising, but generally develop over a period of days. Flooding is a natural and generally expected phenomenon that occurs annually, usually restricted to specific streams, rivers, or watershed areas.

**SEVERE WINTER STORM.** Severe winter storms are weather conditions that affect day-to-day activities. These can include blizzard conditions, heavy snow, blowing snow, freezing rain, heavy sleet, and extreme cold. Extreme winter weather conditions can cause considerable damage, such as: immobilizing transportation systems, slowing or stopping the flow of vital supplies and disruptions of emergency and medical services, downing trees and power lines, and collapsing buildings. Historically, severe ice storms have caused total electric power losses over large areas of Iowa and rendered assistance unavailable to those in need due to impassable roads. Frigid temperatures and wind chills are dangerous to people and can also impact pets and livestock.





**THUNDERSTORM AND LIGHTNING.** Thunderstorm and lightening is atmospheric imbalance and turbulence resulting in heavy rains (which may cause flash flooding), winds reaching or exceeding 58 mph, tornadoes, or surface hail at least 0.75 inches in diameter. Thunderstorms are common in Iowa and can occur singly, in clusters, or in lines. Most thunderstorms produce only thunder, lightning, and rain. Severe storms however, can produce tornadoes, high straight-line winds above 58 mph, microbursts, lightning, hailstorms, and flooding. Lightning occurs with all thunderstorms even if the buildup of electricity isn't strong enough to send a bolt to the ground.

**TORNADO.** A tornado is a violent, destructive, rotating column of air taking the shape of a funnel-shaped cloud that progresses in a narrow, erratic path. Rotating wind speeds can exceed 300 mph and travel across the ground at average speeds of 25 to 30 mph.

**WINDSTORM.** A windstorm is extreme winds associated with severe winter storms, severe thunderstorms, downbursts, and very steep pressure gradients. Wind events that produce wind speeds in excess of 64 knots can produce (extensive) property damage, injuries, and/or death. These events can range from a few hundred feet in extent up to several tens of miles wide and several hundred miles long.

**CYBER TERRORISM.** Electronic attack using one computer system against another in order to intimidate people or disrupt other systems. Cyber terrorism may last from minutes to days depending upon the type of intrusion, disruption, or infection. Generally there are no direct effects on the built environment, but secondary effects may be felt depending upon the system being terrorized. Inadequate security can facilitate access to critical computer systems, allowing them to be used to conduct attacks.

**EXTREME HEAT TEMPERATURE.** Temperatures, including heat index, in excess of 100° F or three consecutive days of 90°+Fahrenheit. A heat advisory is issued when temperatures reach 105° F and a warning is issued at 115° F.

**PIPELINE TRANSPORTATION INCIDENT.** A pipeline transportation incident is described as a break in a pipeline creating a potential for an explosion or leak of a dangerous substance (oil, gas, etc.) possibly requiring evacuation. Scott County is served by many high pressure pipelines to residents and industries as well as several cross-country pipelines. An underground pipeline incident can be caused by environmental disruption, accidental damage, or sabotage. Incidents can range from a small slow leak that is not ignited to a large rupture in which the gas is ignited.

This Energy Emergency Preparedness Guide was made possible through contributions from the following agencies:



Davenport Police Department, Davenport Fire Department, Iowa Department of Public Health and the Centers for Disease Control and Prevention.

Acknowledgement: This material is based upon work supported by the Department of Energy under Award Number(s) DE-OE-0000416.

Disclaimer: This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.