



First responder utility safety bulletin

Winter 2020

Downed power lines: Your key response strategies

Downed power lines present both visible and hidden hazards. These lines can be energized even if they don't hum or spark, and even downed power lines that appear dead can become reenergized at any moment. Downed lines can also energize other objects, such as the ground or nearby puddles, utility poles, vehicles, fences, trees or foliage, ladders and siding.

Your key response strategies include staying out of electricity's path, approaching downed lines with caution and identifying any hidden or indirect electrical hazards at the incident scene.



First and foremost: Understand how electricity travels

It is the nature of electricity to seek the ground, and a downed power line provides electricity with a direct path to flow there. This creates a dangerous environment where electrical current may be present in the ground near a downed line; if the voltage is strong enough, electricity will spread out through the ground for some distance from the point of contact. Electricity may also travel from a downed power line to the ground through other objects.

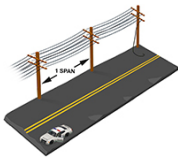
Your best defense against electrical contact in the vicinity of a downed power line is to always be alert for potential paths for electricity to travel to the ground, and to keep yourself, your tools and your equipment far away from these paths.

Approach with caution

Your personal protective equipment (PPE) will NOT protect you from electrical shock, so consider ALL wires energized and dangerous to contact at all times. If you know or even suspect that a power line is down, contact National Grid through your dispatcher immediately.

Park on the side of the street opposite the involved utility pole and at least one full span away from the span containing the downed line. (A span is the distance between two utility poles.) Establish an exclusion zone around downed power lines to keep the public at least one full pole span away as well.

Keep yourself and all vehicles and equipment **at least 30 feet away** from any downed distribution line and **at least 100 feet away** from downed transmission lines. These clearance distances are minimums; always use the maximum possible clearance.



Identify hidden hazards

Survey the incident scene for objects and materials that could be energized. Look for both obvious and hidden hazards, including the following:

- **Downed lines that may be contacting phone or cable lines or other utility wires.** If one power line is down, others may be as well, so stay alert for multiple hazards.
- **Power lines pinned by a vehicle, tree limb or other object.** Power lines have "coil memory." This means that if a downed line is pinned, when released it will recoil back toward where it is connected. Be sure to stay out of the path the wire may take.
- **Wire ends** that may be hidden by objects or foliage or submerged in puddles.
- **Downed power lines in contact with metal fences.** Be aware that a downed line can energize a metal fence for some distance from the incident scene.
- **Power lines in contact with aluminum ladders and siding.** Be especially alert for this hazard during structure fires.



If you must operate in the vicinity of a downed power line or other energized object, take small, shuffling steps with your feet close together and in contact with the ground at all times. Do not take large steps and do not allow your heels to pass your toes. This will help prevent electrical current in the ground from traveling into your legs.

Learn more electrical and gas utility response tips at firstresponder.ngridsafety.com.

National Grid's free **First Responder Utility Safety Training Program** has helped thousands of emergency response personnel learn to operate safely during incidents involving utility hazards. This program, which includes gas and electric certification trainings, covers natural gas pipelines and electric power lines as well as other facilities.

Downed power line precautions

Fence precautions

Look for downed power lines in contact with metal fences.

A downed line can energize a metal fence for some distance from the incident scene.



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Our certification programs are self-paced. Users who complete the gas and electric programs will earn personalized certificates of completion.

Keep yourself, your team and the public safe. Visit firstresponder.ngridsafety.com today to register and complete your utility safety training.



Know what's below.
811 before you dig.

Smell Gas. Act Fast.

To report emergencies, call 911 and National Grid immediately.

In case of gas emergencies:

Long Island and the Rockaways:
911 and 1-800-490-0045

Metro New York:

911 and 1-718-643-4050

Upstate New York:

911 and 1-800-892-2345

Massachusetts:

911 and 1-800-233-5325

Rhode Island:

911 and 1-800-640-1595

In case of electric emergencies:

Upstate New York:
911 and 1-800-867-5222

Massachusetts:

911 and 1-800-465-1212

Rhode Island:

911 and 1-800-465-1212

IMPORTANT TERMS AND CONDITIONS – PLEASE READ PRIOR TO USE.

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