

  
**STOP. LOOK. LIVE.**

# Working Safely Around Power Lines



# Respect the Power of Electricity

- **When you arrive at a job site, always identify power lines and high-voltage equipment**, and point them out to your coworkers.
- **Assume *all* overhead power lines are energized**, including service drops running between poles and buildings.
- **Check the site daily** because conditions may change.
- **Review your emergency plan** before work begins so everyone knows what to do in case of power line contact.



## For Tools & Equipment Other than Cranes & Derricks Used in Construction: Always Observe the 10-Foot Rule

- OSHA requires that you keep yourself and your equipment (other than cranes or derricks used in construction) **AT LEAST 10 feet away** from overhead power lines carrying up to 50 kilovolts (kV). If you are unsure of the voltage, contact your FirstEnergy electric company.
- Higher-voltage lines require greater clearances. Contact your FirstEnergy electric company for clearance information.
- If your job requires you to work closer than 10 feet from power lines, call your FirstEnergy electric company well in advance to make safety arrangements.
- Electrical safety distances given here are minimums.
- Always use the maximum possible distance, and clearly mark boundaries to keep workers and equipment the required distance away.

# Cranes & Derricks in Construction

- **Keep the crane boom and load at least 20 feet away** from lines up to 350 kV and **50 feet away** from lines over 350 kV and up to 1000 kV.
- Always assume the line is energized, and allow nothing closer unless you have confirmed with the utility owner/operator that the line has been de-energized.
- **As voltage increases, clearance distances also increase.** Contact your FirstEnergy electric company and consult the OSHA regulations at <https://www.osha.gov/> for specific clearance requirements and encroachment prevention precautions.
  - Once you have established the required clearance, clearly mark a boundary with tape, signs or barricades.
- **Whenever cranes or derricks are used in construction on your job site,** contact your FirstEnergy electric company well in advance so any necessary facility protection arrangements can be made.



# Use a Dedicated Spotter



- **Always use a dedicated spotter on the ground** to safely judge distances between hoisting equipment and power lines.
- **Crane and derrick operators must** maintain continuous contact with a dedicated spotter to comply with electric line clearance requirements.
- **The spotter's only responsibility should be power line safety.** Don't divide the spotter's attention with other tasks.

# Notify 811 before you dig

- **Dial 811 or use the online ticket-entry system, then wait the required time before you dig or move earth in any way.**
- The 811 service will arrange to have underground utilities marked so you can dig safely.
- **Before you call, mark your excavation route in white** so locators can easily identify and mark affected utilities.
- **If you don't notify 811, you risk hitting an underground power line.** You or your coworkers could be hurt or killed. You may be held liable for damages and repair costs.



**Know what's below.  
Call before you dig.**









*Always contact your state 811 center before digging and for the most current requirements.*

# Dig Safely

- **Talk to the property owner.** Ask about any private underground lines that may not belong to a utility. These would not be marked by the locator.
- **Respect the locator marks.** Maintain utility locator marks and follow them when digging.
- **Dig with care in the tolerance zone.** Do not power dig within this safety area. Hand dig or use other nonintrusive methods.
- Know the underground utility color code:

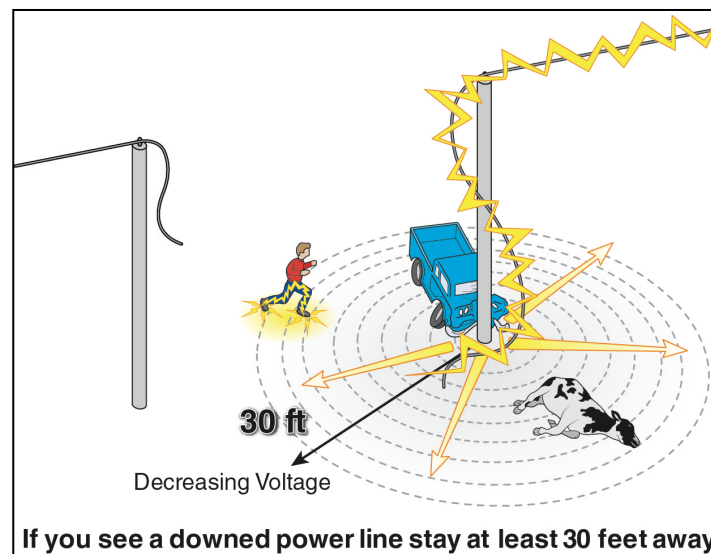
## AMERICAN PUBLIC WORKS ASSOCIATION COLOR CODE FOR LOCATOR MARKS



	Electric power lines
	Gas, oil, or steam pipelines
	Communications lines, cables, or conduit
	Potable water
	Reclaimed water, irrigation, and slurry lines
	Sewer and drain lines
	Temporary survey markings
	Your proposed excavation

# Protect Yourself from Step Potential

- **Step potential is a difference in voltage across the ground near an energized, grounded object.** It can be as dangerous and deadly as touching a live wire.
- **When a downed power line touches the ground,** electric current flows into the ground and spreads out in concentric circles of decreasing voltage from the point of contact. If you walk or stand with one foot in an area of higher voltage than the other, the step potential in the ground could cause you to be electrocuted. Electricity will use your legs as a path to equalize the voltage.
- **Always stay at least 30 feet away from downed power lines and anything they are touching.** This safety zone differs from the 10-foot rule for working near overhead power lines. We require a larger safety zone of 30 feet for fallen power lines to keep the public safe.
- **Keep others away.** BLOCK OFF the area at least 30 feet in all directions.
- **Call 911 and confirm that your dispatcher has notified your FirstEnergy electric company.**



# If Your Equipment Contacts a Power Line

- **Both the equipment and the line should be considered energized.**
- **Move the equipment away from the line** if you can do so safely.
- **Stay on the equipment until utility workers notify you it is safe to exit.**
- **Warn others to stay away** from the line and anything it is touching; also, the ground nearby may be energized.
- **Have someone call 911 immediately.**
- **If you must exit the equipment due to fire or other imminent danger:**
  - Do NOT touch the equipment and the ground at the same time. Jump clear, and land with your feet together.
  - Then shuffle at least 30 feet away, keeping your feet close together and on the ground at all times.
  - Do not return to the equipment.





# Electrical Safety Review

- Identify all power lines and electrical equipment upon arrival at a job site. Recheck the site daily.
- Keep yourself and all tools and equipment other than cranes or derricks used in construction **AT LEAST 10 feet away** from all overhead power lines carrying up to 50 kilovolts (kV).
- Cranes and derricks used in construction may require clearances greater than **10 feet** and encroachment prevention precautions. For specific requirements, consult [www.osha.gov](http://www.osha.gov).
- Build in extra safety distances.
- Always use a dedicated spotter.
- Notify the underground utility locator service at **811** before you dig.
- If a power line contact occurs, follow proper safety procedures and immediately call **911**.



# Underground Utility Locator Contact Information

## ■ To reach the underground utility locator service, dial 811 or use your state's online ticket-entry system:

- Pennsylvania: [www.pa1call.org](http://www.pa1call.org)
- New York: [digsafelynewyork.com](http://digsafelynewyork.com)
- Ohio: [oups.org](http://oups.org)
- Maryland: [www.missutility.net](http://www.missutility.net)
- New Jersey: [www.nj1-call.org](http://www.nj1-call.org)
- West Virginia: [wv811.com](http://wv811.com).

*Always contact your state 811 center before digging and for the most current requirements.*



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# Contact information

- **In case of emergency, call 911.**
- **For additional information, visit [www.firstenergycorp.com/worksafe](http://www.firstenergycorp.com/worksafe).**

# Thank You

**FirstEnergy**<sup>®</sup>

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Met-Ed • Penelec • Penn Power • Jersey Central Power & Light  
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