

Before darkening the room, offer a welcome and overview. Begin by introducing the program and its topic:

- Today's training session focuses on working safely around overhead and underground electric power lines. Following the procedures we'll cover here today will assist you in keeping yourself and your coworkers safe and on the job. On the other hand, if you cut corners where power lines are concerned, you put yourself and your coworkers at risk of serious injury and even death. Please pay careful attention and ask questions if you don't understand.

Darken the room.

Respect the Power of Electricity

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When you arrive at a job site, always identify power lines and high-voltage equipment and point them out to your coworkers. Contact Evergy at:

- 800-383-1183 for Kansas Central
- 888-471-5275 for Kansas Metro, Missouri Metro and Missouri West for power line assistance or questions.
- Assume **all** overhead power lines are energized, including service drops running between poles and buildings.
- Check the site daily, because conditions may change.



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Respect the power of electricity. Follow some simple best practices before starting work.

- When you arrive at a job site, always identify power lines and high-voltage equipment and point them out to your coworkers. Review proper safety procedures before beginning work. Contact Evergy at 800-383-1183 for Kansas Central OR 888-471-5275 for Kansas Metro, Missouri Metro and Missouri West for power line assistance or questions.
- Assume all overhead power lines are energized, including service drops running between poles and buildings. These wires may look insulated, but any coating you see is designed to protect the lines from weather, not to protect you from shock. Contact can still be deadly, so keep your distance.
- Check the site daily, because conditions may change. Always survey the site before beginning the day's work.

For Tools & Equipment Other Than Cranes & Derricks: Always Observe the 10-foot Rule 3

OSHA requires that you keep yourself and your equipment **AT LEAST 10 feet away** from overhead power lines.

- **Higher-voltage lines require greater clearances.** Contact Evergy for clearance information.
- **If your job requires you to work closer than 10 feet from power lines,** call Evergy 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.

For tools and equipment other than cranes and derricks used in construction, always observe the 10-foot rule. (Cranes and derricks on construction sites may require greater clearances, which we will discuss on the next slide.)

- OSHA requires that you keep yourself and your equipment at least 10 feet away from overhead power lines carrying up to 50 kV. This applies to all personnel, tools and equipment other than cranes and derricks used in construction. Be aware that wind can move long or tall equipment, so build in some extra distance in case of an unexpected shift.
- Higher-voltage lines require greater clearances. Contact Evergy for clearance information. Remember that your best practice is always to stay as far away as possible from power lines.
- If your job requires you to work closer than 10 feet from power lines, call Evergy well in advance to make safety arrangements. They will take steps to help you work safely. Cutting corners and failing to call could have life-threatening and livelihood-threatening consequences.
- Electrical safety distances given here are minimums.
- Always use the maximum possible distance, and clearly mark boundaries with tape, signs or barricades to keep workers and equipment the required distance away.

Cranes & Derricks in Construction

When cranes and derricks are used 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 greater than 350 kV but at or less than 1000 kV. Always assume the line is energized and allow nothing closer unless you have confirmed with Evergy that the line has been de-energized.

- **As voltage increases, clearance distances also increase.** Contact Evergy and consult the OSHA regulations at [osha.gov](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.
- **If you are in doubt about line voltages, clearances or how to work safely,** contact Evergy.

Cranes and derricks used in construction require different safety precautions than other equipment, due to an OSHA rule effective November 2010.

- Keep the crane boom and load at least 20 feet away from lines up to 350 kV and 50 feet away from lines greater than 350 kV but at or less than 1000 kV. Always assume the line is energized and allow nothing closer unless you have confirmed with Evergy that the line has been de-energized.
- As voltage increases, clearance distances also increase. Consult Evergy and the OSHA regulations at [osha.com](https://www.osha.com) for specific clearance requirements and encroachment prevention precautions.
 - Once you have established the required clearance, clearly mark an obvious boundary to keep workers and equipment the required distance away.
- If you are in doubt about line voltages, clearance requirements or how to work safely near power lines, contact Evergy well before work begins.

Use a Dedicated Spotter

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Always use a dedicated spotter on the ground to safely judge distances between hoisting equipment and power lines.

- **Crane and derrick operators:** 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.



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Use a dedicated spotter when working with heavy equipment around overhead lines.

- Always use a dedicated, qualified spotter on the ground to safely judge distances between hoisting equipment and power lines. From the ground, a spotter will have the clearest vantage point and be best able to judge distances correctly.
- 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. To be effective, the spotter must make spotting and clear communication with the equipment operator the top priorities.

If Heavy Equipment Contacts a Power Line

Both the equipment and the line should be considered energized.

- If you can do so safely, move the equipment away from the line.
- Stay on the equipment.
- Warn others to stay far away from the line and anything it is touching.
- Call 911 and Evergy immediately:
 - 800-383-1183 for Kansas Central
 - 888-471-5275 for Kansas Metro, Missouri Metro and Missouri West
- If fire or other danger forces you off:
 - Jump clear, keeping both feet together and without touching the equipment and the ground at the same time.
 - Land with your feet together and shuffle away, keeping your feet close together and on the ground at all times. Resist the temptation to run or take long steps because this puts you at risk for shock.
 - Do not return to the equipment.



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If heavy equipment contacts a power line, it's critical to follow proper safety procedures.

- Both the equipment and the line should be considered energized.
- If you can do so safely, move the equipment away from the line.
- Stay on the equipment. Anyone on the equipment is safe from shock as long as they stay put.
- Warn others to stay far away from the line and anything it is touching. In a power-line-contact situation, people on the ground are in the greatest danger of shock.
- Call 911 and Evergy immediately. Their personnel will respond quickly, switch off the power, and tell you when it is safe to leave or move the equipment. Wait for their instructions.
- If fire or other danger forces you off the equipment, follow the proper jump-off procedure.
 - Jump clear, keeping both feet together and without touching the equipment and the ground at the same time. If you touch the equipment and the ground at the same time, you could be shocked. Make every attempt to land on both feet at the same time.
 - Land with your feet together and shuffle away keeping your feet close together and on the ground at all times. Resist the temptation to run or take long steps because this puts you at risk for shock.
 - Do not return to the equipment.

Demonstrate the jump-off procedure.


Notify 811 Before You Dig 7

Dial 811 or place an online request, then wait the required time for utilities to locate and mark their lines: at least two full working days, not counting the date of your call, weekends and legal holidays.


- Kansasonecall.com in Kansas
- mo1call.com in Missouri

• Before you call, **WHITE LINE** your excavation route so locators can easily identify and mark affected utilities.

• If you don't notify 811 before digging you risk hitting a buried utility line. You could be injured or even killed. You may be held liable for any damages, as well as repairs and outage costs.



Know what's below.
811 before you dig.



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Notify 811 before you dig. Underground power lines can pose an unseen but very real danger.

- Dial 811 or place an online request, then wait the required time for utilities to locate and mark their lines: at least two full working days, not counting the date of your call or online ticket request, weekends and legal holidays. Be sure to leave adequate time in your job schedule. The service is free, but the costs of not calling can be very high. Building in a few extra days for the job costs less in the long run than spending months or years recovering physically and financially from a power-line accident. And remember, it's the law.
 - Kansasonecall.com in Kansas
 - mo1call.com in Missouri
- Before you call, white line your excavation route so locators can easily identify and mark affected utilities.
- If you don't notify 811 before digging you risk hitting a buried utility line. You could be injured or even killed. You may be held liable for any damages, as well as repairs and outage costs.

Dig Safely 8

Talk to the property owner. Ask about any private underground lines that may not belong to a utility and so would not be marked by the locator.

- **Respect the locator marks.** Maintain utility indicator marks and follow them when digging.
- **Dig with care.** Hand dig within **24 inches** of each side of the marks. **Use hand tools ONLY** within this safety zone.
- **Know the underground utility color code:**

AMERICAN PUBLIC WORKS ASSOCIATION COLOR CODE FOR LOCATOR MARKS

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

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Dig safely. After you call, the underground utility locator service will arrange for each utility to send someone out to mark underground lines.

- Talk to the property owner. Ask about any private underground lines that may not belong to a utility and so would not be marked by the locator.
- Respect the marks. Maintain utility locator marks and follow them when digging. Remember that calling for a locate is just the first step. This system works only if you follow the locator marks whenever you dig in the vicinity of underground utilities.
- Dig with care. Hand dig within 24 inches of each side of the marks. Use hand tools **ONLY** within this safety zone. Too many accidental utility contacts have occurred when someone dug with a backhoe instead of a shovel.
- Know the underground utility code. Utilities use these colors to mark their lines. Learn the code to stay safe.
 - Red: electric power lines
 - Yellow: gas, oil or steam pipelines
 - Orange: communications lines, cables or conduit
 - Blue: potable water
 - Purple: reclaimed water, irrigation and slurry lines
 - Green: sewers and drain lines
 - Pink: temporary survey markings
 - White: your proposed excavation

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 **AT LEAST 10 feet away** from *all* overhead power lines.
- Cranes and derricks used in construction may require clearances greater than 10 feet and encroachment prevention precautions.
- Build in extra safety distances.
- Always use a dedicated spotter.
- **Notify the underground utility locator service** by calling **811** or placing an online request at **least two full working days** before you dig.
- If a power line contact occurs, follow proper safety procedures and immediately call **911** and Evergy:
 - **800-383-1183** for Kansas Central
 - **888-471-5275** for Kansas Metro, Missouri Metro and Missouri West

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So let's review the key points of this presentation.

- Identify all power lines and electrical equipment upon arrival at a job site. Recheck the site daily. Always alert your coworkers to the presence of power lines and electrical equipment.
- Keep yourself and all tools and equipment (other than cranes and derricks used in construction) **AT LEAST 10 feet away** from all overhead power lines. Always assume that lines are energized.
- Cranes and derricks used in construction may require clearances greater than 10 feet and encroachment prevention precautions. Visit [osha.gov](https://www.osha.gov) for specific clearance requirements.
- Build in extra safety distances. Remember that wind can move equipment.
- Always use a dedicated spotter to monitor distances between equipment and overhead power lines.
- Notify the underground utility locator service by calling 811 or placing an online request at least two full working days before you dig. Respect the marks, and hand dig within 24 inches of marked utilities.
- If a power line contact occurs, follow proper safety procedures and immediately call 911 and Evergy.

Underground Utility Locator Contact Information ¹⁰

Contact your underground utility locator service by calling 811 or placing an online request at:

- Kansasonecall.com in Kansas
- mo1call.com in Missouri

Contact your underground utility locator service by calling 811 or placing an online request at:

- Kansasonecall.com in Kansas
- mo1call.com in Missouri

Contact Information

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- In case of emergency, immediately call **911** and Evergy:
 - **800-383-1183** for Kansas Central
 - **888-471-5275** for Kansas Metro, Missouri Metro & Missouri West
- For additional information, visit our website at **evergy-safety.com/contractor**.
- For power line assistance or questions, contact Evergy at:
 - **800-383-1183** for Kansas Central
 - **888-471-5275** for Kansas Metro, Missouri Metro and Missouri West

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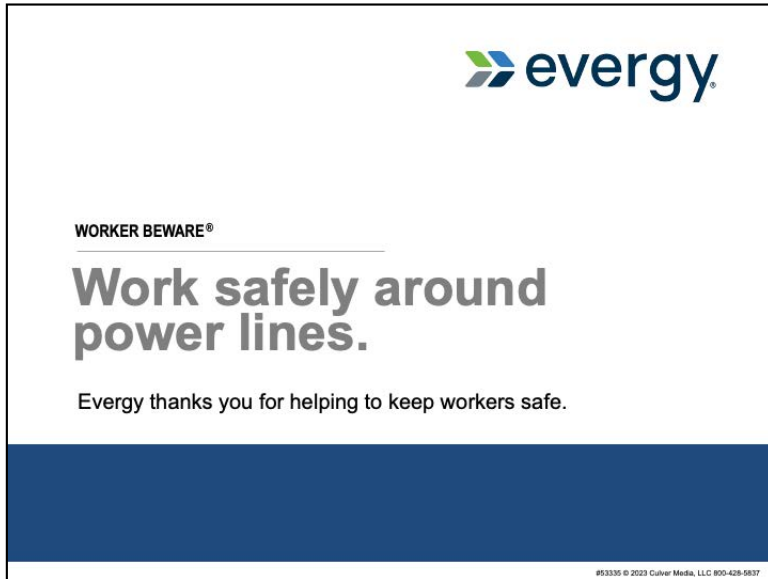
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In case of emergency, immediately **call 911** and Evergy at the numbers listed here.

For power line assistance or questions, contact Evergy at:

- **800-383-1183** for Kansas Central
- **888-471-5275** for Kansas Metro, Missouri Metro and Missouri West

For additional information, visit Evergy's website at **evergy-safety.com/contractor**.



The slide content is enclosed in a black border. At the top right is the Evergy logo, which consists of a stylized green and blue arrow pointing right, followed by the word "evergy" in a lowercase, sans-serif font. Below the logo, on the left side, is the text "WORKER BEWARE®" in a small, uppercase, sans-serif font. Underneath this is a horizontal line. Below the line is the main title "Work safely around power lines." in a large, bold, sans-serif font. Below the title is the text "Evergy thanks you for helping to keep workers safe." in a smaller, sans-serif font. At the bottom of the slide, there is a solid dark blue horizontal bar. In the bottom right corner of the slide, there is a small, faint copyright notice: "#53335 © 2023 Culver Media, LLC 800-426-5837".

Thank you for your attention.

Take questions and begin discussion.

The trainer's guide includes more detail about how electricity works, when to contact Evergy, what sort of materials and objects conduct electricity, and other information.

Discuss how this information conflicts with what your audience believed about electricity and ask how they may have put themselves or others at risk in the past. Ask what they would have done differently had they had this training before.

Evergy thanks you for helping to keep workers safe.