


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

- Today's safety 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, your coworkers and the public at risk of serious injury and even death. Please pay careful attention, and ask questions if you don't understand.

Darken the room and begin the presentation.


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. Contact Tampa Electric for power line assistance or questions at 1-813-635-1500.
- **Assume all overhead power lines are energized**, including service drops running between poles and buildings.
- **Power lines are not insulated.** Any coating you see will not protect you from being shocked. Death or injury can result from contact with any power line, even service drops.
- **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.



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

- When you arrive at a job site, always identify power lines, poles, guy wires and pad-mounted equipment, and point them out to your coworkers. Review proper safety procedures before beginning work. Contact Tampa Electric for power line assistance or questions at 1-813-635-1500.
- Assume all overhead power lines are energized, including service drops running between poles and buildings. These wires may look insulated, but they are not.
- You should assume any coating you see will not protect you from being shocked. Death or injury can result from contact with any power line, so keep your distance.
- Check the site daily because conditions may change. Always survey the site before beginning the day's work.
- Review your emergency plan before work begins so everyone knows what to do in case of power line contact.

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Always Observe the 10-foot Rule

- 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. Cranes and derricks on construction sites may require greater clearances, which we will discuss on the next slide. 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 Tampa Electric for clearance information.
- If your job requires you to work or position a scaffold closer than 10 feet from power lines, call Tampa Electric 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.

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Always observe the 10-foot rule.

- 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. Cranes and derricks on construction sites may require greater clearances, which we will discuss on the next slide. 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 Tampa Electric to confirm voltages and safe clearances at least three business days before you start working near power lines. Remember that your best practice is always to stay as far away as possible from power lines.
- If your job requires you to work or position a scaffold closer than 10 feet from power lines, call Tampa Electric 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

- **For all power lines, keep the crane boom and load at least 20 feet away.** If any part of the crane/derrick equipment, load line or load can get closer than 20 feet to the power line, in any direction, the employer shall meet the requirements of OSHA 29CFR 1926 1407 through 1411 to use the minimum clearance for cranes and derricks.
- **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 and grounded.
- **Tampa Electric can help you confirm voltages and safe clearances for cranes and derricks.** Contact them for safety guidance at least three business days before you start working near power lines.
- **Once safety clearances are confirmed, clearly mark boundaries** with tape, signs or barricades to keep workers and equipment the required distance away.



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

- For all power lines, keep the crane boom and load at least 20 feet away. If any part of the crane/derrick equipment, load line or load can get closer than 20 feet to the power line, in any direction, the employer shall meet the requirements of OSHA 29CFR 1926 1407 through 1411 to use the minimum clearance for cranes and derricks.
- 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 and grounded.
- Tampa Electric can help you confirm voltages and safe clearances for cranes and derricks. Contact them for safety guidance at least three business days before you start working near power lines.
- Once safety clearances are confirmed, clearly mark boundaries with tape, signs or barricades to keep workers and equipment the required distance away.

Use a Dedicated Spotter

- **Always use a dedicated, qualified spotter on the ground** to safely judge distances between hoisted loads and power lines.
- **Crane and derrick operators**, maintain continuous communication 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 hoisting loads around overhead lines.

- Always use a dedicated, qualified spotter on the ground to safely judge distances between hoisted loads and power lines. From the ground, the spotter will have the clearest vantage point and be best able to judge distances correctly.
- Crane and derrick operators must maintain continuous communication 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 priority.


Call Before You Dig

- **Call 811 or visit sunshine811.com to place a ticket request before you dig or move earth in any way.** This service will arrange to have underground power lines and other facilities marked for free so you can dig a safe distance away. Even small jobs require this.
- **Clearly describe your excavation site on your 811 request.** White lining or staking your dig area can help locators more easily identify and mark affected utilities.
- **Wait at least two full business days** for utilities to mark their lines, excluding the date of the request, weekends and holidays.
- **Failure to notify 811 can result in death or injury** from contacting underground power lines.
- **You may be held liable for any resulting damages,** as well as outage and repair costs.

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



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Underground power lines can pose an unseen but very real danger. By law, and for your safety, you must notify the 811 center before you dig.

- Call 811 or visit sunshine811.com to place a ticket request before you dig or move earth in any way. This service will arrange to have underground power lines and other facilities marked for free so you can dig a safe distance away. Even small jobs require this. 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.
- Clearly describe your excavation site on your 811 request. White lining or staking your dig area can help locators more easily identify and mark affected utilities.
- Wait at least two full business days for utilities to mark their lines, excluding the date of the request, weekends and holidays.
- Failure to notify 811 can result in death or injury from contacting underground power lines.
- You may be held liable for any resulting damages, as well as outage and repair costs.
- 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 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. Follow state laws for digging within the tolerance zone,** which extends 24 inches from the outer edge of either side of the exterior surface of a marked underground facility.
- **Know the underground utility color code:**

AMERICAN PUBLIC WORKS ASSOCIATION COLOR CODE FOR LOCATOR MARKS



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

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Dig safely. After you call, Sunshine 811 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. Follow state laws for digging within the “tolerance zone.” In Florida, this safety area extends 24 inches from the outer edge of either side of the exterior surface of a marked underground facility.
- 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

If Your Equipment Contacts a Power Line

- Both the equipment and the line should be considered energized.
- Have someone call 911 and Tampa Electric immediately at 1-877-588-1010.
- Remain on the equipment until Tampa Electric utility workers arrive and de-energize the line.
- Warn others to stay away.
- Move equipment away from the line only if it is safe to do so.
- Never touch or drive over downed power lines or anything they may be contacting.
- 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.
 - Then shuffle **at least 20 feet away**, keeping both feet together and on the ground at all times.
 - Do not return to the equipment.



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

- Have someone call 911 and Tampa Electric immediately at 1-877-588-1010. Their personnel will respond quickly and tell you when it is safe to leave or move the equipment. Wait for their instructions.
- Remain on the equipment until Tampa Electric utility workers arrive and de-energize the line.
- Warn others to stay away. Death or injury could result if someone on the ground makes contact with the equipment.
- Move equipment away from the line only if it is safe to do so.
- Never touch or drive over downed power lines or anything they may be contacting. Stay far away and call Tampa Electric.
- If you must leave the equipment because of fire or other danger, 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.
 - Then shuffle at least 20 feet away, keeping both feet 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.

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.
- Contact Tampa Electric to confirm voltages and safe clearances.
- Build in extra safety distances.
- Always use a dedicated spotter.
- Notify Sunshine 811 before you dig.
- If a power line contact occurs, follow proper safety procedures, and immediately call **911** and Tampa Electric.

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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.
- Tampa Electric can help you confirm voltages and safe clearances. Contact them for safety guidance at least three business days before you start working near power lines.
- 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 Sunshine 811 before you dig. Be sure to call at least two working days before any digging or other earth-moving operations, and respect the marks.
- If a power line contact occurs, follow proper safety procedures, and immediately call 911 and Tampa Electric.

Contact Information

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- In case of emergency, call Tampa Electric at **1-877-588-1010**.
- For additional information, visit our website at **tampa.e-smartworkers.com**.
- For power line assistance or questions, contact Tampa Electric at **1-813-635-1500**.

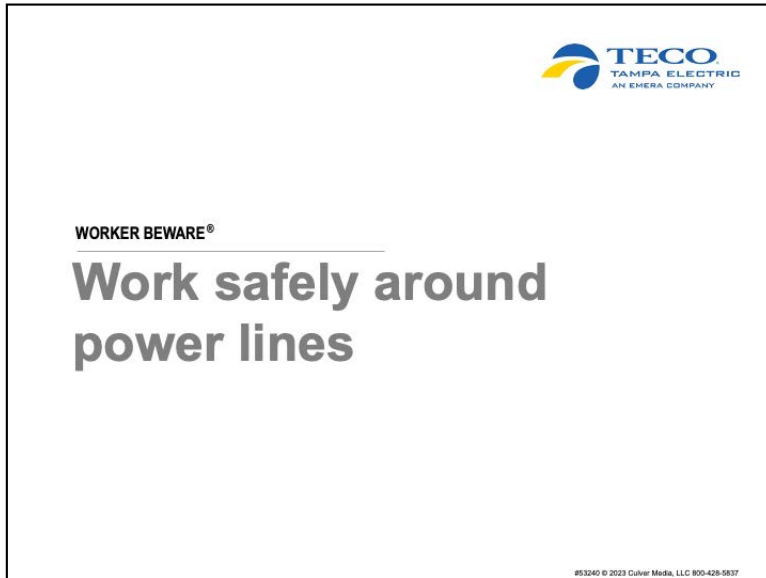
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Last but not least, here is some important contact information to keep handy:

- In case of emergency, call Tampa Electric at 1-877-588-1010.
- For additional information, visit Tampa Electric's website at tampa.e-smartworkers.com.
- For power line assistance or questions, contact Tampa Electric at 1-813-635-1500.



Thank you for your attention.

Take questions and begin discussion. If you are using the facilitator's guide, in it you will find discussion topics, an electrical safety quiz, and more information about the properties of electricity and the electric delivery system.

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 session before.

Tampa Electric thanks you for helping to keep workers safe.