

# Safety Tips for Contractors Working Near Power Lines



**Northeast  
Utilities**

Connecticut Light & Power  
Western Massachusetts Electric



**Look out for overhead and  
underground power lines!**



Safety-conscious contractors understand the dangers associated with performing work near power lines and take the necessary precautions. Never underestimate the power of electricity.

Before doing any work on the job site, be sure to conduct a thorough survey that identifies any power lines, utility poles, guy wires, service drops and other power-related equipment.

For safety's sake, every power line should be treated as though it's energized. Electric shock can cause injury or even death.

Please read this important information from Connecticut Light & Power (CL&P) and Western Massachusetts Electric (WMECo).

## Never Underestimate the Power of Electricity

The National Institute for Occupational Safety and Health estimates an average of 411 deaths per year occur on job sites as a result of electrical contact.



Brooklyn, Conn. – The truck pictured above was being driven with the bed in an elevated position. The bed struck an energized 23,000-volt power line.



## Overhead Hazards

If you are working on a hoisting/rigging, excavating, grading, or construction project within an electric line right-of-way, keep in mind the risks associated with overhead high-voltage power lines. Nonelectric utility crane operators must contact CL&P or WMECo to verify voltage.

Use tape, signs or barricades to keep yourself and your equipment a safe distance from overhead lines. Consult the chart on the right for Occupational Safety & Health Administration (OSHA) minimum safe working distances.

The following tips can help keep you safe while working within a right-of-way:

- > **Be aware of overhead power lines** and equipment, and maintain safe working distances from energized parts.
- > **Establish a clearance boundary** around power lines before work begins.
- > **Pay attention to line clearance distances** — the height above ground can vary, based on power load.
- > **Use a spotter** when operating heavy equipment.
- > **Call your local utility** if unsure about line voltage rating and safe work distances from power lines and equipment.
- > **Comply with all OSHA requirements** and applicable state and federal safety regulations, including OSHA’s crane standard.

### Occupational Safety & Health Administration (OSHA) Minimum Safe Working Distances from Exposed Energized Parts (including overhead lines) for Non-Qualified Personnel

Nominal Voltage Phase-to-Phase (V)	Minimum Working Distance in Feet
0 to 50,000	10
Over 50,000 to 200,000	15
Over 200,000 to 345,000	20

As voltage increases, the need for greater clearance from the power source also increases. Consult OSHA regulations for further workplace safety guidance: [www.osha.gov](http://www.osha.gov).

For assistance with determining voltage and safe working distances on the CL&P or WMECo electric system, contact the following:

**CL&P** Clearing Desk: 888.544.4826

**WMECo** Clearing Desk: 800.880.2433

## Underground Hazards

Practice safe excavations. Contractors must be aware of underground cables and utilities. The existence and locations of underground hazards can be determined by calling "Call Before You Dig" or "Dig Safe."

In Connecticut, contact Call Before You Dig at 811. In Massachusetts, contact Dig Safe at 811 or 1.888.DIG.SAFE (344.7233). It's the law. If you don't call and you hit an underground line, you could be hurt or killed. You may also be held liable for damages.



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## Transmission Counterpoise Wire Q&A

Contractors must be aware of underground wires called "counterpoise wires." The existence and locations of these wires can be determined by contacting CL&P or WMECo prior to starting work near transmission lines.

> Call **1.866.855.9059** or send an e-mail to **ROWInquiry@nu.com**

### Q. What is a counterpoise wire?

A. A counterpoise wire is a small-gauge wire (No. 2) that is generally buried at a depth of 18 to 24", and runs parallel to and along the centerline of the transmission line. It is used as a means of dissipating stray currents, such as lightning strikes.

### Q. What is the danger if a counterpoise wire is damaged or severed?

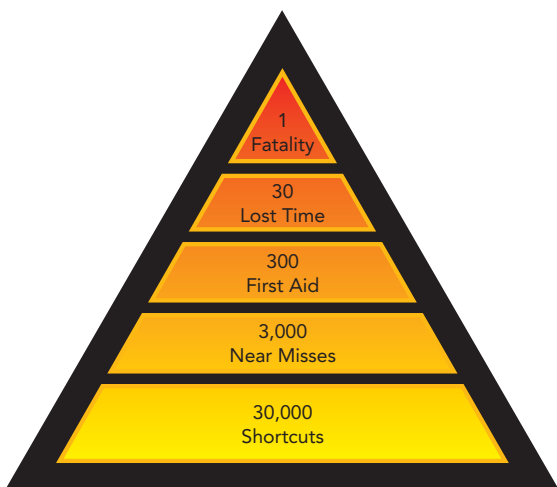
A. Counterpoise wires are not energized at power line voltage, but may be energized.

A severed counterpoise wire can also cause power reliability issues if they are too damaged to dissipate stray currents.

### Q. What should a contractor do if any type of wire is exposed or damaged?

A. Follow these steps to ensure your safety:

- > Do NOT attempt to reconnect the wire. Secure the site and maintain safe work distances. You must call the utility company.
- > Describe your location and problem to CL&P or WMECo, and request a Transmission Line Department employee for a site review.
- > Stake or flag the position of the break to facilitate a quick repair.
- > Please note that there will be no billing to the contractor or landowner for reconnection of severed counterpoise wire.



The safety triangle represents the ratio of shortcuts to near misses and accidents.

By eliminating shortcuts, the base of the triangle is reduced — resulting in fewer accidents.



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