

**FORTIS**  
**ALBERTA**  
our promise is your power

## Electrical Safety



**What you need to  
know to stay safe**

**MISSION**  **ZERO**  
Preventable  
Injuries



## **FortisAlberta brings electricity to homes, businesses and oilfields across Alberta**

We work with this dangerous product every day so we follow strict guidelines and never compromise safety.

We also urge the public to keep safety top-of-mind. Every day someone comes in contact with a power line, risking serious injury or death. While most incidents occur at work, you still need to keep safety in mind at home.

### **Seven is more than a lucky number...**

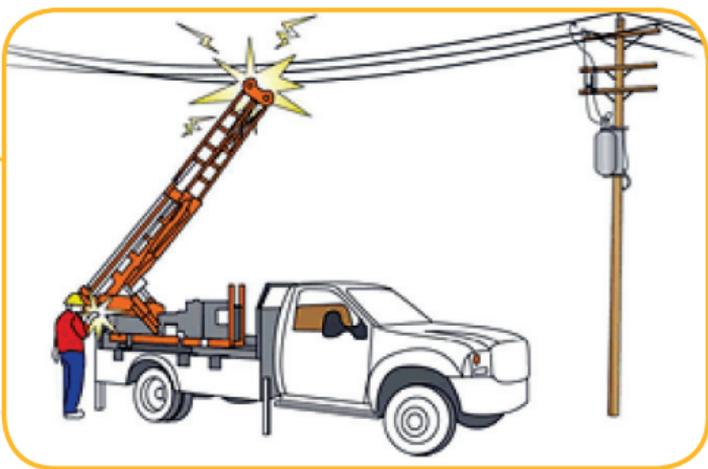
It's also the number of metres that you must stay away from any power line when parked and operating equipment. If you think you have to get closer, call us first at 310-WIRE (9473) or 1-855-333-9473.

### **If you come upon a downed power line...**

Stay at least 10 metres away and phone us right away at 310-WIRE (9473) or 1-855-333-9473. Make sure nobody else comes near. If the power line has come down on your equipment or vehicle, stay inside and call for help. If you must get out of the equipment or vehicle (in the case of fire) jump out with your feet together. Never touch the ground and the vehicle/equipment at the same time. Move away slowly by shuffling and keeping both feet close together, or by bunny hopping away slowly. Do this until you are at least 10 metres away from the vehicle/equipment.

**WHERE'S THE LINE?**  
POWER LINE SAFETY

**wherestheline.ca**



*Do not approach or touch anything, such as a vehicle, tree or fence that is in contact with a power line.*

Equipment and machinery is getting bigger all the time. Busy operators often have long days with tight timelines.

- **Be aware of the size of your equipment** – our power lines are designed and maintained to Alberta Electrical Utility Code standards. Depending on the location, power lines (includes guy wires) - can be as low as 3.7 metres from the ground.
- **Pile safely** – locate piles (dirt, gravel, etc) away from power lines and where kids can't climb too near. Remember the 7 metre rule!
- **Watch tree branches** – overgrown vegetation may be too close to overhead wires and make pruning dangerous. Don't take chances!
- **Call before you dig** – before doing any ground disturbance, contact Alberta One-Call at 1-800-242-3774 to locate any underground facilities. Underground excavation accounts for more than 20 per cent of power line contacts.
- **Plan your recreation – away from power lines.** FortisAlberta is aware of situations where a parachute and sailboat have each contacted a power line.

**Call us at 310-WIRE (9473)  
or 1-855-333-9473 with your  
electrical safety concerns or  
visit [www.fortisalberta.com](http://www.fortisalberta.com)**

Power lines are constructed according to Alberta Electric Utility Code Standards. The overhead power lines and communication lines are installed and maintained to permit the safe movement of equipment, buildings, or objects. There are two different approach distances to power lines that must be understood and maintained by workers and the general public:

1. distances while equipment is moving
2. distances while equipment is parked and operating near a power line.

The following chart highlights safe distances while passing under power and communication lines. The heights shown reflect the maximum height equipment, buildings or objects can be.

### Safe distances while passing under power lines

3.6 metres (11.8 feet)	areas normally accessible to pedestrians only
4.1 metres (13.5 feet)	driveways to residences or residential garages
4.2 metres (13.7 feet)	areas where agricultural equipment is normally used
4.2 metres (13.7 feet)	farm or yard entrances or farm field access roads
4.3 metres (14.1 feet)	right of way of underground pipelines
4.8 metres (15.7 feet)	lanes, alleys or entrances to commercial or industrial premises
5.3 metres (17.3 feet)	roads and highways
5.3 metres (17.3 feet)	crossing oilfield lease roads

If your equipment, buildings or objects exceed these heights in the above chart, you must contact your electrical service provider before proceeding.

## Power line contacts are hazardous

You cannot tell if a power line is energized just by looking at it. Even if the line is not live one moment, automatic switching equipment may restore power to the line without warning. The protective covering on some power lines is not insulation; it only protects the line from the weather. It won't protect you from electrical contact.

The electricity in a power line always seeks a path to the ground. This path might include a tree, a vehicle, or a fence. These objects then become energized. If you touch the energized line or object, the electricity can flow through your body. Keep away from any object that is in contact with a power line (minimum 10m).

Once electricity comes into contact with the ground or object, such as a vehicle or tree, they can become energized. The electricity then flows through the ground over a wide area, spreading out like ripples in a pool of water. The voltage in the ground is very high at the point of electrical contact. Farther away, the voltage drops off. With power lines of up to 25,000 volts, the voltage drops to zero at about 10 metres. However, if the ground is wet, it will be more than 10 metres from the point of contact to the point where the voltage drops to zero.

To stay safe inside equipment or a vehicle that is in contact with a power line (overhead and underground) – follow these steps:

- If possible, move the equipment or vehicle away to break contact with the power line (min. 10m away).
- If the equipment or vehicle cannot be moved, call 911 and the power company. **STAY INSIDE** the equipment or vehicle until the power company and emergency crews arrive onsite and let you know the power line has been de-energized. If anyone approaches while you are waiting, open the window and tell them to keep away (min. 10m).
- If you must get out of the equipment or vehicle (in the case of fire) jump out with your feet together. Never touch the ground and the vehicle/ equipment at the same time. Move away slowly by shuffling and keeping both feet close together, or by bunny

hopping away slowly. Do this until you are at least 10 metres away from the vehicle/equipment.

### When to be extra careful...

Our research also reveals that most of these incidents occurred at the beginning of the week either just before or after lunch, between Monday and Wednesday from 10 a.m. to 2 p.m.

### Make sure you'll get home safely...

- Take responsibility for your own safety
- Always make a safe work plan, and ask yourself, **"Where's the Line?"**
- Know your proximity to overhead power lines when parked or operating equipment: remember to keep a minimum distance of 7 metres away . If you have to get closer, call FortisAlberta 310-WIRE (9473) or 1-855-333-9473 before you encroach on the power lines so we can assist you.

### Most incidents occur at work...

Most of the incidents occur in Alberta's busiest industries – oil and gas, construction, transportation and agriculture. Below is a list of the types of equipment that most often contact overhead and underground power lines:

- Trackhoes
- Gravel trucks
- Backhoes
- Crane trucks
- Delivery trucks and high load moves
- Farm equipment (tractors, combines, air seeders, sprayers, grain augers)



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For electrical emergencies  
call us at **310-WIRE (9473)**  
or **1-855-333-9473**