



### SAFETY FOR FIRST RESPONDERS AROUND FALLEN POWER LINES

Power lines may come down as a result of windstorms, lightning, ice buildup and motor vehicle accidents. Police, ambulance attendants and firefighters called to the scene may find power lines lying on the ground or touching a tree or vehicle.

On arrival, first responders must always assume that a fallen line is energized. They must also be aware that the ground surrounding the power line may be energized and dangerous.



### WHEN IT IS SAFE TO APPROACH THE SCENE

FortisAlberta or another power company in the area must make sure the power system has been de-energized and will not automatically reconnect. If the power company does not have a representative at the scene, contact the company by phone.

Unless the power company confirms that it is safe to approach the downed power line, do not enter the hazardous area. Do not let anyone approach within **10 metres or more**. Be aware that if the ground is wet or the power line is over 60,000 volts, it will be more than 10 metres from the point of contact to the point where the voltage drops to zero.



### BEST PRACTICE WHEN FIGHTING ELECTRICAL FIRES

Never use a solid stream of water to fight an electrical fire or any fires in close proximity to power lines, especially when lines are down. In addition, never attempt to disconnect an electrical service to fight a fire. This increases the danger to everyone who may be on-site and could result in additional fire-risk.

Never cut any service wires. Instead, the best point of service disruption is to turn off power to the main circuit breaker, if available and safe to do so. Never attempt to remove electrical meters. This is extremely dangerous and could result in serious injury or death.



## DOWNED LINES ARE HAZARDOUS

You can't tell if a downed line is energized by appearance. Even if the line is not live, power may be restored without warning. The covering on the lines protects them from the weather. **It won't protect you.** Electricity seeks a path to the ground, including trees or vehicles. These objects then become energized. If you touch the energized line or object, electricity will flow through you. Once electricity reaches the ground, the ground becomes energized. The electricity flows through the ground over a wide area, spreading like ripples in a pool of water. The voltage in the ground is very high at the point of contact. Farther away, the voltage drops off. With power lines of up to 60,000 volts, the voltage drops to zero at about 10 metres. If the ground at the contact area is wet, it will be **more than 10 metres** from the point of contact to the point where the voltage drops to zero.

## SAFE WORK PRACTICES FOR FIRST RESPONDERS

- Treat downed lines and underground transformers as energized.
- When you arrive at the scene, park your vehicle well away from any downed lines. Before you exit your vehicle at night, shine a flashlight through the window to make sure you are not near a downed power line.
- Stop traffic and keep people away. Pedestrians or motorists may not see power lines that are on the ground.
- Secure the area and keep others near the scene back **at least 10 metres** or as far away as possible.
- You can't help anyone if you are injured. Never touch anything that is in contact with a downed power line, including people, vehicles, trees, puddles or bodies of water.
- Call the power company immediately. They can ensure power will not be restored without warning. A crew with proper training and equipment will arrive as soon as possible.
- Only the power company can confirm a scene is safe to approach. They will confirm that the system has been de-energized and that power will not automatically be restored.
- Guardrails and metallic fences are excellent conductors of electricity. Beware of their proximity to fallen lines.



## STAYING SAFE INSIDE A VEHICLE THAT IS IN CONTACT WITH A POWER LINE (OVERHEAD OR UNDERGROUND)

- If possible, move the vehicle away to break contact with the power line.
- If the vehicle cannot be moved, stay inside until emergency crews arrive.
- If anyone approaches the vehicle, open the window and tell them to keep at **least 10 metres away**.
- If there is a fire and you must leave the vehicle, jump out with your feet together. Never touch the ground and the vehicle at the same time. Move away slowly by shuffling and keeping both feet close together, or by slowly bunny hopping with both feet together. Do this for a minimum distance of 10 metres or more if the voltage is over 60,000 volts or the ground is wet.