Electrical Effects
Occasionally landowners express concern about the electrical effects of transmission lines. The following questions cover the most common concerns that landowners express to ATCO Electric regarding electrical effects from transmission lines and facilities.

Should I worry about getting an electrical shock from a transmission line?
You will not get a harmful shock from a transmission line unless you or your equipment comes into contact with, or is very close to, the actual conductor wires.

Occasionally you might experience a slightly annoying, but ultimately harmless, electrical sensation if you touch an ungrounded metal object near a high voltage transmission line. This sensation is similar to what you may experience in your own home after walking across a carpet and touching a door knob – commonly referred to as a static shock or static electricity.

Typical ungrounded objects include wire fences with dry wood posts, large vehicles with old rubber tires and metal buildings. To eliminate these mild shocks, make sure metal objects and fences are properly grounded. During the construction of a new line, ATCO Electric will do this. You can always contact us about proper grounding methods.

Is it safe to drive or park a vehicle near a transmission line?
Most vehicles today are naturally grounded, because their tires are made of semiconducting carbon black. A mild electric charge can build up on a vehicle with old rubber tires because they generally do not conduct electric currents. Such charges are annoying, but harmless. If your vehicle tends to develop a mild electric charge, it can be grounded by attaching a chain that is long enough to touch the ground.

There have been no reported cases of fires caused by static sparks induced by transmission lines. However, the refuelling of your vehicles under lines could pose a problem in the unlikely event that certain conditions (including hot, still weather and a completely insulated vehicle) existed all at the same time. As a precaution, never refuel your vehicle under a transmission line.

Long lengths of ungrounded pipe parallel to, and near, a power line can build up an induced hazardous electrical charge.

Will a transmission line endanger my property in a lightning storm?
Transmission lines do not attract distant lightning. When a storm is directly overhead, they may actually draw lightning away from nearby trees, buildings, animals or people.

Since lightning is attracted to the highest available object, in rural areas the transmission lines are often struck. However, because these structures are well grounded, the potential danger is far less than if the lightning were to strike a tree or building.

Will transmission lines affect my cell phone or wireless internet system?
A transmission line should not cause reception problems for cell phone or wireless internet.

Will transmission lines affect my radio or TV reception?
Transmission lines normally do not affect radio or television reception. However, under certain circumstances, there may be some static interference on AM radio and analog TV. FM radio and cable TV are not impacted by static interference.

ATCO Electric observes Canadian and Alberta electrical codes and standards which should minimize such effects.

Despite these efforts, if some reception problems occur ATCO Electric will make every reasonable effort to correct any interference caused by its facilities. Sometimes it may be a matter as simple as tightening a nut or bolt.

However, if you have poor reception now without the presence of a transmission line, the company cannot improve your reception after a transmission line is built. ATCO Electric, in consultation with the federal department for communications (Industry Canada), will work to address radio and TV reception complaints. Industry Canada stipulates that within six months of the line being energized, radio noise levels are to be measured, and that they must fall within set limits.

Will transmission lines affect my GPS or satellite TV?
Interference generated by transmission lines have very little effect on satellite television and GPS. Any effects quickly dissipate with distance from the line. With GPS in particular, the multiple satellites minimize the potential to lose a signal.

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The TV industry is moving from analog to digital signal. Is there any potential impact on TV interference with this change? With a digital television signal the interference from power lines would be reduced. The digital television channels would operate at frequencies between 470 MHz and 805.75 MHz, which is much higher than the range used by existing analog television stations.

While transmission lines are not expected to cause television interference for the existing analog or future digital television signals, ATCO Electric would conduct measurements to ensure the line complies with interference guidelines.

Safety First. Always
You should always be careful and follow common sense rules of safety when near any type of power line.

Some of the hazards you should avoid in the home, around the farm or on the job are discussed in a variety of materials available from ATCO Electric at no charge.

Look for safety tips on our website: www.atcoelectric.com