

Farming and Transmission Lines



Farming

With more than 85 years of experience working in Alberta, ATCO Electric has deep roots in this province. We are steadfastly committed to Albertans, our communities, and our environment. Our *Crop Protection Plan*, environmental impact reduction strategies, *Avian Protection Plan*, and *Historical & Archaeological Resource Protection Plan* are a few examples of this commitment.

Homes, farms, industry, government and businesses all rely on having a reliable electric system that provides power where and when it is needed. To ensure Albertans have access to the electricity they need, transmission lines are required to transport the electricity from where it is generated to our farms, homes or businesses. This means transmission lines traversing Alberta's rural landscape sometimes have to be located on farmland.

This brochure provides information and answers to common questions about farming and transmission lines. **If you have additional questions, or would like more information, please contact us (see contact information on back page).**

Transmission Line Location

Q: Will you locate the transmission lines on cultivated or pasture lands?

A: To minimize any disturbance to farming operations, **ATCO Electric's transmission structures are usually located along quarter or section lines.** Sometimes it is necessary to move the structures onto the cultivated area or pasture lands in order to avoid residences, well sites or pipelines, or

at the landholder's request. In that case, we try to position transmission structures where they will have the least impact on farming operations. In these cases, some maneuvering around structures may be necessary. Landowners are compensated for the loss of use and adverse effects associated with hosting transmission structures on their land. Payments are based on the type and location of structures, and are reviewed every five years.

Farm Equipment, Crops & Operations

Q: Can I operate or move farm equipment around and under transmission lines and structures?

A: **You should be able to operate and move your farm equipment under and around the transmission wires and structures without any concern.** For your own safety, equipment should be no higher than 4.88 metres (16 feet). Most farm equipment meets this height restriction, but if you have any questions or concerns about your equipment or loads, please contact us (see contact information on back page).

Q: Will there be any damage to my crops or any interference with farm operations or harvesting?

A: **ATCO Electric will make every reasonable effort to coordinate our activities with farming and livestock operations to minimize inconveniences.** Depending on the time of year that construction takes place, there may be some temporary interference with some farming activity during construction. After construction, you will be able to farm the right-of-way as before.

To avoid the crop damage that can occur from the transfer of soil-borne diseases like clubroot, ATCO Electric uses crop protection cleaning measures (see back page for information on ATCO Electric's Crop Protection Plan).

Weed & Vegetation Control

Q: Do you spray herbicides on the right-of-way?

A: **ATCO Electric does not apply herbicide without permission from the landholder.** ATCO Electric recognizes that weed control is a shared responsibility and actively works with landholders to come up with mutually agreeable solutions. Control of hazardous vegetation is required to ensure the safe operation of the transmission line.

On cultivated or grazing land, after a transmission line has been constructed, weed control under and around the structures is the responsibility of the landholder. Landholders are compensated for any additional costs associated with the weed control in right-of-way agreements and our compensation program. This provides landholders with flexibility and control in the type and timing of the weed control method they would like to implement.

During construction of a transmission line, **ATCO Electric takes a number of steps to avoid the spread of weeds**

(see *Crop Protection on the back page for more information*). After construction, we work with landholders to establish a vegetative cover that is compatible with the surrounding land use. Re-establishing a vegetative cover will reduce erosion and the colonization of weeds. After the vegetative cover is established, and in consultation with the landholder, we undertake a noxious weed control program for the following growing season. Ongoing weed control is the responsibility of the landholder.

On land that is not cultivated or grazed, if vegetation management is required, either mechanical or chemical vegetation control is applied. Typically, this type of vegetation control takes place on Crown land. In the event that vegetation control is required on private land, landholders are consulted to determine a mutually agreeable solution. Right-of-way and compensation agreement payments for uncultivated lands will generally reflect ATCO Electric's responsibility for vegetation control in these areas.



Livestock & Fences

Q: Will nearby wire fences and metal buildings be energized by transmission lines?

A: Electrical charges will not normally build up on most buildings close to transmission lines because the plumbing, wiring or the frame usually grounds the buildings. If necessary, ATCO Electric will ground any metal buildings and wire fences that could store an electrical charge when constructing new transmission lines.

Q: Will any fences be removed? If so, will my livestock be affected?

A: In some cases, ATCO Electric may have to temporarily remove and reinstall a fence or gate, or relocate granaries or other structures. To contain livestock, permanent gates may be installed at right-of-way access

points and temporary fences put up at the edge of the right-of-way during construction. ATCO Electric will work with landholders to minimize any disruptions.

Q: Do Electric and Magnetic Fields (EMF) from transmission lines affect the health of livestock?

A: EMF associated with electric power lines are similar to the low level electric and magnetic fields that we are exposed to on a daily basis. Because the use of electricity is so common in our lives, researchers have been studying exposure to EMF since the 1970s. **Studies show exposure to EMF from power lines is not a demonstrated cause of any adverse health effects in livestock.** Research into the possible effects of EMF on smaller animals, including birds, reveals similar results.

Honey Bees

Q: Does EMF from transmission lines affect production by honey bees?

A: The research to date indicates that EMF associated with AC power lines have **minimal to no detected effects on hives located outside of the right-of-way.** Studies have shown that very high magnetic fields could potentially interfere with the internal navigation system used by bees to guide their travels. This type of impact would require magnetic field levels far greater than those associated with 144-kV and 240-kV AC transmission lines.

Bees that live in artificial hives located directly under AC lines, appear to receive small but frequent electric shocks from currents induced by the lines. Shielding hives with a grounded wire plate or moving them further away from the transmission line (outside of the right-of-way) will eliminate these effects, and the bees will carry on their normal activities. If necessary, ATCO Electric will shield hives with a grounded wire plate or move them outside of the right-of-way to eliminate these effects.

CONTACT INFORMATION

If you have any questions or require more information, please contact us.

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Crop Protection

At ATCO Electric, we understand that your cropland is your livelihood. We know that protecting your crops from soil-borne disease is a top priority. That's why we make every reasonable effort to contact landholders and follow existing land access agreements before entering cropland. We also have **standardized, comprehensive equipment cleaning practices in place.**

Our equipment cleaning practices have been adopted from the Government of Alberta's *Clubroot Management Plan*. The objective of this plan is to minimize or restrict the movement of soil material containing clubroot spores from an infected field.

Three levels of cleaning are identified: mechanical cleaning, washing and disinfecting – each providing a progressively more intensive level of cleaning that may be applied given a specific circumstance.

Our standard practice before entering cropland is mechanical cleaning. We remove dust, soil and plant materials from our equipment by mechanical means such as brushes, brooms, shovel or air compressors. Our other practices are equipment washing using hot water or steam, and equipment disinfecting typically using a one to two percent bleach-water solution/misting. In determining any additional level of cleaning, **together with the landowner**, we will assess a number of factors including: whether there is a confirmed presence of crop disease on the site or in the area, how your land is being used and its geographic location, including water use and conservation requirements, your own circumstances and the nature of your request, including current landholder equipment.

For more information on ATCO Electric's *Crop Protection Plan*, *Historical & Archaeological Resource Protection Plan*, *Avian Protection Plan*, environmental impact reduction strategies and other information - visit www.atcoelectric.com