

# Build Smart, Build Safe

## A Guide to Required Clearances from Overhead Power Lines



### Planning a new building, structure or renovation near overhead electrical lines?

Remember, the only way to build smart is to *build safe*.

To protect public safety, ensure a reliable supply of electricity, and adhere to provincial laws and regulations, Hydro Ottawa has defined minimum clearance requirements between buildings/structures and overhead electrical power lines. Architects, engineers, developers, planners, contractors, building owners, and all others involved in the planning, design or construction of buildings/structures must ensure safe clearances. If you plan on building anything near overhead power lines, you must follow important safety standards.

### Hydro Ottawa's Clearance Standards

In keeping with regulations and codes, Hydro Ottawa requires two types of clearances:

- The **working clearance requirement** states that no person or the operation of equipment may come within three (3) metres of overhead power lines. Any person operating the equipment must have the necessary training and qualifications.
- The **permanent structure clearance** applies to all permanent structures including awnings, balconies, flag posts, and signs. It states that no part of a structure can be constructed within five (5) metres of an overhead power line (conductor). This five (5) metre clearance requirement is based on "conductor swing" or the greatest horizontal displacement of a conductor from its position at rest. In other words, this clearance takes into account the three (3) metre working clearance requirement and the two (2) metres that an overhead power line can potentially swing in any direction.

These clearances apply to all overhead power lines over 750V (considered medium voltage). Equipment and lines that have less than 750V require smaller clearances, so long as they do not infringe on clearances for the higher voltage lines.

However, the electrical equipment on poles changes over time, since there is ongoing maintenance, repair and expansion. As such, these clearances generally apply to all overhead power lines.

### Purpose of Clearance Requirements

To make sure that the same clearances are consistently followed across our service area, Hydro Ottawa established standard "OLS0002" for any permanent structure clearance near overhead power lines. This standard is based on the provincial laws and regulations that preserve public and worker safety.

These requirements keep people safe by reducing the risk that someone may come into contact with electrified distribution system components.

Clearance requirements also ensure that Hydro Ottawa employees have the space required to safely inspect, maintain and upgrade the overhead distribution system.

Additionally, they help to prevent damage or interference with electrical equipment. Hydro Ottawa is required to certify to the Electrical Safety Authority (ESA) on an annual basis that these clearances have been maintained.

### Clearances and Easements

Clearances also apply within easement areas. Some properties may contain a Hydro Ottawa easement which is a legal right of access to a portion of properties for the purpose of installing and maintaining our distribution system.

### Electrical Service Requests and Layout

As you plan your project, consider the electrical work needed to do the work. Once you have a plan, let us know by completing a Service Request form online at [hydroottawa.com/service-request](http://hydroottawa.com/service-request), at least three to four weeks before you begin.

After we've reviewed your service request, we will provide you with a "Customer Layout" which is an estimate that will include information about the project and any applicable fees.

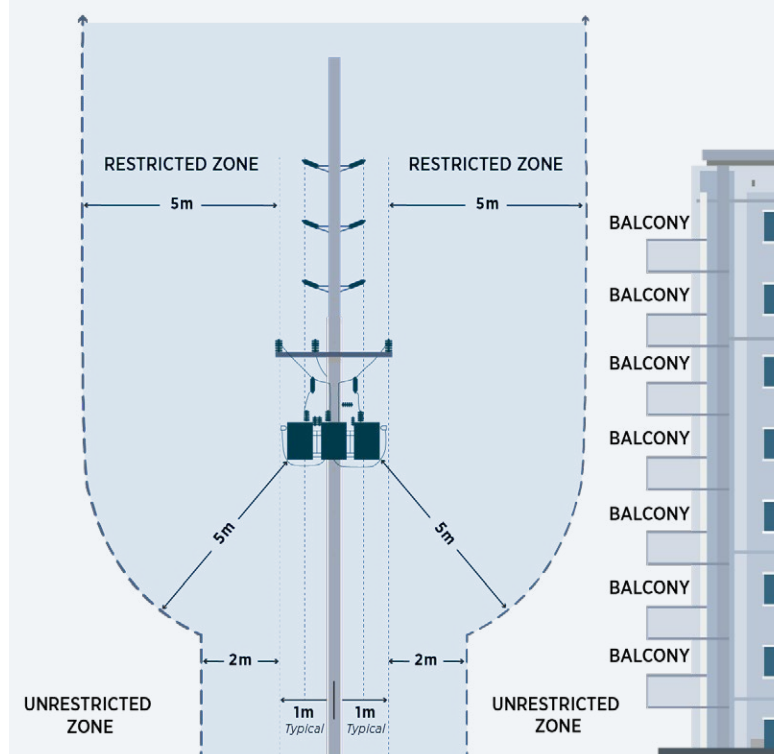
### Establishment of Hydro Ottawa's Standard for Clearance Requirements

Hydro Ottawa's standard is based on provincial codes and regulations.

Copies of these codes or regulations are available from local government offices and some are available online at [ontario.ca/laws](http://ontario.ca/laws).

Several publications outlining these clearance requirements and describing their implications can also be downloaded, free of charge, from the ESA's website at [esasafe.com](http://esasafe.com).

This diagram illustrates Hydro Ottawa's clearance standards and its requirements.



**Maximum swing:** The greatest horizontal displacement of any point on a power line, from its position at rest. In other words, the maximum swing is the distance a wire strung on a pole can potentially swing in any direction.

#### Medium-voltage (>750 volts) line clearances

Clearance from power line (radial to conductor)	Five (5) metres (5000 mm)
Clearance along pole line (from a vertical line drawn from power line to ground level)	Two (2) meters (2000 mm)

## Contact Us

If you have a comment, question or would like more information including information about the ownership or voltage of overhead lines, you may reach us by one of the methods below:

### Customer Service

Telephone: 613-738-6400

- Monday to Friday, from 8:00 a.m. to 8:00 p.m.
- Saturday, from 9:00 a.m. to 3:00 p.m. (excluding statutory holidays)

Online: [hydroottawa.com/contact](http://hydroottawa.com/contact)

Visit [hydroottawa.com/clearances](http://hydroottawa.com/clearances) for more information on Hydro Ottawa's standard "OLS0002", our Developer's Guide, and other safety codes and guidelines.