

HYDRO ONE JOINT USE GUIDE

TELECOMMUNICATIONS ATTACHMENTS

Table of Contents

Introduction	3
Permit Applications	3
Joint Use-Related Requests (other than Permit Applications)	7
Key Operational-Related Provisions in the A&OP, CAG or Schedule A	9
Key Operational Timelines	18
Division of Costs	21
References	23
List of Appendices	24
Distribution Lines Contact List	24

Introduction

This document is intended to provide helpful information to entities that have signed (each, a “**JU Partner**”) or are thinking of signing an Agreement for Licensed Occupancy of Power Utility Distribution Poles (“**JU Agreement**”) with Hydro One Networks Inc. (“**Hydro One**”). The document outlines information regarding joint use permit applications and other joint-use related requests that may be submitted to Hydro One, as well as a summary of some of the key operational-related provisions found in the Administrative & Operating Practices (“**A&OP**”), Contract Administration Guide (“**CAG**”) or Schedule A (as the case may be) that forms part of the JU Agreement.

This document is for informational purposes only and is not intended to, and does not, replace, supersede or override any signed JU Agreement. This document may be subject to changes/updates and the JU Partner is encouraged to check with Hydro One for the latest version of the document.

Please do not hesitate to contact the Joint Use team at ExternalJointUse@HydroOne.com if you have any questions on this document or on Hydro One joint use processes.

Permit Applications

Hydro One’s permit application requirements are consistent with the Guideline for Third Party Attachments published by the Electrical Safety Authority (“**ESA**”) in 2005. The Guideline can be found by following the link below:

http://www.esasafe.com/assets/files/esaeds/pdf/Utilities/Guideline_for_Third_Party_Attachments.pdf

As the pole owner, Hydro One uses Hydro One’s standard designs to determine the appropriate pole size and class and to verify clearances.

Unless otherwise specified by Hydro One Personnel, any time a JU Partner applies to place its attachments or alter the number, size or nature of its attachments on Hydro One’s poles, it must including the following information:

- **Key Map/Permit Sketch** – Map of the area depicting all poles to be covered by the permits and the location and size of existing and proposed new attachments
- **Standard Designs** – These include standard design drawings, standard design specifications, technical specifications, and construction standards that have been reviewed and approved by a P.Eng. or the ESA for use by Hydro One or the JU Partner and that Hydro One or the JU Partner has authorized for use on an ongoing basis for the construction, operation, and maintenance of the JU Partner’s plant in relation to Hydro One’s distribution system
- **Work Instructions** – The assembly of standard designs as defined per the ESA Technical Guideline for Section 7. Approval of Plans, Drawings and Specifications for Installation Work (“**ESA Technical Guideline for the Approval of Designs**”) into drawings and instructions prepared by a competent person, as defined in the ESA Technical Guideline for the Approval of Designs, in accordance with Hydro One’s or the JU Partner’s job planning process used for the installation of the JU Partner’s new or modified equipment on Hydro One’s poles
- **Certificate of Approval** – The certificate issued by a P.Eng. or ESA confirming that a plan or standard design as defined per the ESA Technical Guideline for the Approval of Designs meets the safety standards set out in section 4 of O. Reg. 22/04 and provided to Hydro One

A certificate of approval can be the following per the ESA Technical Guideline for the Approval of Designs:

5. the proposed and existing (if applicable) anchoring and guying including attachment height and anchor-to-pole lead length;
6. the proposed type of cable to be overlashed to an existing support strand and an indication of the owner of that strand and any other companies/attachers already overlashed (if applicable);
7. the proposed bonding locations;
8. the proposed dips and/or risers (if applicable);
9. the make-ready work anticipated to Hydro One poles and other affected third party plant;
10. the proposed or existing attachments to the pole (e.g., telecommunications cables, power supplies, municipal attachments, distribution electricity equipment etc.);
11. the proposed in-span features and equipment such as slack storage and splice can locations;
12. sidewalks, driveways, curbs, trees, buildings, bridges, rivers, railroads, other utilities if they add clarity to specific issues;
13. clear identification of all poles, including Hydro One barcodes (i.e. barcode ID) and pole ownership;
14. for wireless attachments, a listing of all Hydro One poles and corresponding barcode IDs to which the JU Partner seeks to place its attachment must be provided together with the following:
 - an engineered design for the wireless attachments
 - JU Partner's wireless attachments will be installed and maintained as per Hydro One's requirements;
 - output power of the wireless attachments,
 - technical specifications including radiation patterns specific to the JU Partner's wireless attachments;
 - health studies specific to the JU Partner's wireless attachments including recommended worker safety requirements within proximity to the wireless attachments;
 - site specific radio frequency (RF) emission data and required worker clearances when working in proximity to the wireless attachments; and
 - documented aesthetic considerations for the wireless attachments

The owner-developed approach per the ESA Technical Guideline for the Approval of Designs shall be used when the JU Partner applies to place its attachments or alter the number, size or nature of its attachments on Hydro One's poles. As the pole owner, Hydro One will be using Hydro One's standard designs to determine the appropriate pole size and class and verify clearances.

The JU Partner will be requested to submit forecasts of permit application volumes to Hydro One on an annual basis, and to update it semi-annually as applicable. These forecasts will provide Hydro One with the appropriate visibility to better support the JU Partner in processing the volume of requests, especially if the intent is to increase or decrease the volume of permit applications significantly relative to previous years. Hydro One will inform the JU Partners about the means by which they can submit their permit application forecasts.

If an entity (whether an existing JU Partner or an entity that does not currently have a JU Agreement with Hydro One) is seeking to overlash onto existing fibres and/or support strands on Hydro One poles that have been authorized, it is the responsibility of the entity to submit a permit application to Hydro One. This applies even in the case where the entity is an existing JU Partner and wishes to overlash on existing, authorized fibres and/or support strands that it owns. If the entity wishes to overlash onto existing, authorized fibres and/or support strands that are owned by a JU Partner, the entity must obtain written confirmation and approval from the said JU Partner **prior** to submitting the permit application to Hydro One. The written confirmation and approval must be included as part of the permit application package. If such confirmation and approval cannot be obtained, tri-party

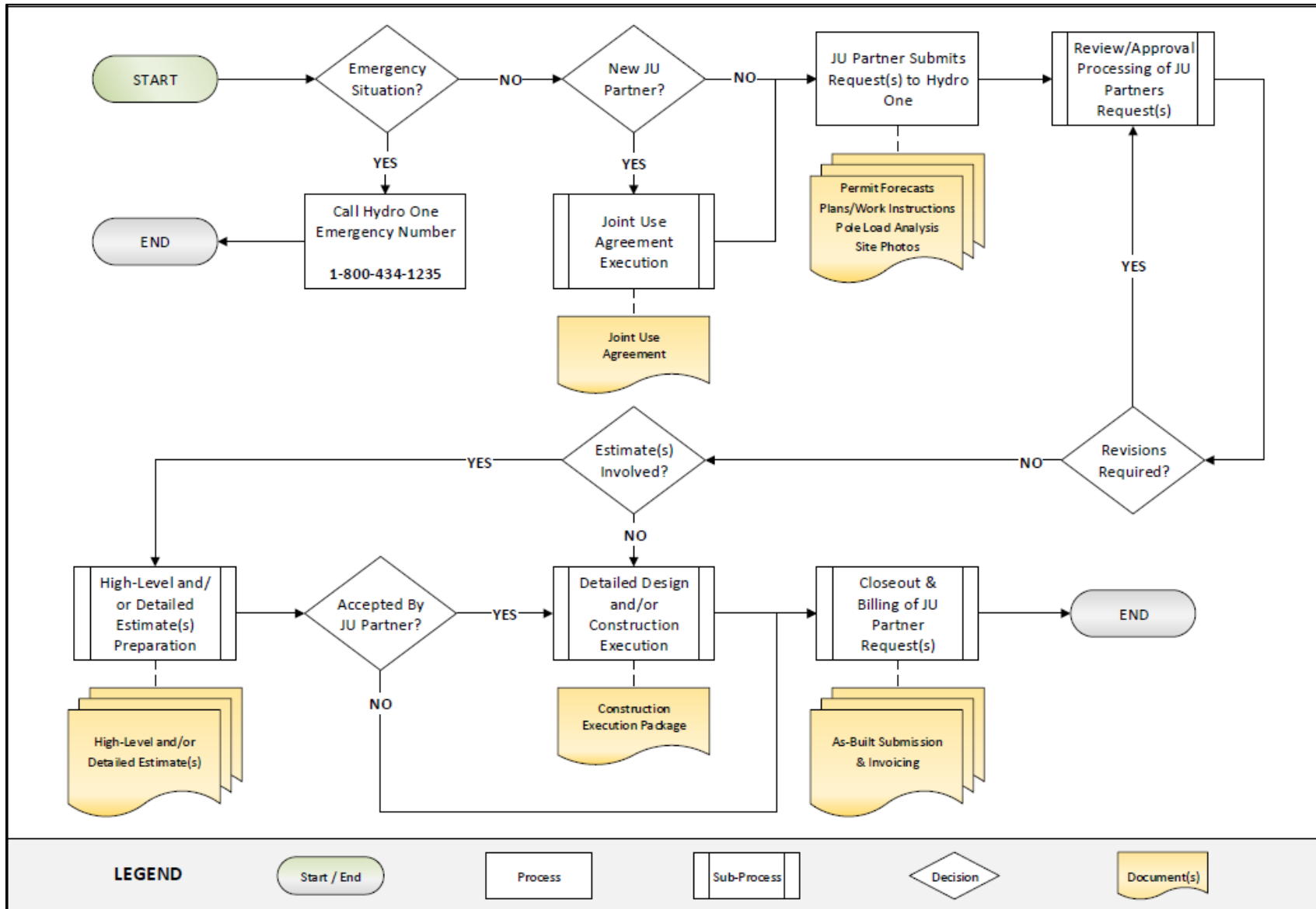
meetings between Hydro One, the entity and the JU Partner must take place in order to ensure alignment and clarity on expectations among all parties.

Joint Use-Related Requests (other than Permit Applications)

The following is a list of information which Hydro One may require a JU Partner to submit in respect of joint-use related requests other than permit applications:

- **Plan Drawing or Work Instruction**
 - To be provided for any request types where loads are being proposed on Hydro One poles that will require the installation, rearrangement, replacement and/or removal of Hydro One conductors, equipment and/or supporting attachments that includes a key map/sketch and scope of work for review and/or approval
 - This would include, but is not limited to pole replacements and Hydro One equipment transfers onto 3rd party structures
 - Must be prepared by a competent and qualified person and include a certificate of approval per the *Technical Guideline for Section 7. Approval of Plans, Drawings & Specifications*) that is signed and sealed by an Ontario Professional Engineer (“P.Eng.”)
 - Must comply with the *Hydro One Joint Use Application – Design Guideline* that details the key design considerations JU Partners should consider to ensure it is compliant with *Canadian Standards Association (CSA) 22.3 No. 1-15 – Overhead Systems*
- **Pole Loading Analysis**
 - To be provided for any request types where loads are being proposed on Hydro One poles that will require the installation, rearrangement, replacement and/or removal of Hydro One conductors, equipment and/or supporting attachments for review and/or approval including, but not limited to pole replacements
 - Must comply with the *Hydro One Joint Use Application – Design Guideline* document (see Appendix C) that details the key design considerations JU Partners should apply to ensure it is compliant with the *Canadian Standards Association (CSA) 22.3 No. 1-15 – Overhead Systems*
 - Must be prepared by a competent and qualified person per the ESA Technical Guideline for the Approval of Designs and signed and sealed by a P.Eng.
- **Site Photos**
 - To assist in verifying pole ownership
 - To assist Hydro One appropriately assess and qualify the presence of any imminent safety concern(s) to its poles and/or attachments including, but not limited to: hazards identified in the field, inadequate clearances, and pole replacements due to their condition

The diagram below illustrates at a high level the process for the review and/or approval of permit applications and other joint-use related requests:



Key Operational-Related Provisions in the A&OP, CAG or Schedule A

Below is a summary of key operational-related provisions found in the applicable A&OP, CAG or Schedule A:

Permit Application Considerations

- The JU Partner will engage and coordinate with Hydro One to schedule a site visit where field coordination is deemed to be necessary to accommodate the proposed attachment installation(s).
- Hydro One will determine the location of the proposed attachment installation(s) on the poles before the JU Partner can proceed with its installation(s).
- The usual position for JU Partner attachments will be towards the road side in the designated space(s) allocated on Hydro One poles, and all JU Partner attachments should all be located on the same side of the poles to minimize climbing hazards and facilitate pole replacements.

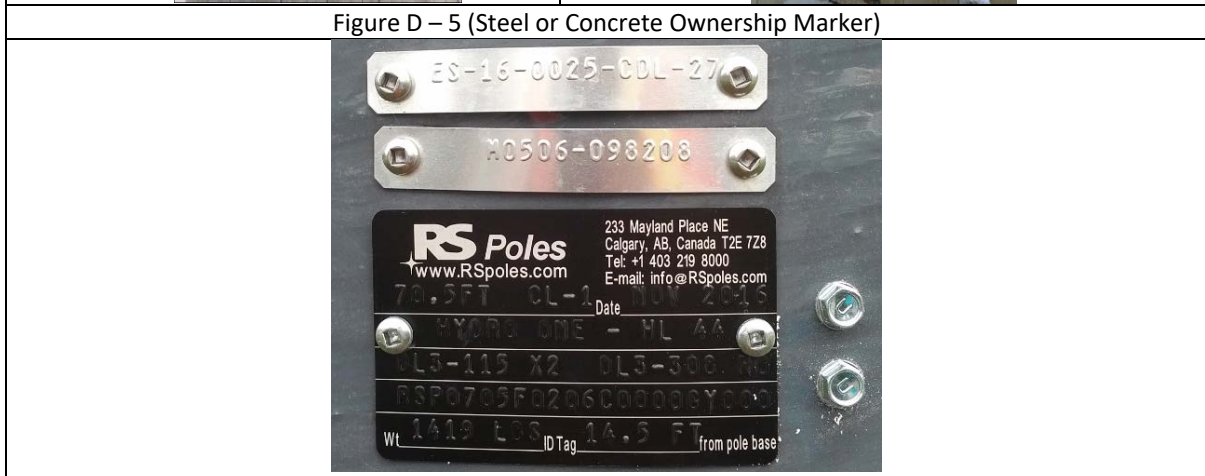
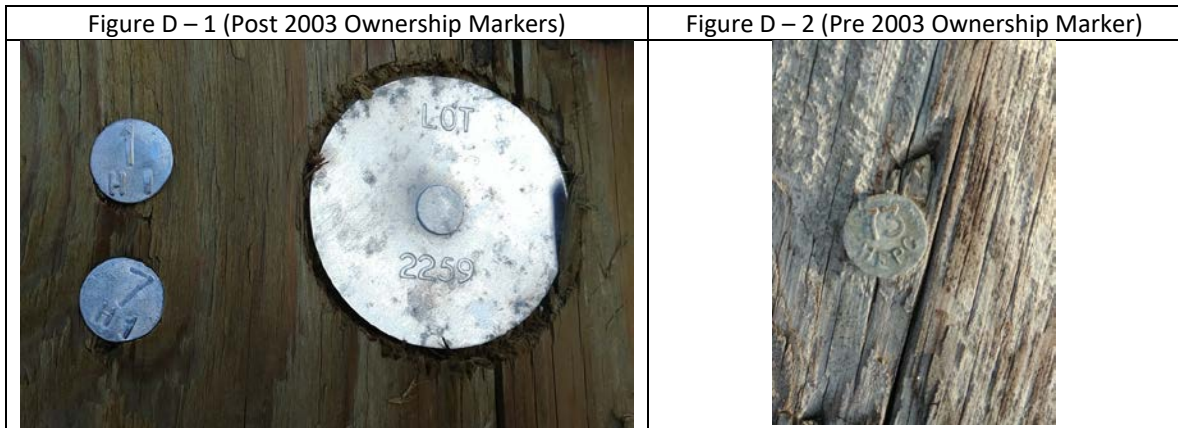
A JU Partner should be mindful of the items listed below when submitting applications. Having regard to such items will assist in Hydro One's processing of applications. Additional details on Hydro One's design guidelines for permit applications can be found in Appendix B and the SpidaCalc settings file referenced in the document will be made available to the JU Partner at a later timeframe in 2021.

- **Refer to ESA and Hydro One guidelines for clarity on when applications need to be stamped/approved by a P.Eng.**
- **The JU Partner must ensure that all of the necessary documentation required by Hydro One is submitted and that there are no missing street names and/or Hydro One barcode or third party pole identification details.**
- **The JU Partner ought to ensure that the documentation submitted as part of permit applications is not corrupted and in standard formats or as requested by Hydro One.**
- **Minimum ground clearances at maximum sag on public roadways is 4.42 metres.**
- **Standard deviations are acceptable on when the existing strand is 1 metre away from the Hydro One's neutral.**
- **All JU Partner attachments are to be installed on the side of the pole facing the roadway.**
- **The JU Partner is to investigate and make best efforts to remove legacy attachments and/or consolidate existing attachments to manage pole loading effects as and where practicable.**
- **In cases where the JU Partner has heavier copper cables currently installed on Hydro One poles, it must be located below any new fibre attachment requests.**
- **The JU Partner is to identify structural and/or electrical issues on Hydro One poles such as woodpecker damage, cracks or weathering, missing insulators etc.**
- **The JU Partner may identify instances where it requires Hydro One to perform temporary or permanent equipment transfers.**

Ownership Identification of Poles & Attachments

- Manufacturer's brand identification are installed by the manufacturer to clearly identify the species of pole and treatment date of the pole as shown in Figure D – 4.
- Dating nails are installed on wooden Hydro One owned poles near the manufacturer's brand identification to clearly indicate pole ownership and placement year, as shown in Figures D – 1 and D – 2 below.
 1. For all poles installed since June 4th, 2003, Hydro One now installs 2 date nails vertically (Figure D – 1).
 2. For all poles installed prior to June 4th, 2003, Hydro One utilized one date nail (Figure D – 2).
- For composite poles, Hydro One utilizes a self-tapping screws installed vertically (Figure D – 5).

- For all other poles, (i.e. Steel or Concrete), the manufacturer’s brand identification identifies which party ordered the pole (Similar to Figure D – 5).
- The JU Partner or Hydro One may also mark the pole with a pole tag insignia to denote pole number, switch number, transformer location, route number etc.
- Hydro One poles also have “barcodes” placed on each pole as shown in Figure D – 3 below.
- Such markings should not present a hazard to persons climbing the joint use pole.
- Any additional joint use pole markings must be agreed to by Hydro One.



JU Partner's Attachment Markings

- In accordance with Hydro One standards, the JU Partner's attachments must be tagged and refer to Figure E - 6, by the Licensee to identify its ownership. The JU Partner shall install its tag onto each attachment at the beginning and the end of where the attachments are installed on Hydro One poles, and every second pole in between, at every transition or dip and for all equipment installed (e.g. power supplies, attachments, etc.).

Figure E – 6 (Example of Sample JU Partner Attachment Markings)



Technical Specifications

Support Strand and Cable

- Unless indicated otherwise by Hydro One, the support strand shall be installed on the same side of the pole as other communications strands. Where no other communications support strands exist, the JU Partner shall install the support strand on the same side as the electrical neutral conductor. Cables and support strands shall not box in the pole to allow pole maintenance.
- The number of parallel, vertical (no offset brackets) support strands contacting the pole on the same side will be limited to three. Over lashing to other communication parties' strands may be necessary. Parallel strands shall not cross over one another between poles.
- The installation height of the JU Partner's support strand is supplied to Hydro One and Hydro One will determine and/or validate the final location based on Hydro One's pole framing standard and maximum conductor sag.
- All cables shall be double lashed when crossing major arterial roads, railways, transitways, provincial highways and navigable waterways.
- Slack storage of the fibre cable and splice cans shall be installed along the strand and not coiled at the pole. Slack storage and splice cans shall not be located over railways, transitways, roadways, or navigable waterways. Fibre cable and its related equipment (e.g. slack storage, splice cans etc.) are not to be located in aesthetically sensitive areas, as identified in the permit the JU Partner obtained per the applicable clauses in the JU Agreement. A maximum of one splice can per strand, at a minimum spacing of two pole spans is allowed.

Wireless Transmitters on Poles

- Any equipment installed on a pole or a strand must be designed and implemented such that in its aggregate, it does not exceed the RF electromagnetic energy limits of Health Canada's Safety Code 6 as defined for an uncontrolled environment, for anyone approaching the pole at ground level, as well as for any worker that would perform maintenance on the pole.
- In addition, there may be a requirement for public and/or municipal consultations and the JU Partner will need to comply with the following:
 - **Mounting heights to be in the communications space or below.**
 - **Mounting location will be on the opposite side of the pole from any existing wired attachments, or if no existing attachments are installed, the location shall be the field side of the pole.**
 - **Wireless attachment(s) shall be installed and kept at a minimum distance from other wireless attachments so as to ensure no interference occurs and will be approved by Hydro One on a case by case basis.**
 - **Wireless attachment(s) that are installed onto the strand shall be located no further than ¼ of that span length from the joint use pole.**

Wireless Transmitter Shutdown Requirements

- The JU Partner agrees to the following in regards to the JU Partner's wireless attachment on each installation:
 - **A contact phone number identified on each device.**
 - **An accessible disconnecting means from any power supply located outside of the device.**
 - **A site number/unit number on the device for identification purposes.**
 - **The ability to safely shut down the device within 30 minutes of receiving the call from Hydro One or any other third party currently attached to the joint use poles.**

Hazardous Conditions

- Hydro One will mark its poles and/or attachments that are found to be in a hazardous condition as per the photos below and see Appendix F for further details on Hydro One's pole banding practices.
 - **The JU Partner and its contractors will not be able to work above those poles that have a red tag holder flagging hazardous conditions.**
 - **Defective/deteriorate poles will be marked with a yellow band that shall be placed a minimum of 2 metres (6') above the ground line.**
 - **Poles owned by other third parties will follow similar practices.**
- The JU Partner and Hydro One will notify each other in writing of the potential safety risks and nature of the hazardous condition as soon as reasonably possible, if the potential or actual hazardous condition is found to be widespread.
 - **In such applicable cases and until the hazardous condition has been addressed, the owner of the pole and/or attachment(s) will offer appropriate protections to the attacher(s) and its contractors at no cost.**
- In the event that the activities of the JU Partner results in a hazardous condition, it will be responsible for all costs associated in having the hazardous condition corrected.
 - **If the hazardous condition is not addressed within 30 days after being notified or by the agreed upon timeframe, Hydro One reserves the right to remove the JU Partner's attachment(s) resulting in the hazardous condition and recovering its costs accordingly.**



Figure B: Red Tag Holder for Hydro One Poles with Hazardous Conditions



Figure C: Yellow Tag for Defective/Deteriorated Hydro One Poles

Installation, Maintenance & Operation of Attachments

- The JU Partner will need to ensure that minimum clearance for its own and Hydro One's attachments from each other and the ground comply with Hydro One standards.
 - **Phase and neutral clearances will be stipulated at the structure based on the required in-span requirements at maximum sag.**
 - **Ground clearances are based on in-span requirements with the conductors or cables at maximum sag**
- Unless specified otherwise by a governmental authority and/or permitted by Hydro One, the JU Partner will **not** install a pedestal or above ground fixture or subsidiary structure **within 3 metres (10') of the base of the Hydro One pole.**
- The JU Partner will ensure that any attachment(s) that do not include a stand-off bracket will not exceed **1 metre (3') high by 0.3 metres (1') wide and a depth of 0.3 metres (1')**. in or below the allocated space for communications attachments on the pole.
- For attachments with stand-off brackets that allow a minimum of 80 millimeters (3") space between the Hydro One pole and the attachment(s), these cannot exceed **1 metre (3') high by 1 metre (3') wide and a depth of 0.7 metres (30")** as shown below.
 - **Any other variations in size must first be approved by Hydro One.**

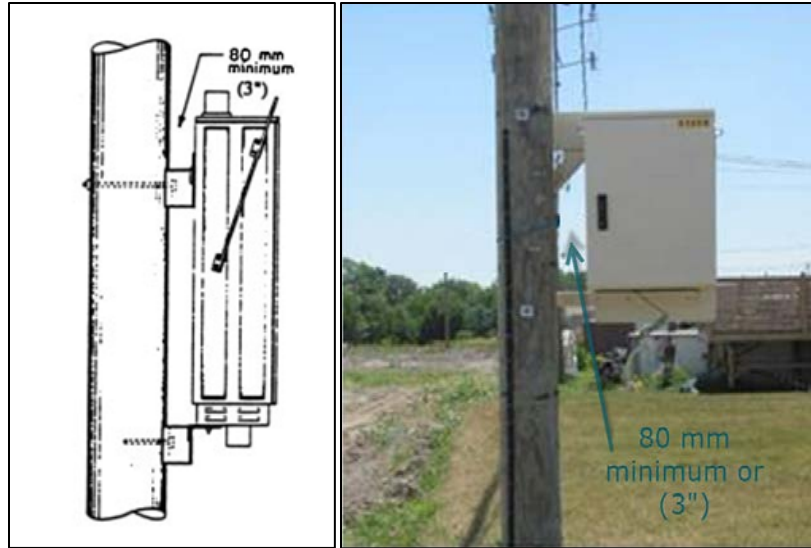


Figure C: Attachments with Stand-off Brackets (Where Permissible)

- Vertical attachments of the JU Partner such as conductors, cables and conduits will be grouped together such that a minimum continuous surface of 60% of the Hydro One pole shall remain clear for climbing purposes.
 - **The JU Partner will not attach or install concrete encased duct or conduits at the base of Hydro One poles.**
- The JU Partner will ensure that a separation of **at least 1 metre (3')** from below ground facilities is maintained between the centerlines of overhead and underground facilities to enable safe operating space when Hydro One is replacing or adding poles to its pole lines.
 - **The JU Partner acknowledges that any encroachments of the 1 metre (3') separation may cause potential risk of future interruptions, cable damage and costs that need to be repaired as well as be liable for additional costs incurred by Hydro One.**
- The JU Partner and Hydro One will be required to provide its own guys and anchors with sufficient capacity to support its own attachments to ensure that guying have a maximum thickness of **9 mm (3/8")**.
 - **If the JU Partner is unable to supply and/or install a suitable anchor, Hydro One may install it upon request at the JU Partner's risk and cost.**
 - **The JU Partner will ensure that its anchors are placed with a minimum separation of 1.5 metres (5') from Hydro One's anchors.**
- Hydro One and the JU Partner may cooperate to joint assess the feasibility and implement joint anchorage.
- The JU Partner will ensure that it avoids crossing guy wires wherever possible, and when such instances arise, it will ensure that the minimum clearance between crossing guys is per Hydro One's standards.
- Strain insulators of the JU Partner's guys should be of appropriate mechanical strength and voltage rating, and must be installed between **2.5 metres and 3.5 metres (8 to 12')** above ground by the JU Partner. The JU Partner's insulators must be maintained in safe working condition at all times.
 - **Primary phase conductors are defined in Hydro One's standards as a circuit having phase to phase voltages above 750V.**

- **The insulators shall be located below all primary and neutral conductors under broken guy conditions and should be a minimum of 2 metres (6') where possible from the point of attachment at Hydro One's joint use pole.**
- **One insulator may be used to meet these requirements provided that it is located below all primary and neutral conductors and it insulates/isolates the section of guy that is within 1.0 metres of the JU Partner's attachments from the top portion of the guy.**
- Pole top extensions of solid epoxy resin fiberglass rod, and Hydro One's discretion, may be installed by Hydro One at the pole top to raise the primary conductor to obtain either the "primary to neutral" or "primary to cable" separations required at the higher voltage.
 - **Explanations will be provided in the case of denial.**
 - **To be used by Hydro One only for tangent applications where a joint use pole replacement would otherwise be necessary (i.e. should not be used on new construction)**
- Bonding on the metallic sheath of communication cables or supporting strands to Hydro One's power system multi-grounded neutral (MGN) is required for joint use when the line voltage is 2,400 voltage phase to ground or greater.
 - **Bonding shall be provided by the JU Partner at lower voltages if requested by the JU Partner to correct any interference problems.**
 - **Bonds shall be installed by the JU Partner at the beginning and end of the joint use pole line and to every Hydro One downground (i.e. vertical ground) and at intervals consistent with coordination protection and/or noise mitigation requirements and not exceed 300 metres (1000') between bonds.**
 - **The JU Partner may make grounding connections to Hydro One's downgrounds in accordance with the Hydro One Joint Use Application – Design Guideline and all connections to Hydro One's system neutral must be made by Hydro One.**
 - **In situations where a MGN does not exist, such as 44kV or 27.6kV delta installations, it is mandatory that an MGN be installed for the protection of the Telecom worker and at the cost of the JU Partner.**
- If Hydro One authorizes the JU Partner to install a wireless attachment, the JU Partner will work cooperatively with Hydro One to develop and support access requirements and will provide Hydro One of a contact number that will be placed on each wireless attachment that shall be available for use **24 hours per day 7 days a week** and someone available during such times to answer and respond to calls.
- The JU Partner will not be permitted to install **more than one** wireless attachment on any given Hydro One poles.

Contractors & Use of Contractors

- The JU Partner may use contractors when performing work on Hydro One poles, and would be responsible for ensuring these contractors comply with the relevant terms and conditions set out in the JU Agreement with Hydro One.
- The JU Partner may also contract Hydro One to perform all applicable work including construction activities, and the work would proceed on terms and conditions agreed upon between the JU Partner and Hydro One.
- The JU Partner will be responsible to ensure that the contractor(s) engaged to perform work on its behalf on Hydro One poles have received, or will provide them as and where appropriate, the following training to demonstrate the appropriate level of skill and competence to work in proximity to an electrical environment:

- **Electrical hazards awareness**
- **Identification of failure potential in insulators, poles, depth of setting and inspection methods**
- **Identification of line voltage & placement of attachments on structure**
- **Clearance specifications specifically: clearances to ground, driveways and roadways, separation between Hydro One's attachments and the JU Partner's attachments**
- **Testing and use of rubber gloves of applicable class during the placement of JU Partner attachments parallel to energized conductors**
- **Requirements for hold-offs, protection or isolation at certain stages of construction**
- The JU Partner will ensure that the contractor(s) engaged to perform work on its behalf on Hydro One poles have received good working knowledge and understanding of:
 - **Applicable governing regulations**
 - **Electrical theory**
 - **Energy flows and barriers**
 - **Electrical induction**
 - **Electricity and the body**
 - **Limits of approach**
 - **Hazard identification**
 - **Insulating gloves and testers**

Pole Attachment Rate Administration

- If the JU Partner has installed permitted attachments on Hydro One pole(s), where it does not have any existing attachments, after an invoice for the aggregate pole attachment rates has been issued, it will be charged the full pole attachment rate for the said pole(s).

In any given year, any permitted JU Partner attachments placed on Hydro One poles between January and June will be invoiced in July of the given year, and those permitted JU Partner attachments placed on Hydro One poles for the remainder of the year will be invoiced in January of the following year.

Coordination Activities & Division of Costs

- Refer to the Division of Costs & Cost Sharing Table below for a summary of the type of work, reason for the work being undertaken and responsible party.
- In the event Hydro One is notified by the public or the JU Partner of an emergency or hazardous condition relating to the JU Partner's attachments, it agrees to perform the following emergency services or activities as part of trouble call services to make the site and surrounding area safe:
 - **Restricting public access to the immediate site**
 - **Clearing the roadways of debris**
 - **Any other applicable work**
- Pay the pole attachment rate where interspaced poles are added to an existing Hydro One pole line used for joint use for the sole requirements of the JU Partner (and will be the property of Hydro One):
 - **In such instances, the cost of such new poles and Hydro One's attachment transfers will be paid by the JU Partner.**
 - **The applicable pole attachment rate will also be paid by the JU Partner and any existing permit(s) will be superseded in both cases.**

Line Clearing

- Routine cyclical line clearing required to establish clearance for the JU Partner's attachments will be at its sole responsibility. The JU Partner or its approved contractor(s) will undertake the additional trimming or removal of trees, underbrush or any other items for its attachments in the allocated communications space.
 - **The JU Partner will be liable in the event of any damages to Hydro One plant arising from such vegetation management activities.**

Permit & Safety Audits

- Hydro One has the right to audit poles where the JU Partner has attachments in consultation with the JU partner to perform the following:
 - **Detect and subsequently correct all deficiencies either with the JU Partner's attachments and/or Hydro One's attachments**
 - **Confirm that the JU Partner's attachments have been properly authorized through permits issued by Hydro One**
 - **Confirm the accuracy of pole attachment rates being charged**
- In cases where an audit is carried out by both parties simultaneously, each part shall bear its own respective costs associated with the audit.
 - **If the audit reveals that the number of unauthorized attachments exceeds 2% of the number of poles that Hydro One has permitted for the JU Partner, the JU Partner will pay Hydro One's costs associated with the audit and the pole attachment rates for the unauthorized attachments**

Unauthorized Attachments and Redundant Attachments

- If the JU Partner (or a contractor working on its behalf) installs attachments on Hydro One's poles without prior approval by (or on behalf of) Hydro One, Hydro One in its sole discretion, may require the JU Partner to submit revised or new permit application(s) to reflect the unauthorized attachments.
 - **Hydro One will then review the permit application(s) and should they be approved, said JU Partner attachments would become authorized and could then remain on the Hydro One poles.**
- The JU Partner will also be required to pay Hydro One the total pole attachment rates for unauthorized attachments each year during which the unauthorized attachments are placed on Hydro One poles **OR** for a period of five years, whichever is greater.
 - **Service drops will not be treated as unauthorized attachments.**
- The JU Partner will notify Hydro One in writing of any redundant attachments, and in situations where the JU Partner has the capacity to allow over lashing of a third party or consolidate their existing attachments, best efforts must be made to accomplish this.

Late Payments

- In the event that the JU Partner fails to pay any payable amounts, such unpaid amounts will be charged interest from the payment due date until the date Hydro One receives such payment at a rate of **1.5% per month compounded monthly** or **19.56% per year**.

Key Operational Timelines

Below is a summary of some key timelines referenced in the applicable A&OP, CAG or Schedule A:

Hazardous Conditions

- Correction of hazardous conditions by the JU Partner **no later than 30 days after being notified** by Hydro One unless a different timeline has been agreed to.
- Correction of hazardous conditions by Hydro One **no later than 30 days upon discovery or being notified** by the JU Partner unless a different timeline has been agreed to.

Installation, Maintenance & Operation of Attachments

- In order to accommodate a new or upgraded electrical connection, the JU Partner shall temporarily rearrange, transfer or remove JU Partner attachment(s) on Hydro One pole(s) at Hydro One's request **within 15 days of being notified in writing or shorter timeframe as agreed upon**.
 - **Hydro One may perform this work or by others where appropriate if the JU Partner does not comply with this request or under an emergency and the JU Partner shall be responsible for the costs of such work.**
- The JU Partner shall rearrange, transfer or temporarily remove its attachment(s) on Hydro One pole(s) at Hydro One's request **within 90 days of being notified or as agreed upon**.
 - **Hydro One may perform this work or by others where appropriate if the JU Partner does not comply with this request or under an emergency and the JU Partner shall be responsible for the costs of such work.**
- With respect to Permits and Safety audits, each party agrees to correct all deficiencies **within 90 days of the deficiencies being identified or as agreed upon**.
- Remove unauthorized JU Partner attachments **by no later than 30 days after requested by Hydro One to do so** if Hydro One determines that said attachments are not feasible.
 - **If the JU Partner does not comply, Hydro One will have the right to charge the JU Partner as detailed above and/or remove all unauthorized attachment and charge the JU Partner for all costs incurred.**
- Remove redundant attachments **within 90 days of being notified by Hydro One or within 90 days of the JU Partner's attachments becoming redundant**, whichever occurs first.
 - **If the JU Partner fails to comply, Hydro One may claim for liquidated damages.**

Right of Way

- Hydro One gives no warranty of permission from property owners, such as municipalities, for the use of Hydro One's poles by the JU Partner. The JU Partner shall resolve any objections to obtaining permissions from property owners for the use of Hydro One poles **within 30 days of the objections first being raised or as agreed to in writing to another time period**.
 - If unresolved, Hydro One may require the JU Partner to remove its attachment(s) from the Hydro One poles in question **within 90 days after receipt of such notice**.

Pole Attachment Rate Administration

- Pay the invoice for the aggregate pole attachment rates for all poles where the JU Partner has attachments permitted for on Hydro One poles by **no later than 60 days after the invoice date**.
 - **The JU Partner may pay the invoice in two installments on or before the first days of March and July each year based on prior written approval from Hydro One.**
- Invoices are payable **no later than 30 days after the work and/or services have been provided** by Hydro One.

Coordination Activities & Division of Costs

- The JU Partner will:
 - acquire the poles at a mutually agreed upon price or remove its attachments from the said poles at its own risk and costs **within 45 days after being notified of the required removals by Hydro One** when Hydro One has removed its attachments from its poles and topped them off above the JU Partner's attachments.
 - remove its attachments from Hydro One's poles **within 45 days after receipt of the notification to remove its attachments by Hydro One** if the JU Partner desires or is required to discontinue use of the Hydro One poles or where the permit(s) for its attachments on said poles are cancelled.
 - **If the JU Partner fails to remove its attachments thereafter, Hydro One will remove them at the JU Partner's cost and risk of damage to its attachments.**
 - pay the costs incurred by Hydro One to prepare written cost estimates that are NOT signed or returned to Hydro One within 120 days.
 - **Hydro One will prepare and provide the JU Partner a written cost estimate for any costs to be paid (in full or in part) by the JU Partner prior to performing the work.**
 - **When the written cost estimate is signed and returned to Hydro One, it will be considered a valid purchase order and form the basis for invoicing where applicable**
 - transfer any existing applicable permits issued to the JU Partner by Hydro One for any attachments that will need to be transferred from the existing JU Partner pole line to a newly constructed, adjacent Hydro One pole line **by no later than 45 days after the said transfer**.
 - **In such instances, Hydro One will pay the JU Partner its costs for transferring its attachments and the residual value of the JU Partner's poles on its existing pole line that have been replaced with the poles on Hydro One's new pole line within 30 days after Hydro One's receipt of an invoice from the JU Partner.**

When Hydro One wishes or needs to build a pole line adjacent to an existing pole line owned by the JU Partner, Hydro One shall build the pole in in such a manner so as to accommodate the JU Partner's attachment(s) that are on the JU Partner's existing pole line. Upon completion of the construction of Hydro One's new pole line, the JU Partner shall transfer its attachments from its existing pole line onto Hydro One's new pole line and the JU Partner will submit a revised or new permit application(s) to reflect the attachments identified from the audit **within 30 days of the field audit**.

Dispute Resolution

- Upon written notice being provided by either party, refer disputes to a committee to be formed and comprised of two representatives, one from each party, should it not be resolved at an operational level **within 30 days after the dispute arises**.
 - **If the two representatives cannot resolve the dispute within 10 days after reference to them, either party may seek such further recourse as it deems appropriate.**

Division of Costs

The table below outlines the division of costs between Hydro One and the JU Partner based on various scenarios:

Division of Costs & Cost Sharing Table

Item No.	Type Of Work	Reason For Work	Party Responsible for Costs
1	Hydro One Make Ready Design & Estimate	Due to JU Partner Application	JU Partner
2	Review, Approval & Construction Verification of Permit Application by JU Partner to Hydro One	Due to New or Revised JU Partner Application	JU Partner
3	Rearrangement/Transfer/Removal of Either JU Partner or Hydro One Attachments	JU Partner Requirement	JU Partner
4		Hydro One Requirement	Each Party Bears its Own Costs
5		Third Party Requirement	Third Party ¹
6	Installation of Attachments by JU Partner	JU Partner Requirement	JU Partner
7	Replacement of Hydro One Poles for Joint Use	JU Partner Requirement	JU Partner
8		Hydro One Requirement	Each Party Bears its Own Costs
9		Third Party Requirement	Third Party ¹
10		Due to Vehicle/Storm Damage or Deterioration	Each Party Bears its Own Costs
11	Installation of Interspace Hydro One Poles for Joint Use	JU Partner Requirement	JU Partner
12		Hydro One Requirement	Each Party Bears its Own Costs
13		Third Party Requirement	Third Party ¹

14	Replacement or Addition of Hydro One Poles on non-Joint Use Hydro One Pole Line	Common Crossing for JU Partner	JU Partner
15		Common Crossing for Hydro One	1. Hydro One Purchases the JU Partner Pole at Residual Value; OR 2. Hydro One Installs New Pole(s) at its Cost and the JU Partner Attaches at Hydro One's Cost. The JU Partner Removes the Old Pole(s) at its Cost and Submits a Permit Application to Hydro One
16	Removal of Hydro One Pole(s)	JU Partner Requirement	JU Partner
17		Hydro One Requirement	Each Party Bears its Own Costs
18		Third Party Requirement	Third Party ¹
19	Rectification or Removal of Hazardous Condition	Safety Requirement	Party Creating the Hazardous Condition
20	Bonding of JU Partner Attachments to Hydro One's System Neutral	JU Partner Requirement	JU Partner
21	Vegetation Management Optimal Cycle Protocol by Hydro One	Both	Hydro One
22	Custom Standard Design by JU Partner to Hydro One	JU Partner Requirement ²	JU Partner

¹Hydro One & JU Partner Bill the Third Party Directly

²Examples include Joint Anchoring or Special Crossings

References

CSA 22.3 No. 1-15 – Overhead Systems

ESA Guideline for Third Party Attachments

ESA Technical Guidelines for Approval of Designs and Construction Inspection & Approval

Electrical Distribution Safety Regulation – Ontario Regulation (O.Reg.) 22/04

Health Canada Safety Code 6 Regulation

List of Appendices

Appendix A – Distribution Lines Contact List

Distribution Lines Contact List

Whenever the JU Partner desires to place its attachments on Hydro One’s poles, it must initially contact Hydro One at the appropriate zone office as shown in the table below to express its interest.

Region	Telephone Number	Email Address
Southern	1-800-957-7756 OR 226-705-5000	SouthernFBCPlanning@HydroOne.com
GTA	705-797-4172	Zone8Scheduling@HydroOne.com
Central	1-888-238-2398 OR 705-728-5017	CentralFBCplanning@HydroOne.com
Eastern	1-888-332-2249 OR 613-267-2154	EastZoneScheduling@HydroOne.com
Northern	1-888-835-9444 OR 705-566-8955	NorthernJointUseandRelocates@HydroOne.com

