

# Licensed Occupant Guide: Municipal Attachments

D08-08.2

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**1. Scope**

- 1.1. This document provides the details and requirements for attaching and approving Municipal Attachments on FortisAlberta poles. This document also provides various ways and options in providing electric service to Municipal Attachments, as required.
- 1.2. The requirements and instructions in managing and approving telecommunication wireline attachments on FortisAlberta poles are provided in D08-08.1 [B1].
- 1.3. The requirements and instructions in managing and approving the attachment and servicing of small connected devices on FortisAlberta poles are provided in D08-08.3 [B1].
- 1.4. The requirements and instructions in managing and approving the attachment and servicing of distributed energy resources attachments on FortisAlberta poles are provided in D08-08.4 [B1].
- 1.5. The process for pole attachment request is provided in the Joint Use Process (external) [B2] document.

**2. Purpose**

- 2.1. To provide details and requirements for the safe installation and operation of municipal attachments on FortisAlberta poles and to meet applicable codes and regulations.

**3. Normative References**

- 3.1. Workers shall be competent in FortisAlberta standards:
  - 3.1.1. D08-08 – Joint Use: General (Internal Standard Only) [B1]
  - 3.1.2. D08-08.3 – Joint Use: Small Connected Devices [B1]
  - 3.1.3. D08-08.4 – Licensed Occupant Guide: Distributed Energy Resources
- 3.2. FortisAlberta Joint Use Process (External) [B2]

**4. Electric Distribution System Franchise Agreement (See Annex A)**

- 4.1. FortisAlberta's Municipal Franchise Agreements (MFA) with Municipalities allows FortisAlberta to build, operate and maintain its electric distribution systems within the service area of the Municipality. Requests for attachments on FortisAlberta poles located on private properties, within the service area of the Municipality, may require additional approvals.
- 4.2. The MFA also allows the municipality to attach facilities that are not commercial in nature to FortisAlberta's distribution system. However, the municipality must complete an application to attach facilities on FortisAlberta poles and shall be approved by FortisAlberta before attaching such facilities on FortisAlberta's structures.

**5. Liability Waiver Letter**

- 5.1. A municipality within FortisAlberta service area without Municipal Franchise Agreements will need to sign a liability waiver letter with FortisAlberta when proposing to attach facilities on poles.

- 5.2. The liability waiver letter is intended to manage risks and liabilities for both parties, and in ensuring the municipal attachments comply with applicable regulations.
- 5.3. Refer to Annex C, Municipalities in Alberta, for additional information.

## **6. Legislations**

### **6.1. Alberta Electrical Utility Code (AEUC) (See Annex B)**

The Alberta Electrical Utility Code (AEUC) [B3], provides the minimum safe limits of approach for persons and equipment performing activities near overhead power lines and definitions of utility worker and qualified utility worker.

- 6.1.1. A person must notify FortisAlberta, by calling 310-WIRE (9473), before any activities are undertaken or equipment is operated within 7.0 meters of FortisAlberta's electric distribution system, to:

- a) Determine the voltage of the powerline; and
- b) Establish the safe limit of Approach distance as listed in Section 2-014 and Table 1.

#### **6.1.2. Section 2-014 and Table 1, safe limits of approach <sup>(1)</sup>**

- |  |       |
|--|-------|
| • 0 – 750 V insulated, or polyethylene covered conductors <sup>(2)</sup> | 0.3 m |
| • 0 – 750 V bare, uninsulated  | 1.0 m |
| • Above 750 V insulated conductors <sup>(2)(3)</sup>                     | 1.0 m |
| • 0.75 kV – 40 kV  | 3.0 m |

- 6.1.3. The required safe limits of approach do not apply to movement of persons, equipment, buildings, vehicles, or objects under FortisAlberta's overhead powerlines.

### **6.2. Occupational Health and Safety Code**

Occupational Health and Safety Code – Alberta Regulation 191/2021 [B4] and Explanation Guide provides further guidance on the safe limit of approach distances as specified in the AEUC.

- 6.2.1. Section 225 (2), An employer must notify the operator of an energized overhead power line before work is done or equipment is operated in the vicinity of the powerline at distances less than the safe limits of approach as specified below and obtain the operator's assistance in protecting workers involved.

- |  |       |
|--|-------|
| • 0 – 750V insulated or polyethylene covered conductors <sup>(4)</sup> | 0.3 m |
| • 0 – 750V bare, uninsulated   | 1.0 m |
| • Above 750V insulated conductors <sup>(4)(5)</sup>                    | 1.0 m |
| • 0.75V – 40kV   | 3.0 m |

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<sup>1</sup> Table 1, Safe Limits of Approach Distance from Overhead Power Lines for Persons and Equipment, AEUC 2016.

<sup>2</sup> Conductors must be insulated or covered throughout their entire length to comply with these groups.

<sup>3</sup> Conductors must be manufactured to rated and tested insulation levels.

<sup>4</sup> Conductors must be insulated or covered throughout their entire length to comply with these groups.

<sup>5</sup> Conductors must be manufactured to rated and tested insulation levels.

**6.3. CSA C22.3 No. 1-15, Overhead Systems**

6.3.1. CSA C22.3 No. 1-15, Overhead Systems [B5], specifies the Minimum Vertical Separations at a Joint Use structure <sup>(6)</sup> and working space to allow workers to have access to equipment and conductors and to allow for the installation of the equipment on the structure. FortisAlberta’s interpretation is that these separations do not include the minimum approach distance required by AEUC.

- 0 – 750V supply conductors and Communication line plant 1.0m
- > 0.75kV up to and less than 22kV supply conductors 1.2m
- Luminaires span wires or brackets and communication line plant
  - Not effectively grounded 1.0m
  - Effectively grounded 0.1m

**7. Typical Municipal Attachments and Methods of Attachment**

**7.1. Banners**

7.1.1. Banners might have large dimensions and can act as a wind sail on poles when secured on both ends. The added wind loading on poles may exceed the strength rating of a pole. Thus, the required information as specified below shall be provided to FortisAlberta. This information will be used by FortisAlberta to evaluate pole loadings and to ensure that the structure is fit for attachment prior to giving an approval to attach.

7.1.2. For new extension of streetlight facilities on new developments and where there are intentions of attaching banners, the requirements to attach banners on streetlight poles are to be identified at the start of the project. This will help ensure that appropriate streetlight poles are ordered and installed for these applications.

7.1.3. Banners should be attached to poles by using spring loaded banner arms with clamps. Spring loaded banner arms help reduce the wind loading on poles.

Other methods of attachments may be allowed including fixed (single or double arm) and swivel banner arms strapped on the pole. However, these methods of attachments may cause significant loading and may cause the streetlight poles unfit for banner attachments.

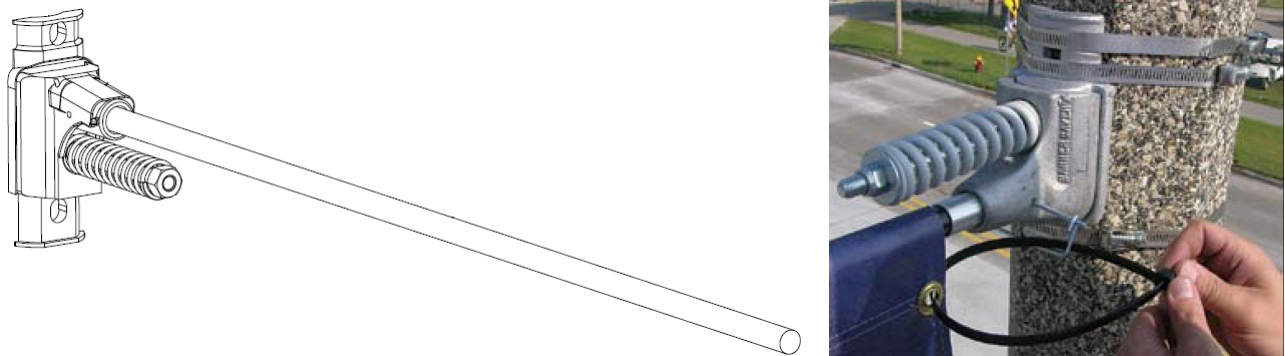


Figure 1: Banner arm, spring loaded, complete with fiberglass rod

<sup>6</sup> Table 23, Minimum Vertical Separations at a Joint Use Structure, CSA C22.3 No. 1-15.

## 7.2. Municipal Christmas Lighting

- 7.2.1. Municipal Christmas lighting may be connected to FortisAlberta's electric distribution system within the months of December through to February, as specified in FortisAlberta's tariff rate 31 and 33.



Figure 2: Christmas lighting fixtures on streetlight poles

- 7.2.2. The addition of Christmas lighting loads in the distribution system shall be designed and built to meet cable ampacity and voltage drop requirements (See Annex E, Transformer and Voltage Drop Calculations). Where these requirements are not met, modifications or upgrades may be needed before connecting these loads in the system. All needed upgrades are attributed to the customer.
- 7.2.3. Christmas lighting fixtures are to be attached on streetlight poles by using clamps. Drilling on the streetlight poles is not allowed since it will lead to rusting.
- ## 7.3. Planters
- 7.3.1. Planters attached on FortisAlberta poles can add significant weight and wind loading on the structure. As such, streetlight pole loadings are to be evaluated by FortisAlberta prior to giving approvals to attach.
- 7.3.2. Planters are to be attached on streetlight poles by using clamps. Drilling on the streetlight poles is not allowed since it will lead to rusting.
- 7.3.3. The customer shall be responsible to attach the planters to the proper height and clearances to ground as per applicable regulations.



Figure 3: Planters on streetlight poles

#### 7.4. Security Cameras

- 7.4.1. Applications for security camera attachments and taking electric service on poles shall follow the D08-08.3, Joint Use: Small Connected Devices requirements [B1].

#### 7.5. Solar Speed Signs

- 7.5.1. Solar speed signs on streetlight poles can add significant weight and wind loading on the structure. These attachments have its own power source (i.e., solar and battery) and will not usually require an electric service.



Figure 4: Solar speed signs on streetlight poles

- 7.5.2. Streetlight pole loadings shall be evaluated by FortisAlberta prior to giving approvals to attach. Any applicable structural evaluation fees, as may be required, will be attributed to the customer.
- 7.5.3. The solar panel, control box, and speed sign shall be attached to streetlight poles by using clamps. Drilling on streetlight poles is not allowed since it will lead to rusting.
- 7.5.4. The Customer shall be responsible to attach the solar speed signs to the proper height and clearances to ground as per applicable regulations.

#### 7.6. Traffic and Speed Signs

- 7.6.1. Traffic and speed signs on poles shall be attached to streetlight poles by using clamps. Drilling on the streetlight poles is not allowed since it will lead to rusting.
- 7.6.2. The Customer shall be responsible to attach the traffic and speed signs to the proper height and clearances to ground as per applicable regulations.



Figure 5: Traffic and speed signs on streetlight poles



**8. Required Details of Proposed Attachments on Poles**

This section provides the pole attachment application forms and details of required information to be provided to FortisAlberta representatives at time of request.

Municipal  
Attachment Forms.xlMunicipal  
Attachment Forms.p

The Customer shall provide details of the proposed attachment on poles. The information will be used to evaluate the integrity of the pole in accommodating the proposed attachment and to determine how electric service is to be supplied to these attachments, as may be required.

**8.1. Banners**

- a) Quantity of banners on each pole
- b) Size and dimensions of banners (Height and Width) (mm)
- c) Weight of banner (kg)
- d) Type of banner material (i.e., fabric, plastic, vinyl, metal, etc.)
- e) Height of attachments from ground (provide sketch) (mm)

NOTE: The height of attachments may be limited with the type of streetlight poles. In addition, the banner's height of attachment shall meet the required ground clearances. For example, if banners are proposed to hang over the road right of way, the lowest part of the banner shall meet the required road clearances.

- f) Method of mounting (i.e., fixed, swivel, strapped on poles, spring loaded banner arms).
- g) Height of upper banner arm.
- h) Height of lower banner arm/eye bolt.
- i) Are there wind holes in the banner?
- j) For attachments on streetlight poles, at what side of the pole is the banner to be attached? (i.e., same side or opposite side of the luminaire?)
- k) Is this a permanent or temporary attachment?
- l) Length of time banners will be attached on the pole (Months).

**8.2. Christmas Lights**

- a) Quantity of Christmas Light Fixture on each pole?
- b) Attachment type (i.e., fixed, swivel, strapped on the pole).
- c) Dimensions (Width x Height) (mm)
- d) Weight (kg)
- e) Height of attachments from ground (provide sketch) (mm)

NOTE: The height of attachments may be limited with the type of pole. In addition, the banner's height of attachment shall meet the required ground clearances. For example, if

banners are proposed to hang over the road right of way, the lowest part of the fixture shall meet the required road clearances.

- f) Supporting arm length of the fixture, if applicable
- g) Total electrical load (kW) per fixture
- h) Voltage (V)
- i) Number of phase and wire (for example, 1-phase, 2 wire)
- j) For attachments on streetlight poles, at what side of the pole is the fixture to be attached? (For example, same side or opposite side of the luminaire?)
- k) Is this a permanent or temporary attachment?
- l) Length of time Christmas light fixtures will be attached on the pole (If temporary, indicate how many months).

### 8.3. Planters

- a) Indicate quantity of planters on each pole
- b) Attachment type (i.e., fixed, swivel, strapped on the pole)
- c) Dimensions (Width x Height) (mm)
- d) Weight (kg)
- e) Height of attachments from ground (provide sketch) (mm)

NOTE: The height of attachments may be limited with the type of streetlight poles. In addition, the banner's height of attachment shall meet the required ground clearances. For example, if banners are proposed to hang over the road right of way, the lowest part of the fixture shall meet the required road clearances.

- f) Supporting arm length of the fixture, if applicable
- g) For attachments on streetlight poles, indicate what side of the pole is the fixture to be attached (For example, indicate if same side or opposite side of the luminaire).
- h) Is this a permanent or temporary attachment.
- i) Length of time planters will be installed by (If temporary, indicate how many months).

### 8.4. Speed and Traffic Signs

- a) Size and dimensions (mm) (height, width, depth) of each equipment / device
- b) Mass (kg) of each equipment / device
- c) Height of attachments from ground (provide sketch) (mm)

NOTE: The height of attachments may be limited with the type of streetlight poles. In addition, the banner's height of attachment shall meet the required ground clearances. For example, if banners are proposed to hang over the road right of way, the lowest part of the equipment / device shall meet the required road clearances.

- d) Method of mounting (i.e., strapped on the pole)

**9. Recommended and Restricted Poles for Pole Attachments****9.1. Recommended poles for pole attachments**

- a) Streetlight poles – for the intent of this document, streetlight poles shall refer to underground fed steel streetlight poles. Generally, streetlight poles are available for pole attachments unless identified as restricted in the following sections. Streetlight poles are to be inspected, evaluated for structure loading, and appropriateness before giving approvals to attach.
- b) Tangent wood poles (simple framing for supporting conductors without guying or deadend) usually provide better clearances and space for pole attachments. These may include single phase transformer on tangent poles. Due to operational reasons, two thirds of the pole typically must be free for climbing, which restricts some pole types. Wood poles are to be inspected, evaluated for structure loading and appropriateness before giving approvals to attach.

**9.2. Restricted poles for pole attachments**

- a) Streetlight poles with existing pole attachments (including previously approved attachments) will require a re-evaluation of the integrity of the structure and a new approval from FortisAlberta.

Notes: Streetlight poles structure analysis is usually completed by FortisAlberta's pole manufacturer. Thus, details of new and existing pole attachments, and technical details of the streetlight poles shall be obtained and gathered for evaluation. Any additional cost of evaluations will be attributed to the customer.



Figure 6 – Existing attachments (left), breakaway poles (center), direct buried (right)

- b) Streetlight poles with 480V secondary system. Certain streetlight poles may have a 480V system. NOTE: This restriction applies where electric service is required and fed from streetlight poles. Electric service would be limited to 120V streetlight systems.

- c) Streetlight poles with visible signs of rusts and dents. Rusts and dents affect the integrity of streetlight poles. Streetlight poles with rusts and dents, as verified in the field, shall be replaced when required for pole attachments.
- d) Streetlight poles on breakaway bases - pole attachments are not allowed. Breakaway streetlight poles are intended to improve traffic safety and are not meant to handle the additional structure loading of pole attachments. Breakaway bases are not to be replaced with standard bases due to its intended purpose and use. These structures are also of greater risk for pole attachments based on its location.
- e) Direct buried streetlight poles – pole attachments are not allowed unless replaced. Direct buried streetlight poles are old standard structures and will have to be replaced when required for pole attachments. The actual condition of the portion buried underground is unknown unless verified and tested, thus, additional loading on the structure may cause the structure to fail.
- f) Wood poles with guying, equipment, or switching devices (corner poles, primary underground risers, secondary underground risers, three phase banked transformer poles, regulator banks, MVIs, capacitor banks), no attachments are allowed. The pole attachment will generally restrict maintenance and operations work on these normally accessed structures.
- g) Figure 6 presents a traffic speed sign attached on a wood riser pole. This attachment is not allowed. The attachment would restrict ability of workers to climb up the pole, and it encroaches on the telecommunication zone. Alternatively, and with approval, traffic and speed signs may be allowed to attach on streetlight poles (see figure 6 left picture).



Figure 7 – (NOT ALLOWED) Speed signs restricting access and encroaching on communication zone

**10. Standard Attachments on Streetlight Poles**

10.1. The following attachments on streetlight poles meeting the following criteria will not require further review by Standards group.

a) Banners

- Streetlight poles: Steel pole, single davit
- Maximum size of banner: 24" x 48" (0.6m x 1.2m)
- Maximum number of banners: One (1). No additional signage or attachments on the pole.
- Maximum weight of banner: 10 lbs
- Maximum height of attachment (above arm): 18 feet (5.5m)
- Banner material: Vinyl or soft material. Banners made of steel or metal will require Engineering review and approval
- Location: Service areas North of Calgary.

NOTE: Streetlight poles located South of Calgary are exposed to higher wind loadings. Thus, will require Engineering review and approval.

- Banner arm: spring loaded banner arms.
- Pole integrity: (to be verified in the field)
  - No dents, no rusts (usually seen at the base of the pole both to the exterior and interior surfaces of the pole), or signs of damage.
  - Not on break-away bases.
  - Not direct buried.

**11. General Requirements****11.1. Applications to Attach on Poles**

The customer must make an application and obtain FortisAlberta approval prior to making an attachment on poles.

Application forms should be completed and attachment details ready prior to making an application.

**11.2. Installations, modifications, and maintenance of attachments on poles.**

The customer shall be responsible for the installation, modification, and maintenance of its attachments on poles and shall meet all applicable Codes and Regulations.

The customer must notify FortisAlberta, by calling 310-WIRE (9473), before any activities are undertaken or equipment is operated within seven (7) meters from FortisAlberta's electric distribution system.

**12. Connections, Shutdown, and Notifications for Equipment & Devices****12.1. Electric Service Connections**

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12.1.1. Municipal Christmas lighting will normally require an electric service. The provision of electric service may be provided as follows:

- a) On streetlight poles with nipple (standards in effect since 2013): FortisAlberta is to install a weatherproof receptacle, complete with service conductors inside streetlight poles. Customer to plug in approved device on the weatherproof receptacle.

Note: Order standard structure 1403-1.

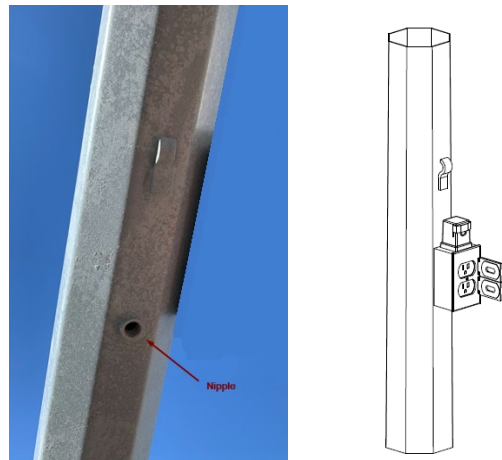


Figure 8: Streetlight poles with a nipple (left); weatherproof receptacle on streetlight poles (right)

- b) On streetlight poles without nipple (standards prior to 2013): FortisAlberta to supply and install an ancillary power tap (item# 641-0405), a load center (item# 584-0320), and a weatherproof receptacle on streetlight poles. The ancillary power tap will be connected to the photocell of the luminaire (Figure 9 left). The ancillary power tap cable will be strapped to streetlight poles to connect to the line side of the load center (Figure 9 middle). Then the weatherproof receptacle will be connected to load side of the load center (Figure 9 right). The weatherproof receptacle shall be wired as a controlled receptacle (with photo eye). Customer to plug in its service conductors of approved device to the weatherproof receptacle.

NOTE: Order standard structure 1404-4.

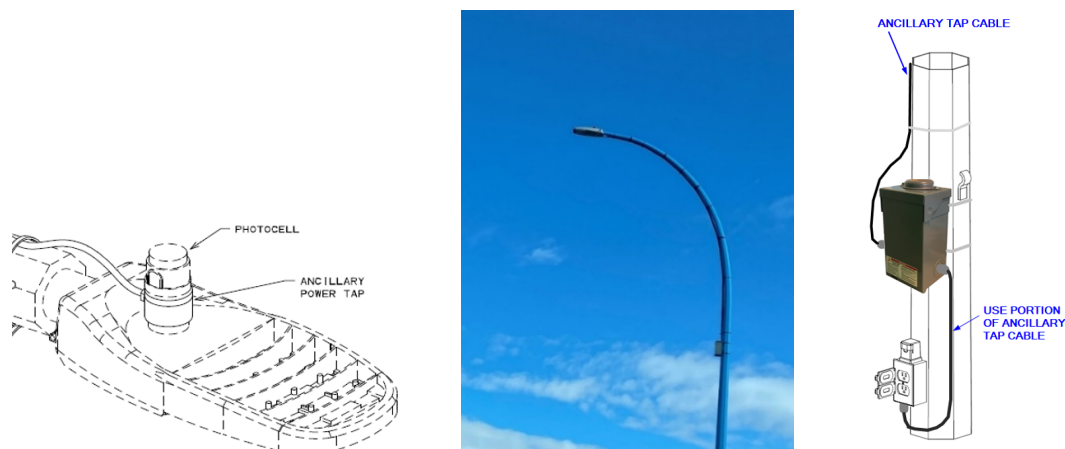


Figure 9: Christmas light servicing on streetlight poles without a nipple

- c) On wood poles. FortisAlberta to install load center on poles complete with service conductors terminated to the secondary distribution line. In addition, FortisAlberta will also install a weatherproof receptacle and terminated to the load side of the load center. The weatherproof receptacle shall be wired as a controlled receptacle (with photo eye). Customer to plugin service conductors of approved device to the weatherproof receptacle.

NOTE: Order standard structure 1404-5.

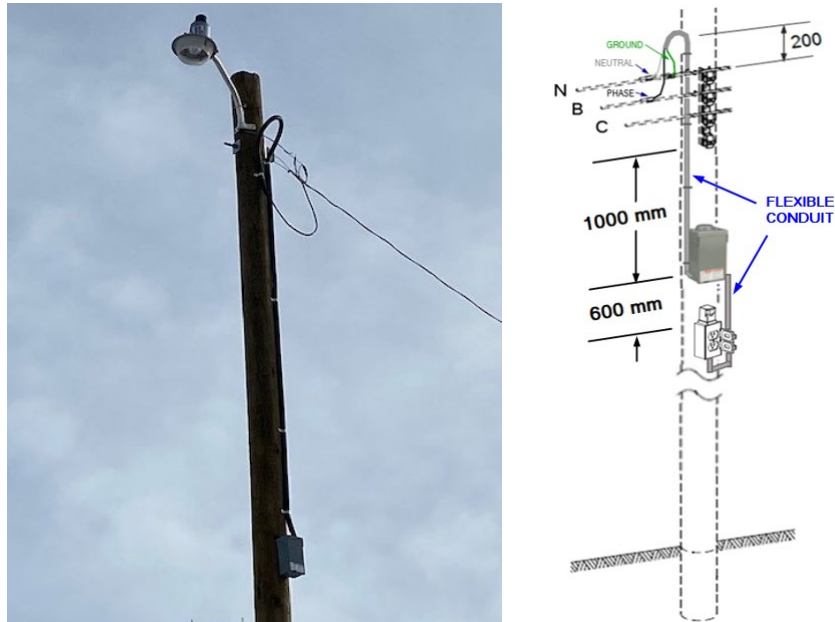


Figure 10: Christmas light servicing on wood poles

## 12.2. Load Center and Demarcation Point of Electric Service

- 12.2.1. The load center must be rated for outdoors, single phase, 2Wire, 15A, 120/240V AC system.
- 12.2.2. The demarcation point of electric service will be at the weatherproof receptacle.

## 12.3. Shutdown Procedures on Equipment and Devices

A power line technician, or any worker performing work on the pole, must first turn the disconnect switch of the equipment or device, if available, to the “off” position

After work on the pole is complete, the power line technician, or any worker performing work on the pole, must turn the disconnect switch of the equipment or device back, if available, to the “on” position.

## 12.4. Customer Notification of Outage

### 12.4.1. Pre-planned Outages (PPO) and Non-Emergency work

The customer must provide an e-mail address to their retailer.

During a pre-planned outage, the customer will receive an automated e-mail from FortisAlberta’s PPO desk two days before the planned interruption date.

The automated e-mail will contain the following information:

- Legal land location of the service
- Closest town or city
- Site ID
- Outage date and time
- Reasons for outage

The customer will have to use their Site ID information to identify the location of their device.

#### 12.4.2. Emergency (power down)

FortisAlberta will not notify the customer in a power down condition.

Power loss due to a power down will typically be reported to FortisAlberta through customer calls.

FortisAlberta will only advise the customer of a power interruption after the customer calls FortisAlberta through 310-WIRE.

#### 12.5. Back-up power devices

- 12.5.1. Small connected devices emitting non-ionizing radio frequencies are not allowed to have back-up power (e.g., battery). Note: A downed pole may not stop a device with backup power from operating, of which may cause hazards to utility workers and public.

#### 12.6. Storage of pole attachments on structures removed or replaced by FortisAlberta

If a project is required by FortisAlberta to remove a pole with pole attachments, the pole attachments will be removed and stored at the FortisAlberta's local office. In addition, FortisAlberta will coordinate with the local municipal representative to pick up their devices.

If a project is required by FortisAlberta to replace a pole with pole attachments, the FortisAlberta representative should coordinate with the local municipal representative to confirm if the existing pole attachment is still required and be replaced to the new structure.

- a) If pole attachments are no longer required, the pole attachments will be removed and stored at the FortisAlberta's local office. FortisAlberta will coordinate with the local municipal representatives to pick up their devices.
- b) If pole attachments are still required, the replacement structure shall be designed to accommodate the structure loadings of the pole attachments. FortisAlberta will remove the pole attachments on the old structure and store it at the FortisAlberta's local office. FortisAlberta will coordinate with the local municipal representatives to pick up their devices. After the pole is replaced, the Municipality shall be responsible to re-install the pole attachments on the new pole.



**Annex A Electric Distribution System Franchise Agreement (Normative)**

## Section 17, Joint Use of Distribution System [B6]

A. *Municipal Use*

*“The Municipality may, upon notice to the Company and upon confirmation from the Company that the intended use of the Distribution System by the Municipality complies with good and safe electrical operating practices, applicable legislation, and does not unreasonably interfere with the Company’s use thereof, make use of the Distribution System of the Company for any reasonable municipal purpose (that is not commercial in nature or that could reasonably adversely affect the Company’s exclusive franchise, as granted by the Municipality under this Agreement), at no charge by the Company to the Municipality, provided at all times that such use complies with the intended use.*

*The Municipality is responsible for its own costs, for the costs of removing any signage or repairing any of the facilities of the company, and any necessary and reasonable costs incurred by the Company, including the costs of any alterations that may be required in using the poles and conduits of the Company.*

*The Municipality may, upon notice to the Company and upon confirmation from the Company that the intended use of the rights of way by the Municipality complies with good and safe electrical operating practices, applicable legislation, and does not unreasonably interfere with the Company’s use thereof, make use of the rights of way of the Municipality, at no charge by the Company to the Municipality, provided at all times that such use of the rights of way complies with the intended use.*

*The Company agrees to act reasonably and in a timely manner in making its determination above. Where a request is made by a Municipality to the Company under this Article 17a), the confirmation, the inability to provide a confirmation along with a reasonable explanation of the reasons why a confirmation cannot be provided, or the reasons for the delay shall, at a minimum, be communicated to the Municipality within five (5) business days of receipt of the request.”*

**Annex B Alberta Electrical Utility Code (AEUC), 5th Edition (Normative)**

This annex contains some applicable code clauses. Refer to the full AEUC for more details.

**2-012 Interference with Systems**

- (1) No person shall interfere with, tamper with, or willfully damage electrical utility systems covered by this Code.*
- (2) Electrical utility system poles and structures shall be kept free of all materials and equipment not required for the system, unless permitted by the operator of the utility system.*
- (3) No person shall make attachments to electrical utility system poles and structures unless authorization has been received from the operator of the utility system.*
- (4) No person shall climb electrical utility system poles or structures or make connections or disconnections to electrical utility system equipment unless the person has been authorized to do so by the operator of the utility system.*
- (5) No person shall enter an electrical utility system generating station, substation, subsurface chamber, equipment room, or similar location unless that person is authorized to enter by the operator of the utility system.*

**2-014 Activities near Overhead Power Lines (See Appendix B.)**

- (1) This Rule applies to activities near overhead powerlines and not the movement of persons, equipment, buildings, vehicles, or objects under overhead powerlines.*
- (2) A person must contact the operator of the utility system before activities other than those in Subrule (1) are undertaken or equipment is operated within 7.0 meters of an energized overhead line to:
  - (a) determine the voltage of the power line; and*
  - (b) establish the appropriate safe limit of approach distance listed in Table 1.**
- (3) Except as provided for in Subrule (4), a person must ensure that the safe limit of approach distance, as established in Subrule (2), is maintained and that no activities are undertaken and no equipment is operated at distances less than the established safe limit of approach distance.*
- (4) A person must notify the operator of the utility system before activities are undertaken or equipment is operated in the vicinity of the power line at distances less than the safe limit of approach distances listed in Table 1 and obtain the operator's assistance in protecting persons involved.*
- (5) Notwithstanding Subrules (1) through (4), Table 1 does not apply to OH&S Part 40 Utility Workers – Electrical.*
- (6) A person must ensure that earth or other materials are not placed under or beside an overhead power line if doing so reduces the safe clearance to less than the Minimum Vertical Design Clearances above Ground or Rails as defined in Table 5 of this Code and the safe limit of approach distances listed in Table 1.*
- (7) A person must follow the direction of the operator of the utility system in maintaining the appropriate safe clearance when conducting activities near an overhead power line.*

*(8) If an activity is being carried out near the safe limits of approach distances specified in Table 1, the person completing the activity shall assign a person to act as an observer to ensure that the safe limit of approach distances will be maintained.*

*(9) A person shall not excavate or perform similar operations in the vicinity of an overhead power line if it reduces the electrical and structural integrity of the power line including associated grounding equipment.*

**Annex C Municipalities in Alberta (Informative)**

There are a few different types of municipalities in Alberta: Urban (Cities, Towns, Villages and Summer Villages), Rural (Municipal Districts some are also called Counties), and Specialized Municipalities, First Nations, Metis Settlements and Improvement Districts.

**C1. Urban Municipal Governments**

- C1.1. Urban municipalities consist of areas where there is a concentration of people and residential dwellings. The Municipal Government Act presents the types of urban municipalities as follows:
- Cities – There are 19 municipalities in Alberta with city status. A city has a population size with over 10,000 people.
  - Towns – There are 107 towns in Alberta. A town has a population of at least 1,000 people and may exceed 10,000 people unless it requests a change to city status.
  - Villages – There are 86 villages in Alberta. A village has a population  $\geq$  300 people.
  - Summer Villages – Same as a village.

**C2. Specialized Municipalities**

- C2.1. There are 6 specialized municipalities in Alberta including Municipalities of Wood Buffalo and Strathcona County.
- C2.2. These municipalities are unique and can be formed without resorting to special Acts of the Legislature.
- C2.3. A specialized municipality can designate a community within its boundaries to be a Hamlet.

**C3. Municipal Districts (County)**

- C3.1. There are 63 municipal districts in Alberta.
- C3.2. A municipal district (also called a county) is a government form in rural areas of Alberta. It includes farmlands, hamlets, and rural residential subdivisions.
- C3.3. A municipal district can designate a community within its boundaries to be a Hamlet.

**C4. Improvement Districts**

- C4.1. The Alberta Municipal Affairs is responsible for all functions of local government in the improvement districts.
- C4.2. Improvement districts include Waterton, specific areas of Banff and Jasper National Parks, Elk Island, Wood Buffalo, Kananaskis Provincial Park, and Willmore Wilderness.

**C5. Metis Settlements**

- C5.1. There are 8 Metis settlements in Alberta, there are 2 within our current services area.

**C6. Special Areas**

- C6.1. Special areas are rural areas in southeast Alberta. There are 3 special areas in southeast Alberta. The population of the Special Areas is about 4,500 people.

**C7. First Nations**

- C7.1. A First Nation is an incorporated municipality and has its own municipal code.

**Annex D Liability Waiver Letter (Informative)**

The following is a sample Liability Waiver Letter.

March 19, 2022

Municipality Name (urban, rural, specialized)

Dear Sirs/Mesdames:

Re: Installation of Security Equipment on FortisAlberta Power Poles

This letter is provided to you in response to a request FortisAlberta Inc. ("FortisAlberta") received from the "**Municipality**" regarding the proposed installation of security cameras (the "Security Equipment") on power poles owned and operated by FortisAlberta within the area of the "**Municipality**".

FortisAlberta does not currently have an agreement with the "**Municipality**" that would allow for attachments of this nature. Specifically, the "**Municipality**" intends to connect the Security Equipment to FortisAlberta's electric distribution system (the "System") to draw power. FortisAlberta does however appreciate that the "**Municipality**" would like to install the Security Equipment as soon as possible and so, in the interests of providing good customer service to the "**Municipality**", FortisAlberta will allow the "**Municipality**" to connect the Security Equipment to the System on the following conditions:

- (1) FortisAlberta will accept no liability for allowing the "**Municipality**" to connect the Security Equipment to the System. The "**Municipality**" shall be liable to and shall indemnify and hold harmless FortisAlberta and its affiliates and the respective officers, directors, employees, consultants and agents of FortisAlberta and its affiliates from and against all claims, actions, losses, expenses, costs or damages of every nature and kind whatsoever (including all legal costs and disbursements) which FortisAlberta and its affiliates and the respective officers, directors, employees, consultants and agents of FortisAlberta and its affiliates, or any of them, may suffer as a result of any acts or omissions in connection with the "**Municipality**"'s connection of the Security Equipment to the System and subsequent operation.
- (2) The "**Municipality**" shall be responsible for complying, and ensuring its servants, agents, employees, contractors, and licensees comply, with any and all applicable laws, regulations, codes, standards, permits, licenses, orders and directions of any governing or regulatory body for connecting the Security Equipment to the System and the subsequent operation and maintenance of the Security Equipment.
- (3) If the "**Municipality**" is in breach of any of the terms and conditions set forth in this letter FortisAlberta may, at its sole discretion elect to either: (a) require the "**Municipality**", at its own expense, to remove any or all Security Equipment attached to the System and the "**Municipality**" shall do so within thirty (30) days of receiving a written demand from FortisAlberta, or (b) remove any or all Security Equipment attached to the System and the "**Municipality**" shall be liable for and responsible to reimburse FortisAlberta for any and all costs incurred to perform the removal.

(4) After the execution of this letter FortisAlberta and the “Municipality” shall in good faith attempt to negotiate a further agreement governing the terms and conditions pursuant to which all existing and future Security Equipment will be connected to the System and subsequently operated and maintained. Upon execution that agreement will supersede and replace the terms and conditions in this letter, such terms and conditions shall automatically terminate at that time.

(5) The quotation attached to this letter must be accepted and paid by the “Municipality” prior to commencing work on the connections. The attached quotation is for work that FortisAlberta must perform on the System to facilitate the placement and operation of the Security Equipment.

(6) To indicate its acceptance of the terms and conditions in this letter the “Municipality” must, prior to commencing work on the connections, have an authorized representative execute and return a copy of the executed letter to the FortisAlberta representative indicated in the header of this letter.

FortisAlberta would be interested in meeting with the “Municipality” in order to reach the mutually acceptable agreement set out in (4) above that would ultimately govern all Security Equipment installed and all future connection of the Security Equipment to the System.

We trust you will find this letter to be satisfactory for the purpose of continuing to move the above-described project forward. If you wish to discuss this matter further with FortisAlberta, please contact me directly.

Sincerely,

Name

Stakeholder Relations Manager

On behalf of the Municipality of the “Municipality”, subject to the conditions described above, I hereby accept FortisAlberta’s offer to permit the “Municipality” to connect its Security Equipment to the System, and I acknowledge that FortisAlberta’s offer is subject to the conditions described in this letter.

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Municipality Representative (Name and title)

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Date

**Annex E Transformer and Voltage Drop Calculations (Normative)**

Applications of small connected devices connecting in FortisAlberta's existing distribution system and meeting the criteria below, will not require an evaluation of transformer loading or voltage drop calculations:

- i. Total additional load of up to 1% of the transformer's rating added to the existing secondary distribution system.

For example: Existing 1-ph transformer is 10 kVA, the maximum allowable load that can be added without the need to check for transformer loading and voltage drop is 90W.

$$10 \text{ kVA} * 1\% = 0.1 \text{ kVA}$$

$$\text{kVA} * 0.9 \text{ (power factor)} = 0.09\text{kW or } 90\text{W}$$

Where an existing secondary distribution system (includes secondary cables and transformer) are found to be overloaded, these projects should be discussed with Asset Maintenance representative for evaluation prior to any additional loads to the system.

**Annex F Bibliography** (Informative)

[B1] FortisAlberta Licensed Occupant (Joint Use) related standards.

- D08-08 – Standards for use by internal FortisAlberta parties.
- D08-08.1 through D08-08.4 – Available to external 3<sup>rd</sup> party joint use communication parties.

[B2] FortisAlberta Joint Use Process, External. Available on the FortisAlberta external website.

[B3] Alberta Electrical Utility Code (AEUC), 5th Edition, Spring 2016

[B4] Occupational Health and Safety Code - Alberta Regulation 191/2021

[B5] Canadian Standards Association (CSA) C22.3 No.1-15, Overhead Systems

[B6] Electric Distribution System Franchise Agreements

[B7] Types of Municipalities in Alberta ([Types of municipalities in Alberta | Alberta.ca](#))

Municipal Franchise Agreement