

DISTRIBUTION COMPANY AWARENESS

This bulletin is intended to provide guidance to Local Distribution Companies (LDC), during emergencies only, when LDC line crews need to decide whether to disconnect a residential customer's service or leave the service energized.

BACKGROUND

During wide spread emergencies such as ice and wind storms, there is a high probability that many overhead customer's services will be damaged by ice, fallen tree limbs, etc.

Completing repairs for a large number of damaged customer's services may take some time depending on the availability of manpower and materials. In order to maintain power, particularly to residential dwellings, and in the interest of public safety, care must be taken when leaving damaged services energized to avoid undue electrical hazards.

In non-emergency situations, this bulletin is not applicable. If the customer's damaged service is creating an electrical hazard, the LDC should disconnect the customer service and advise the customer that repairs are required and an ESA Inspection must be completed before the power can be restored.

GENERAL

This document provides guidance, based on ESA's practices, for LDC line crews when deciding whether to disconnect a damaged customer service or to leave it energized.

The following two factors should be considered to determine whether to disconnect the customer service or not.

- The condition of the conductors and service equipment
- The clearance to roadways, driveways, sidewalks, etc

Where the overhead supply service is damaged, including down on the ground, and still energized, a qualified person needs to assess if anything has been electrically compromised. Each site needs to be assessed on its own safety merits; in some cases disconnection may be required in the interest of public safety.

Note:

Depending on the location of the demarcation point, some overhead supply service conductors will be customer-owned and are subject to the requirements of the Ontario Electrical Safety Code (OESC).

The homeowner or a Licensed Electrical Contractor (LEC) shall complete all repairs of customer equipment, and they must also complete an ESA *Application for Inspection*.

Electrical Distribution Safety

Example 1: Significantly bent metallic customer service mast

When a rigid metallic mast or customer service conduit is broken or significantly bent, the integrity of the conductors may be compromised due to sharp edges inside the mast. In this case the following direction should be taken:

1. For safety reasons the LDC should immediately disconnect the service. No attempt shall be made to straighten the mast or customer service conduit.



2. The LDC may provide a temporary feed directly to the meter base. ESA recommends the following conditions be met if a temporary feed is provided.

- Customer service conductors entering the meter base have a suitable box connector to avoid exposing live parts to the public;
- Temporary supply service conductors are clearly marked and adequately barriered;
- The homeowner has been made aware of the temporary supply service on their property;
- Bare neutral conductors are not exposed or accessible to members of the public; and
- An ESA Hazard Notification has been or will be initiated and the customer has been or will be advised that repairs are required.

(See Electrical Safety Authority Distribution Bulletin #DSB-02-08)

<http://www.esasafe.com/assets/files/esaeds/pdf/dsb/DSB-02-08.pdf>:

ESA DIRECTION

In order to have damaged customer-owned equipment inspected by ESA, the LDC should report the damaged customer service to ESA by notifying the ESA Customer Service Centre so that an ESA Hazard Notification will be created. ESA recommends that the LDC also advise the customer that repairs are required (e.g. Customer Advisory Form).

Electrical Distribution Safety

Example 2: Slightly bent metallic customer service mast

If a rigid metallic mast or customer service conduit is slightly bent, not cracked, and the bend is unlikely to damage the customer service conductor, the service may be left energized if it meets the following conditions:

- The terminals/supports inside the meter base are not damaged;
- Overhead conductors are barriered such that unauthorized persons do not come into contact with them or draw arcs under reasonably foreseeable circumstances; and
- An ESA Hazard Notification has been or will be initiated and the customer has been or will be advised that repairs are required.



ESA DIRECTION

In order to have damaged customer-owned equipment inspected by ESA, the LDC should report the damaged customer service to ESA by notifying the ESA Customer Service Centre so that an ESA Hazard Notification will be created. ESA recommends that the LDC also advise the customer that repairs are required (e.g. Customer Advisory Form).

Electrical Distribution Safety

Example 3: Damaged non-metallic (PVC) customer service conduit

If a non-metallic (PVC) customer service conduit is damaged, either broken or pulled apart, the service may be left energized if it meets the following conditions:

- The conductor insulation is intact;
- The terminals/supports inside the meter base are not damaged;
- Overhead conductors are barriered such that unauthorized persons do not come into contact with them or draw arcs under reasonably foreseeable circumstances; and
- An ESA Hazard Notification has been or will be initiated and the customer has been or will be advised that repairs are required.



ESA DIRECTION

In order to have damaged customer-owned equipment inspected by ESA, the LDC should report the damaged customer service to ESA by notifying the ESA Customer Service Centre so that an ESA Hazard Notification will be created. ESA recommends that the LDC also advise the customer that repairs are required (e.g. Customer Advisory Form).

Other Factors to Consider



1. ESA recommends where possible to use Meter Socket Adapters for temporary connections.



2. It is imperative that the continuity of the neutral conductor be maintained. Loss of neutral continuity may create dangerous voltage imbalances on the customer's service and distribution equipment. The service ground conductor shall not be used as a neutral, even on a temporary basis.

ADDITIONAL INFORMATION

Information requests and follow-up may be directed to ESA at Utility.Regulations@ElectricalSafety.on.ca. For questions on this bulletin please be prepared to quote Bulletin "DB-05/17".