

## Electrical Distribution Safety Regulation - Proposed Amendments

The following regulatory amendments are proposed to the Electrical Distribution Safety regulation.

1. Adjust the mandatory reporting requirements for Local Distribution Companies (LDCs) to include all serious electrical safety incidents involving meters (except events of force majeure). LDCs are currently required to report all serious incidents over 750V. Meters are not currently captured in the regulation as they operate below 750V.
  - These changes are proposed in response to ESA's Meter Safety Due Diligence Review in 2015. After learning of safety concerns with smart meters in Saskatchewan, ESA conducted a review that concluded the systems and processes for reporting and sharing of information about electrical safety incidents involving utility assets can be made more efficient and effective.
  - Additionally, amending the regulation to include all serious incidents involving meters will address a safety gap introduced by new technology that was not previously contemplated in the original regulation.

Currently, serious electrical safety incidents are reported to ESA by LDCs via the attached serious incident reporting form. Should regulation changes be approved, this form would be updated to include serious incidents related to meters. To obtain a copy of the form, please refer to the following link:

[esasafe.com/utilities/guidelines/serious-incidents](https://esasafe.com/utilities/guidelines/serious-incidents)

2. Include a new requirement for LDCs to assist ESA in an investigation of serious electrical incidents. This requirement would apply to assets which are owned by the LDC.
  - This requirement provides ESA with the ability to seek additional assistance from LDCs in the event of a serious electrical incident.
  - A request for assistance could range from clarifying information shared, sharing material evidence, or further technical discussions between ESA and an LDC.
  - This amendment mitigates barriers for ESA when seeking assistance from LDCs.
3. Amend the definition of a "worker" in the regulation to align with the definition in the Occupational Health and Safety Act.
  - In 2015, the definition of "worker" was expanded under the Occupational Health and Safety Act. Amending the regulation to modify the definition of "worker" would provide consistency and clarity for stakeholders.

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4. The ministry is committed to ensuring that regulations reference the current standard where appropriate and propose to update references to two standards in the Electrical Distribution Safety regulation.
  - CSA Standard C22.3 No. 7-94 Underground Systems (update to 2015 version from 1994 version)
    - This standard relates to 'Underground Systems' which are the lines and equipment associated with underground electrical supply and communications systems located entirely outside buildings and fenced supply stations.
  - CSA Standards C22.3 No.1-01 (update to 2015 version from 2001 version)
    - This standard relates to 'Overhead Systems' which are the lines and equipment associated with overhead electrical supply and communications systems located entirely outside buildings and fenced supply stations.
  
5. In addition, it is proposed that two codes be updated in the Electrical Distribution Safety regulation.
  - Rule 86-402 of the Ontario Electrical Safety Code (OESC) (update reference in the OESC to Rule 86-404)
  
  - National Electrical Safety Code C2-1997 (update to 2017 version from 1997 version)

The ministry welcomes feedback on these proposed amendments and encourages anyone interested to provide comments on the proposal.

If you are responding on behalf of a Local Distribution Company, please consider the following questions in your response as we would like to understand the cost impact to administer these changes:

### **Mandatory Reporting:**

1. Do you currently collect data on serious incidents related to meters? If so, are you able to determine how frequently serious incidents occur involving meters in your jurisdiction?
2. Do you anticipate that your organization will incur additional costs to comply with the proposed changes to the reporting requirements? If so, how much?
3. Do you anticipate that the proposed changes will impose additional administrative requirements on your organization? If so, what types and how much? (e.g, more staff time required to report meter related incidents)

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4. Would your organization be able to comply with the reporting requirements by the proposed effective date of July 1, 2017? If not, why? What would be an appropriate time frame to comply with the new requirements?

### **Investigation Assistance:**

5. Does your organization anticipate any challenges to assisting the ESA in an investigation involving LDC owned assets?

### **Updating References to Standards:**

6. Do you have any concerns about the ministry's proposal to update references to out-dated standards and codes in the regulation, including any concerns about safety or cost impacts?
7. Would your organization be able to adopt the new standards by July 1, 2017? Please indicate if your organization would experience any challenges associated with the proposed timeframe.

### **General Comments:**

8. Please submit any other comments you would like to share about the proposed amendments to the regulation.

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1. Investigation Assistance		
<b>Rationale:</b> Provides the Electrical Safety Authority (ESA) with the ability to seek additional assistance from Local Distribution Companies (LDCs) in the event of a serious electrical incident, (e.g., clarifying information shared, etc.).		
Existing Regulation Section	Summary of Change	Proposed Amendments
<p><b>Section 12 Condition of an approval: reporting of serious electrical incidents</b></p> <p>12. (1) It is a condition of an approval issued to a distributor for the use of a distribution system that the distributor, or any contractor or operator acting on the distributor’s behalf, report to the Authority any serious electrical incident of which they become aware within 48 hours after the occurrence.</p> <p>(2) Where a serious electrical incident has occurred, a distributor,...</p> <p>(3) Where a serious electrical incident involving workers only is reported to the Ministry of Labour as required under the <i>Occupational Health and Safety Act</i>...</p>	<p>This amendment mitigates barriers for ESA to seek assistance and undertake activities which enhance public electrical safety and encourage the industry to responsibly enhance electrical safety.</p> <p>A request for assistance could range from clarifying data, sharing material evidence, or technical discussions between ESA and an LDC.</p> <p>This requirement will formalize the existing practice of ESA requesting assistance from LDCs for the purposes of investigating a serious electrical incident.</p>	<p><b>Add the following subsection 3.1 to Section 12:</b></p> <p><b>(3.1) Upon request of the Authority, the distributor or any contractor or operator acting on the distributor’s behalf shall assist in an investigation under Part VIII of the Act into a serious electrical incident that involved any contact with the distributor’s assets</b></p>

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### 2. Definition of “Serious Electrical Incident”

**Rationale:** As meters operate below 750 volts there is no requirement to report any fire or explosion with the meter or related electrical equipment to ESA

Existing Regulation Section	Summary of Change	Proposed Amendments
<p><b>Section 12 (4)</b>                      “serious electrical incident” means,                      (a) any electrical contact that caused death or critical injury to a person,                      (b) any inadvertent contact with any part of a distribution system operating at 750 volts or above that caused or had the potential to cause death or critical injury to a person                      (c) any fire or explosion in any part of a distribution system operating at 750 volts or above that caused or had the potential to cause death or critical injury to a person, except a fire or explosion caused by lightning strike</p>	<p>To increase the effectiveness and efficiency of the systems and processes for reporting and sharing information about electrical safety incidents involving utility assets.</p> <p>Adjust the mandatory reporting requirements for LDCs to include all serious electrical safety incidents involving meters (except events of force majeure). Meters are not currently captured in this requirement as they operate below 750V.</p> <p>Amending the regulation to include all serious incidents involving meters will address a safety gap introduced by new technology that was not previously contemplated in the original regulation.</p>	<p>Revise definition of “serious electrical incident:”                      “serious electrical incident” means,                      (a) any electrical contact that caused death or critical injury to a person,                      (b) <b>any inadvertent contact with any part of a distribution system operating at 750 volts or above or with a meter, if the contact caused or had the potential to cause death or critical injury to a person, but not if the contact was caused by force majeure.</b>                      (c) <b>any fire or explosion in any part of a distribution system operating at 750 volts or above or in a meter, if the fire or explosion, as the case may be, caused or had the potential to cause death or critical injury to a person, but not if it was caused by force majeure.</b></p> <p><b>Add definition of “force majeure”:</b></p> <p><b>Force Majeure includes acts of God, lightning strikes, weather, floods, natural catastrophes, sabotages, riots, invasions, insurrection, acts of terrorism, but does not include labour strikes, fires or explosions.</b></p>

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2. Definition of “Serious Electrical Incident”		
		<p>Add definition of a “meter:”</p> <p>“Meter” means any apparatus used for the purpose of making measurements of, or obtaining the basis of a charge for, electricity supplied to a purchaser.</p>

3. Area of Potential Change: Definition of “Worker”		
<p><b>Rationale:</b> The definition of “Worker” was recently expanded under the Occupational Health and Safety Act.</p>		
Existing Regulation Section	Summary of Change	Proposed Amendments
<p><b>Section 12 (4) –</b>                      “Worker” means a person who performs work or supplies services for monetary compensation but does not include an inmate of a correctional institution or like institution or facility who participates inside the institution or facility in a work project or rehabilitation program</p>	<p>In order to provide consistency and clarity, the definition of “Worker” is suggested to be modified to align with the definition under the Occupational Health and Safety Act</p>	<p>“worker” means a worker as defined in section 1 of the Occupational Health and Safety Act.</p>

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4. Area of Potential Change: Update references to out-dated standards and codes		
Rationale: There are references to out-dated standards and codes in the regulation		
Existing Regulation Section	Summary of Change	Proposed Amendments
<p>Section 5 (2) - Overhead distribution lines that meet the requirements of CSA Standard C22.3 No. 1-01 Overhead Systems...</p> <p>Section 10 (1) - Despite section 4 of CSA Standard C22.3, No. 1-01 Overhead Systems...</p>	<p>Update references to the following standard which was most recently published in 2015:</p> <ul style="list-style-type: none"> <li>• C22.3 No.1-01 - Overhead distribution lines that meet the requirements of CSA Standard C22.3 No. 1-01</li> </ul>	<p>Section 5 (2) - Overhead distribution lines that meet the requirements of <b>CSA Standard C22.3 No. 1-15</b> Overhead Systems...</p> <p>Section 10 (1) - Despite <del>section 4</del> <b>section 5</b> of CSA Standard <b>C22.3, No. 1-15</b> Overhead Systems...</p>
<p>Section 5 (3) - Underground distribution lines that meet the requirements of CSA Standard C22.3 No. 7-94 Underground Systems...</p> <p>Section 10 (2) - Despite sections 4</p>	<p>Update references to the following standard which was most recently published in 2015:</p> <ul style="list-style-type: none"> <li>• C22.3 No. 7-94 - Underground distribution lines that meet the requirements of CSA Standard C22.3 No. 7-94</li> </ul>	<p>Section 5 (3) - Underground distribution lines that meet the requirements of CSA Standard <b>C22.3 No. 7-15</b> Underground Systems...</p> <p>Section 10 (2) - Despite <del>sections 4 and 5</del> <b>section 6</b> of <b>CSA Standard C22.3, No. 7-15</b></p>

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4. Area of Potential Change: Update references to out-dated standards and codes		
and 5 of CSA Standard C22.3, No. 7-94 Underground Systems...		Underground Systems...
Section 5(1) - Rule 86-402 of the Electrical Safety Code (ESC)	The Ontario Electrical Safety Code was updated in May 2016 and sections of the code were renumbered.	86-40 <del>2</del> <u>4</u> of the ESC
Section 5(4) - National Electrical Safety Code C2-1997	Update reference to the National Electrical Safety Code 2017	National Electrical Safety Code <del>C2-1997</del> C2-2017