

Minutes of Meeting June 4, 2020 9:15am – 12:00pm

**Electrical Distribution Safety** 

### Centre for Health and Safety Innovation - 5110 Creekbank Road, Mississauga Utility Advisory Council Members

ULDC/Owner-Operator				
Alectra Utilities	Vicky Khamar			
Burlington Hydro				
Elexicon Energy Incorporated	Arthur Berdichevsky			
Festival Hydro	Jeff Graham			
Hydro One	Darren Desrosiers			
Hydro One - Transmission	Ajay Garg			
Hydro Ottawa	Kyle Smith			
Kitchener-Wilmot Hydro	Greig Cameron			
London Hydro	Greg Sheil			
Newmarket-Tay Power Distribution Ltd.	Gaye-Donna Young			
Orillia Power	Eric Lucier			
Toronto Hydro	Hani Taki			
Government/Regulatory				
CSA Group	Mark Humphries			
IHSA				
Ontario Energy Board	Catherine Ethier			
General Interest				
Bell Canada/Telecom Industry	Tony Pereira			
Consumer Advisory Council	Sandy Manners			
OACETT				
ORCGA/Excavating Industry				
Power Workers Union	Jenn Vautour			

#### **Other Attendees**

Chris Kleberg (Hydro One), Emma Halilovic (Toronto Hydro), Lori Gallaugher (Utilities Standards Forum), Ernie Vidovic (Energy + Incorporated), Kathryn Farmer (Electricity Distributors Association), Rob Koekkoek (Orangeville Hydro Limited), Mike Mason (Orangeville Hydro Limited), Sharmila Uruthiranandasivam (Ministry of Government and Consumer Services), Andrew Matchet (Peterborough Distribution Incorporated), Jamie Monk (Orangeville Hydro Limited), Ryan Zade (Ministry of Energy, Northern Development and Mines), Laurie Reid (Ontario Energy Board)

#### FSA Attendeed

Nansy Hanna, Jason Hrycyshyn, Patrick Falzon, David McConnell, Allison Hawkins, Aisling O'Doherty, Keith Bartlett, Tatjana Dinic



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**Electrical Distribution Safety** 

#### 1 Notice & Quorum

- The meeting had quorum

#### 2 Minutes of UAC Meeting

The following motion was carried:

Motion: To accept the minutes of the June 4, 2019, October 9, 2019 and February 12,

2020 meetings

Motioned by: Ajay Garg Second: Gaye-Donna Young

Motion carried.

#### 3 Open Action Items

- 2019-02-01 Guideline for Distributed Resources v2.0 Review and Comment
  - o Complete
- 2019-02-03 LDC Using Measurements Canada Meter Drawings Compliance With Regulation 22/04. ESA will contact the LDC that raised the issue of using Measurements Canada meter drawings and determine how this LDC is using the drawings, and if using the drawings in this manner would meet the requirements of the Regulation.
  - In progress
- 2019-02-04 Measurements Canada Meter Drawing Signed by a Professional Engineer. ESA
  will contact Measurements Canada to determine if the person signing the drawings is a
  Professional Engineer.
  - In progress
- 2019-03-01 ESA to develop a process for facilitating resolution of conflict between LDCs and a Third Party equipment owner
  - Currently ESA does not have a process in place on how ESA, the LDC and 3rd Party can work together for resolution.
  - o In progress
- 2019-03-02 EV Charging Infrastructure and Regulation 22/04. Update the Bulletin to say that if the OEB recognizes this infrastructure as part of a distribution system then ESA will auto-harmonize.
  - The bulletin has been revised and posted on the <u>ESA Website</u>
- 2020-01-01 Toronto Hydro will create a survey on the use of meter base socket adapters
  to determine the industry best practices when using with different equipment (e.g. 100A
  or 200A meter bases), specifically on the connection of the neutral wires.
  - On the agenda for this meeting



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#### **Electrical Distribution Safety**

- 2020-01-02 Reasonable Locate Information: ESA will communicate with all LDCs more information regarding the requirement to provide "reasonable information" (Section 10(4)). The bulletin will address a scenario where the LDC does not provide locates to their distribution lines within the footprint of a building and what is deemed to be "reasonable information".
  - On the agenda for this meeting

### 4 Recent Legislative Review Panel Report: Access to Passive Infrastructure – Aisling O'Doherty

- ESA engaged the federal government (Innovation, Science and Economic Development Canada) on Access to Passive Infrastructure
  - o CRTC Written Public Submission to the Legislative Review Panel
  - o Canada's Communications Future: Time to Act
- ESA presented concerns and considerations to the government

Action 2020-02-01: ESA will provide the materials presented to the federal government outlining the safety requirements of Regulation 22/04 and considerations to the Recent Legislative Review Panel Report Access to Passive Infrastructure (CRTC Written Public Submission to the Legislative Review Panel and Canada's Communications Future: Time to Act) to the UAC. – Aisling O'Doherty

#### 5 UAC Update: Terms of Reference and Member Terms – Allison Hawkins

- All UAC member terms are up in December 2020
  - All members have been extended the maximum number of times as currently outlined in the Terms of Reference
- An LDC would hold a seat for a maximum of 3 terms, then another company would be given an opportunity to sit on the council
- Once a company is a part of the council they would determine who from their company would be the representative on the council
- The council was asked if there were any updates they would like to see to the Terms of Reference
  - The UAC isn't keen on forced rotations of LDCs if it means that a LDC member would not be engaged in the process

Action 2020-02-02: The UAC has asked that ESA look into updating the Terms of Reference to remove the forced rotation of LDCs from the council. – Allison Hawkins and Nansy Hanna



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**Electrical Distribution Safety** 

### 6 Meter Base Socket Adapters Limitations of Use - Emma Halilovic (Toronto Hydro) (presentation)

- When an event happens and a residential location loses power adapters are used to temporarily provide power
- When using the adapter the neutral wire needs to be run as well, however the terminal lug in the customer meterbase is designed and rated to only accept one wire
- Toronto Hydro sent a survey to LDCs asking how they use these adapters and the responses are varied
- The UAC is asking ESA to develop a best practice in consultation with the LDCs

The following motion was carried:

**Motion:** Strike a committee to discuss meterbase socket (or other solutions) to restore power in emergency situations and produce a best practice that can be utilized by the industry

Motioned by: Emma Halilovic Second: Darren Desrosiers

Motion carried.

Action 2020-02-03: ESA will convene a working group to look at the use of meterbase socket adapters to restore power in emergency situations, the results of which may be a best practice that can be utilized by the industry. Jason Hrycyshyn

### 7 Midspan Structures that Support only the Communication Conductors – Jason Hrycyshyn (presentation)

- A CSA technical committee was struck to look specifically at this issue and report back to the committee
- ESA is not seeking certificates of deviation or similar to be signed by a P.Eng.
  - o ESA will wait to hear the decision from the committee before proceeding
- Changes to the standard would be put out for public review on the CSA website <a href="https://publicreview.csa.ca">https://publicreview.csa.ca</a>

### 8 Update: 3-Phase, 3-Wire, Solidly-Grounded Wye Customer Services – Jason Hrycyshyn (presentation)

- The number of LDCs without a possible configuration of concern increased from 24 to 26



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### 9 Accessibility of Documentation Presentation (AODA Compliance) – Jason Hrycyshyn (presentation)

- Public websites and its content must meet Web Content Accessibility Guidelines by January 1, 2021
- ESA is working to make sure all documents are compliant with this guideline
- If not all content is updated by the end of the year ESA will temporarily remove the content until it has been updated

#### 10 Customer Owned Infrastructure – Keith Bartlett (presentation)

- ESA is looking to engage customer that own high voltage equipment to ensure maintenance is done
- ESA does not have records of customers that own high voltage equipment
- ESA is looking to work with LDCs to identify sites where customers own high voltage equipment to make the customer aware
  - They own high voltage equipment, and
  - This equipment needs to be maintained
- There are 2 ways to get the information to the customer
  - The LDC can provide customer contact information and ESA can send materials to them
  - o ESA can provide materials to the LDC that they can provide to their customer
    - This option had more traction due to privacy concern with the 1<sup>st</sup> option

Action 2020-02-04: ESA will produce materials that can be provided to a customer that owns high voltage equipment and put it in the LDC Toolkit for LDCs to access. The materials produced will talk about owning high voltage equipment and maintenance of high voltage equipment. – Keith Bartlett and Patrick Falzon

#### 11 ESA's COVID-19 Response – Regulatory – Jason Hrycyshyn (presentation)

- ESA has decided to push the audit deadline for all LDCs to July 31, 2020
- ESA has met with the Auditors and has given direction on the use of remote audits during the pandemic
- Several LDCs have indicated they like the remote audit and would like ESA to consider this as a viable option for future audits as well
- Due Diligence Inspections are continuing during the pandemic as this can be done following social distancing requirements



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#### 12 ESA's COVID-19 Response – Operations – David McConnell (presentation)

- ESA shared how inspections have changed to deal with the pandemic
- For up-to-date information on ESAs response to COVID-19 please visit ESAs COVID-19 response page at <a href="https://www.ESSASafe.com">www.ESSASafe.com</a>

#### 13 Excavating Guideline Working Group - Jason Hrycyshyn

- The Excavation Guideline was updated to be an interim guideline to decouple the guideline from TSSA
- ESA would like to reconvene the working group to update the guideline
- ESA will send a request for guideline working group members

#### 14 Inverters: Approval to UL 1741 SA (2016) standard – Tatjana Dinic

- The draft bulletin was reviewed
- The intent of this bulletin is to clarify that ESA will accept inverters certified to UL standard UL 1741 SA (2016 or any subsequent revisions) if a customer installs grid support inverters, as required by the Electrical Distributor. This permission will be effective October 1, 2020 and will be reviewed by ESA when a revised CSA standard for inverters, C22.3 No.107.1, is published.
- There was no objection from the UAC to the October 1, 2020 starting date

#### 15 New Business

- If any members have learning from the COVID-19 response that they would like to share at the next meeting send ESA an email to let them know

**Motion:** To adjourn the meeting

**Motioned by:** Darren Desrosiers

**Second:** Arthur Berdichevsky



### Broadcasting and Telecommunications Legislative Review

Innovation, Science and Economic Development Canada



April 3, 2020

### Agenda

- > Introductions
- Overview of ESA's Role in Electrical Safety in the Province of Ontario
- Discuss Report Recommendations (Access to Passive Infastructure)



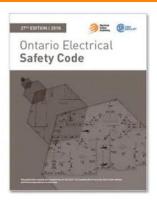
### ESA | About Us

ESA is an Administrative Authority acting on behalf of the Government of Ontario to enhance public electrical safety in the province.

- ESA operates under an Administrative Agreement with the Ministry of Government and Consumer Services
- Specific responsibilities under Part VIII of the Electricity Act, 1998 and the Safety and Consumer Statutes Administration Act, 1996
- Responsible for administering regulation in 4 key areas, including:

Ontario Electrical Safety Code (Reg. 164/99) Electrical Distribution Safety (Reg. 22/04) Licensing of Electrical Contractor & Master Electrician (Reg. 570/05)

Product Safety (Reg. 438/07)









# Electrical Distribution Safety (O.Reg. 22/04)

- Local Distribution Companies (LDCs) are required to comply with O.Reg.
   22/04. There are 63 LDCs in Ontario subject to the Regulation.
- Sets out objective-based electrical safety requirements for distribution systems.
- Requirements related to the design, construction and maintenance of electrical distribution systems (safety standards).
- Requires distribution companies to get approval of equipment, plans, specifications and inspection of construction before putting systems into service. Provides options for getting these approvals.
- ESA reviews audits, incidents and declarations to ensure compliance to safety standards and undertakes inspections to confirm compliance with the Regulation.

Electrical

# BTLRP Recommendations Access to Passive Infrastructure

 Of the recommendations contained in the BTLRP Report, there are a number pertaining to consolidating authority to grant access to passive infrastructure under the Canadian Radio-television and Telecommunications Commission (CRTC)

Passive infrastructure encompasses the civil engineering and nonelectrical structures along which networks and their components are mounted, strung, built, and otherwise supported. <u>It includes support</u> <u>structures like poles, ducts, conduits, and towers of the LDCs.</u>



# Access to Passive Infrastructure LDC Makes Decision to Grant Access to its Infrastructure

Telecommunications Company
Requests Access to LDC Poles

LDC Reviews Request for Access &
Makes Determination

#### LDC consideration when granting access

- LDC required to comply with Electrical Distribution Safety Regulation when making determination to grant access
  - Third Party Guidelines & Bulletins
    - Reference safety standards and industry safety practice

### Looking Ahead

- ESA & ISED to discuss recommendations ...... April 3
- ESA to provide formal submission to ISED ...... To be discussed
- Gov't to review panel recommendations ...... Ongoing
- Monitor progress of recommendations ...... Ongoing



### **Appendix**



### Recommendations #36, #37 & #40 Access to Passive Infrastructure & Safety

#### **Recommendation 36**

The locations at which facilities must now be installed to pursue network deployment have broadened. We recommend that subject to any exclusions the CRTC may determine:

- the CRTC's authority over passive infrastructure should clearly include access to all public property capable of supporting such facilities, such as street furniture;
- the scope of access should include radiocommunication facilities and the telecommunications facilities necessary to operate them;
- the scope of access should also include non-discriminatory access to the support structures of provincially regulated utilities;
- the Telecommunications Act should be amended to authorize the CRTC to mandate access to inside and in-building wire, support structures, and rooftops within and on multi-dwelling unit buildings and be available to all providers of an electronic communications service; and
- the Minister of Industry should assign operational oversight of the radio communication and broadcasting antenna siting process to the CRTC, including managing the interaction with municipalities and land-use authorities.



### Recommendations #36, #37 & #40 Access to Passive Infrastructure & Safety

#### **Recommendation 37**

We recommend that the Telecommunications Act be amended to require the CRTC to consult with the relevant municipality or other public authority prior to exercising its discretion to grant permission to construct telecommunications facilities. We further recommend that the Act be amended to empower the CRTC to review and vary the terms and conditions of access to the support structures of provincially regulated utilities, to ensure non-discriminatory arrangements.



### Recommendations #36, #37 & #40 Access to Passive Infrastructure & Safety

#### **Recommendation 40**

We recommend that the *Radiocommunication Act* be updated to ensure that all types of apparatus, systems, or any other thing that affect safe, secure, reliable, and interference-free radiocommunication in Canada are included in the Act's scope.

We further recommend that the definitions in section 2 and the prohibitions in section 4 be reviewed as a whole to ensure that the following are included:

- apparatus that is intended for or capable of being used for radiocommunication;
- apparatus that unintentionally emit electromagnetic waves or frequencies for purposes other than radiocommunication;
- apparatus that intentionally emit electromagnetic waves or frequencies for purposes other than radiocommunication; and
- apparatus or any other system or thing that can block, interfere with, distort, or alter radiocommunication.



Final Report | January 2020

# Canada's COMMUNICATIONS FUTURE: Time to Act

#### **Link to Report**

http://www.ic.gc.ca/eic/site/11 0.nsf/eng/00012.html







#### Terms of Reference – Updated February 2015

#### **UTILITY ADVISORY COUNCIL (UAC)**

#### Mandate and Role:

This Utility Advisory Council is mandated to provide views and advice the Chief Executive Officer (CEO) and ESA senior management on matters specific to the electrical distribution sector.

The Utility Advisory Council (UAC) will act as an advisory body to provide advice and input to ensure the identification, monitoring and reduction of electrical safety incidents and fatalities in Ontario specific to the Electrical Distribution Safety System. The mandate includes recommendations on new proposals or revisions to the Electrical Distribution Safety Regulation and the associated guideline as well as to provide advice on the impact of the administration of the regulation.

#### **Objectives:**

- Review, refine and clarify the safety objectives identified in the Electrical Distribution Safety Regulation;
- Review, refine and clarify the Electrical Distribution Safety Regulation guidelines;
- Consideration of all proposals or requests for revision to the Electrical Distribution Safety Regulation;
- Advise and assist ESA in its efforts to communicate with members of the Electrical Distribution sector and the public<sup>1</sup>;
- Provide advice on safety policies proposed by the ESA (e.g. Safety Bulletins);
- Provide advice on ways ESA can improve its business services (plan approval, inspection, etc.);
- Identify Ontario Electrical Safety Code or technical issues or concerns for referral to the Ontario Provincial Code Council or other ESA advisory councils for consideration;
- Identify opportunities to improve electrical safety.

#### **Council Structure:**

- The Utility Advisory Council will be comprised of a minimum of 18 members and maximum of 26 members offering expert opinions;
- It is the intent of ESA to ensure that the UAC be comprised of a balanced representation of industry stakeholders;
- Approximately one-half of the UAC will be parties representing local distribution companies with the balance representing various general interests and regulatory interests (regulatory/governmental agencies) according to the following matrix:

<sup>&</sup>lt;sup>1</sup> In this context, 'public' means those outside of the Electrical Distribution sector who are impacted by electrical safety issues. This includes consumers and workers in other sectors who experience electrical contacts, injuries, fatalities, and/or damage and loss.



	Minimum	Maximum
Licensed Distribution Companies/Owner/	9	13
Operator		
General Interest	6	8
Government, Regulatory	3	5

#### **Member Appointments and Terms:**

- The term for Council members is three years. Members may be eligible for reappointment for an additional two terms. Reappointment should be based on member attendance, participation, and continued relevance of the subject area of the member's expertise;
- In order to begin to track membership more accurately, current members, as of October 4, 2012
  will be grandfathered and considered to be starting their first three-year term. After that time,
  there will be a schedule for members to retire in rotation to ensure a balance of experience and
  fresh perspectives;
- As the UAC functions as an advisory body, it is important that members be drawn from among
  the appropriate distribution industry segments. Candidates should possess a strong grasp of the
  electricity distribution sector and be well regarded within the industry. People holding senior
  positions in organizations, associations or firms are considered the preferred candidates;
- Nominations for appointments will generally be obtained through the various organizations or associations that represent the viewpoints of parties affected by the Electrical Distribution Safety Regulations and those interested in promoting safety in the electrical distribution sector;
- General interest members will be selected based on their ability to represent broad constituencies to support ESA's strategic direction;
- Regular participation in UAC meetings is encouraged, however, alternates are acceptable.
   Members who regularly do not attend or send an alternate representative may be asked to resign from the Council.

#### **Appointment of the Chair and Vice-Chair:**

- The Council Chair will be selected by UAC members through a Council voting process. In addition to the election of a Chair, a Vice-Chair will also be elected by the members. Both the Chair and the Vice-Chair must be elected from the membership;
- The Term for the Chair position is two years with the option for the UAC to renew the position for an additional two year term. The Term for the Vice Chair position is two years with the option for the UAC to renew the position for an additional two year term. As of May 24, 2012 the current position of Chair will be grandfathered and considered to be starting the first two year term:



- The members should consider the following criteria when electing the Chair and Vice-Chair:
  - Governance experience;
  - Experience leading teams through decision making processes;
  - Council or Committee experience;
  - Proven commitment to positioning societal perspectives;
  - Experience applying Robert's Rules;
  - Ability to manage and engage others;
  - Time availability to support Council activities.

#### **Voting and Quorum:**

- Generally, the UAC will operate on a consensus-based process. In some circumstances recommendations may be made by a vote of the Council membership;
- Each member of the Council shall be entitled to one vote. Voting by proxy will be permitted
  provided that written notice relative to the proxy has been filed with the Chair prior to the
  meeting. The Chair will only vote in the case of a tie;
- A quorum is required to vote, however it is not required to proceed with the meeting. A quorum shall consist of two-thirds of the voting membership.

#### **UAC Technical Sub-Committees:**

 The UAC may wish to establish technical subcommittees to explore and make recommendations on technical issues that arise. The sub-committee acts only in an advisory capacity to the UAC. The Chairman of the Subcommittee shall be a member of the Council, but the membership of the Subcommittee may include non-members of the Council.

#### **Utility Council Member Expectations:**

- Active participation and willingness to work on a Council;
- It is expected that the various associations, through their member(s) on the Council, will use
  the UAC as a forum for proposing changes and revisions to satisfy the needs of the segment
  of the industry that they are representing and to improve safety;
- Engage members of the electrical distribution industry in the delivery of public electrical safety in Ontario;
- Identify and make recommendations to ESA on ways to improve electrical safety;
- Ability to attend 4 meetings per year. Additional time for conference calls, material review, and participation/integration with other ESA Councils may be required;
- Ability to work in a multi-stakeholder environment;
- Council members will be independent of ESA, and will identify any real or potential conflicts to the chair of the Utility Advisory Council.



#### **ESA Support to Utility Council Members:**

- Quarterly summary of Council activities to ESA's Regulatory Affairs and Governance Committee;
- ESA Advisory Council Orientation Package;
- Additional staff support and training if needed;
- Financial support for out-of-pocket travel expenses to attend committee meetings;
- Council members whose costs are not covered by their employers are eligible to receive a meeting fee of \$250 and the Chair is eligible to receive a \$500 meeting fee;
- Governance training for the incoming Chair;
- Networking support with other members;
- Access to relevant research materials and reports e.g. Ontario Electrical Safety Report and industry research.

#### Meetings:

- The Council meets at least three times per year. Additional meetings may be called at the request of the Chair;
- Meeting agendas and supporting material will be sent to each member one week in advance of the meeting date;
- Draft minutes will be distributed approximately two weeks after the meeting and members will
  have two weeks to propose changes to the draft minutes. The draft minutes (with revisions) will
  be posted to the ESA website within 30 days of the meeting.

#### **Council Reporting:**

- As the Council provides advice to the CEO and Executive Management Team, the Council may provide the CEO with an annual report to communicate:
  - 1. Key accomplishments
  - 2. Emerging issues
  - 3. Performance against annual objectives for the fiscal year.
- This report will ensure full disclosure and reinforce ESA's commitment to transparency and public accountability and should also inform on ESA's ability to support the activities of the Council.

###

#### Attendance of Non-Members at ESA's Advisory Council Meetings:

<u>ESA Board Members:</u> ESA Board members may advise ESA Senior Management or the Chair of the Council that they intend to attend a Council meeting as an observer. However, the Board member has no voting privileges and will be invited to participate in the discussion by the Chair or ESA Senior Management when appropriate.

<u>Public/other:</u> Members of the public or other guests are permitted to attend meetings at the discretion of the Chair and ESA Management. These guests have no voting privileges and will be invited to participate in the discussion by the Chair or ESA or Senior Management when appropriate. Guests should be identified at the outset of the meeting.

<u>ESA Staff and Consultants</u>: Staff, consultants and other professionals retained by ESA are not considered guests at the meeting as they may be required to participate in the discussion to provide opinions and advice. These attendees will be identified to the Chair during the agenda planning process, they will be introduced at the outset of the meeting, and the Chair and ESA management will allow their participation in the discussion when appropriate.

## Meter Socket Adapters for Temporary Connections

Emma Halilovic, P.Eng.
Supervisor – Standards & Materials
Toronto Hydro
June 4, 2020



### **ESA** Recommendation

Residential Consumer's Services Damaged During Emergencies:
Factors to consider by Local Distribution Company (LDC) line crews to either disconnect or leave the consumers' service energized.

Other Factors to Consider

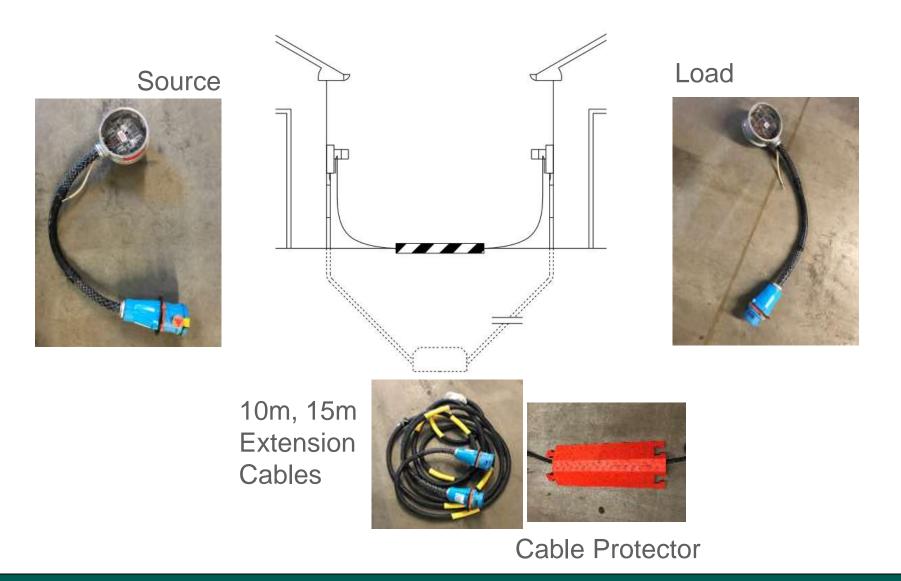
Electrical Safety Authority

In addition, ESA also recommends where possible to use Meter Socket Adapters for temporary connections:

It is imperative that the continuity of the neutral conductor be assured. Loss of neutral continuity may create dangerous voltage imbalances on the consumer's service and distribution equipment. It is not acceptable to rely on the service ground conductor to act as a neutral, even on a temporary basis.

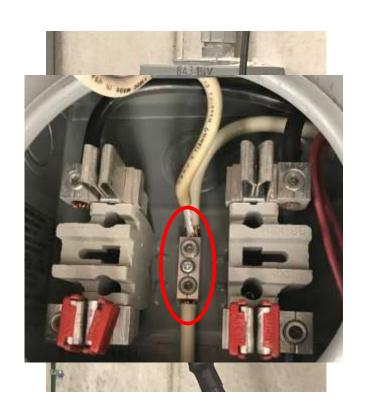


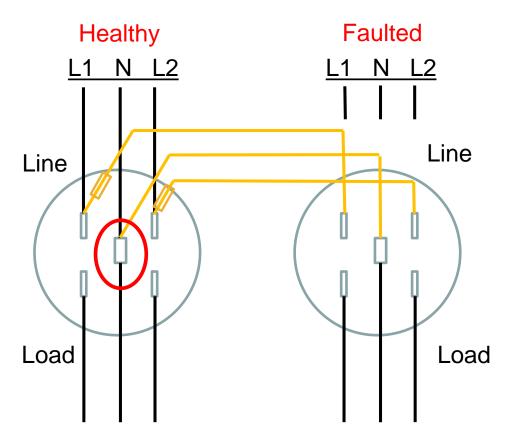
### Meter Socket Adapters - Overview



3 Toronto Hydro

### Meter Socket Adapters - Overview





- Used for Half Power/No-Power Situations 120/240 V
- Meters can be installed

4 Toronto Hydro

### **Utilities - Questionnaire**

- Maximum Service Size for which Meter Socket Adapters are used
- Scenario under which adapters are used:
  - 1) Both phases (L1 and L2) have faulted. Neutral connection is made via adapter to neighbour's service neutral.
  - 2) Only one phase (L1 or L2) has faulted, neutral is confirmed healthy/undamaged. Neutral connection to neighbour's neutral is not made.
  - 3) Only one phase (L1 or L2) has faulted, neutral condition is not verified. Neutral connection is made via adapter to neighbour's neutral.
- As part of installation procedure, do you ensure that both services are fed from the same transformer?

### **Utilities - Feedback**

Feedback	Max Service Size	Scenarios (Single Phase, Both Phases, Neutral)	Neutral Connection (on Healthy/Source Side)	Verify Both Services Fed from Same Transformer (if Neutral is Healthy & Reused)
1	Fused at 90A	All	Double Connection in Lug	Neutral not Reused -> Not Checked
2	Fused at 90A	All	Double Connection in Lug	Neutral not Reused -> Not Checked
3	100 A	All	<ol> <li>Healthy Neutral – Reused</li> <li>Damaged Neutral – Double connection in Lug</li> </ol>	Not checked
4	Fused at 60A (up to 200A)	All	Double Connection in Lug	Neutral not Reused -> Not Checked
5	Up to 200A	All	<ol> <li>Healthy Neutral – Reused</li> <li>Damaged Neutral - Mechanical Connector Used (to bond jumper and service neutral)</li> </ol>	Not checked

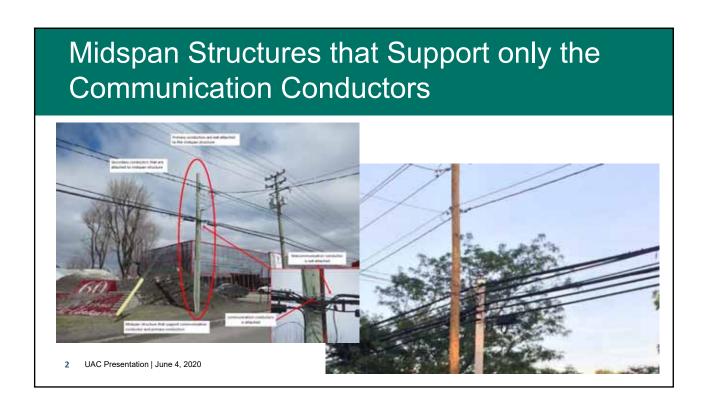
6 Toronto Hydro

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7 Toronto Hydro





### Midspan Structures that Support only the Communication Conductors

#### CSA C22.3 No.1-15 Excerpt

#### 5.8.3.3 Joint-use common structure

Where communication circuits are in joint use with supply conductors rated up to 50 kV, midspan structures that support only the communication conductors shall be avoided. To ensure adequate clearances are maintained, the supply conductors and communication facilities shall be attached to the common structure.

3 UAC Presentation | June 4, 2020

### Midspan Structures that Support only the Communication Conductors

#### Regulation 22/04 - Updated

The Technical Committee for the Overhead Systems standard (C22.3 No.1) has created a Working Group to look into clause 5.8.3.3.

ESA has joined this Working Group and will await the completion of the group's work and the decision from the entire Technical Committee before providing direction on this issue.

Therefore at this time, ESA is <u>not</u> seeking Certificates of Deviation or similar to be signed by a Professional Engineer.

4 UAC Presentation | June 4, 2020



#### **Contact Us**

Electrical Safety Authority
155 Matheson Blvd. West
Mississauga, ON L5R 3L5
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3-Phase 3-Wire Solidly-Grounded Wye Customer Services

### **Update**

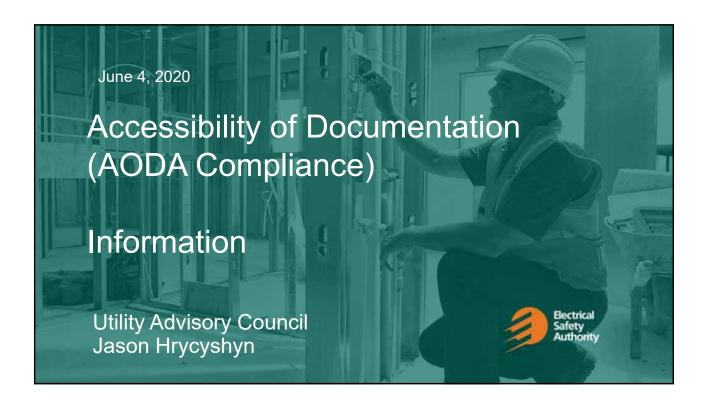
Jason Hrycyshyn
Utility Advisory Council
February 12, 2020



# 3-Phase 3-Wire Solidly-Grounded Wye Customer Services

FLASH NOTICE #1	FEBRUARY 2019	FEBRUARY 2020
Number of Possible Configuration of Concerns	Number of Possible Configuration of Concerns	Number of Possible Configuration of Concerns
~15,000	~10,800	~9,000
Number of LDCs without a Possible Configuration of Concern	Number of LDCs without a Possible Configuration of Concern	Number of LDCs without a Possible Configuration of Concern
12	23	24





### Accessibility of Documentation (AODA Compliance)

Public websites and its content must meet Web Content Accessibility Guidelines (WCAG 2.0), as outlined in the Accessibility Standard for Information and Communications, by January 1 2021.

ESA will be undertaking efforts to verify compliance and/or revise material to meet WCAG.

This may mean that some content is temporarily removed from the website. If this is required, ESA's plan is to post information directing the individual to contact <a href="Utility.Regulations@electricalsafety.on.ca">Utility.Regulations@electricalsafety.on.ca</a>, to obtain missing information.

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### Accessibility of Documentation (AODA Compliance)

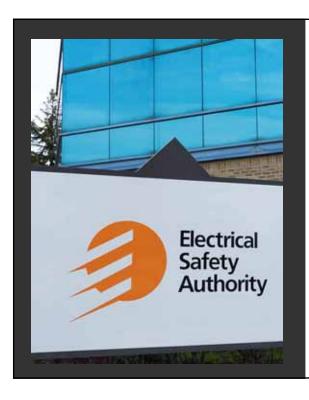
#### Challenges

- Addressing the non-text content, ensuring that image alternatives are addressed.
- · Maintaining as much as possible, 1-Page Bulletin material.

#### **ESA's guidance on AODA**

Some of the measures ESA has introduced to ensure ESA is meeting and exceeding the requirements include:

- · Using at least a 12-point font for Bulletins and Guidelines; and
- Using at least a 16-point fort for Presentations.
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#### Background;

- Throughout the province there are many sites which have customer owned high voltage equipment.
- Not all customers are aware that the equipment is under their care and control
  - Maintenance of the equipment may not be considered
- Some sites may have a hybrid system with imbedded infrastructure to further confuse the owner of their responsibilities

#### Issues;

- Failure of High Voltage equipment can be dramatic
- Will be costly to repair
- May take extensive time to restore power to site
- Failure could result in environmental consequences.
- Might impact utility distribution systems if a fault occurs.
- PRESENTATION NAME | DATE

## Customer Owned High Voltage Equipment

Power outage affects large area of Dundas, Stormont and Russell counties



 ${\tt EASTERN\ ONTARIO-Power\ began\ to\ be\ restored\ in\ large\ area\ of\ Dundas,\ Stormont\ and\ Russell}$ counties this morning after going out around 7:45 a.m.

The electricity flicked back on in Chesterville approximately half an hour later, although the Hydro One outage map still shows a large area without power from Lunenburg in the south, to beyond Casselman and Limoges at the affected region's north end. Over 12,500 customers lost power, with Hydro One predicting a return to full service at 10:45 a.m.

"The cause of the outage was due to third-party equipment," said Hydro One spokesperson Alicia Sayers. "We appreciate our customers' patience as our crews restored power to the area."

Savers added later that the involved equipment behind the outage "was customer owned" and consequently the provincial utility "cannot provide additional details on what caused the outage or where exactly it occurred."

"It is equipment that is connected to our grid," she also confirmed.

'It is dangerous:' Willowdale high-rise loses power as crews battle three-alarm fire



Firefighters are shown nutside a Willowdate high-rise on Thursday right.

5 PRESENTATION NAME | DATE

Chris Fox, CP24.com Published Friday, May 22, 2020 6:06AM EDT Last Updated Friday, May 22, 2020 4:25PM EDT

A 25-storey high-rise in Willowdale lost power overnight as crews battled a stubborn hydro vault fire in its parking garage.

Firefighters were dispatched to the building on Sheppard Avenue east of Yonge Street at around 9 p.m. after its alarms started going off.

Once on scene, firefighters encountered heavy smoke coming from a hydro vault located underground

While crews battled that fire, the building also lost power, leaving residents who were told to shelter-in-place in the dark.

"It is dangerous because the sprinklers were going off in a room full of electricity plus we didn't have any lights in the building and the evac (intercom) system was down until we got a back-up generator running," Acting Deputy Chief Danny MacIsaac told CP24 at the scene. "There was also a challenge in dealing with all the tenants. A lot of them were coming down the stainvell."

MacIsaac said that smoke from the fire eventually migrated up to the top floor of the building through a stairwell.

He said that crews remained on scene all night doing a fire watch. There were no reported injuries

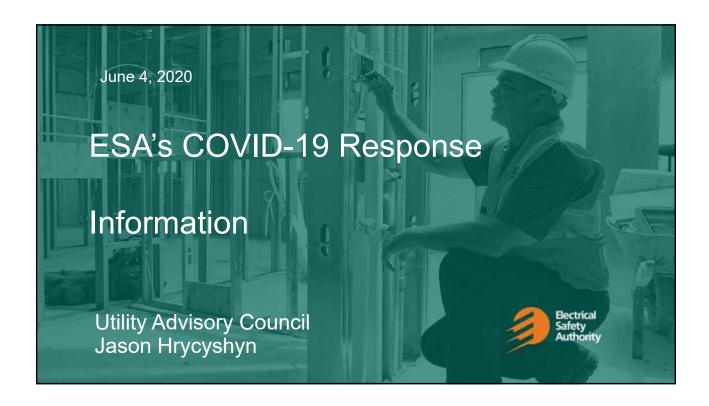
### Customer Owned High Voltage Equipment

#### First Steps;

- Identify the sites where customer owned High Voltage Equipment exists.
- Develop messaging for the owners to initially identify the presence of owned High Voltage Equipment

Suggestions;





# ESA's COVID-19 Response Regulatory

The following are the some highlights to alterations ESA has taken from a Regulatory perspective, since the outbreak of COVID-19.

#### **REGULATION 22/04**

- Audits timelines were moved backward in time. Audit and Declarations of Compliance due dates, for all groups, has been moved to July 31, 2020.
- ESA is recommending **Remote Audits** be performed. ESA's feedback from Auditors is that Remote Audits work. How smoothly the Audit goes appears highly dependant on the Electrical Distributor's Audit Coordinator.
- See Distributor Bulletin **DB-03-20** (Updates for Audit and Declarations of Compliance) for more information.

# ESA's COVID-19 Response Regulatory

#### ONTARIO ELECTRICAL SAFETY CODE (OESC)

- ESA has published "Guidance Regarding Inspections".
  - Addresses "Priorities for Inspection", "Remote Assessment/Inspection" and "Inspections in Homes".
- ESA also published guidance for "Temporary Residential Facilities (TRFs)" and "Temporary Emergency Health Care Facility (TEHCF)".
  - Addresses the new measures to allow governments and municipalities to re-purpose existing facilities, or build temporary structures to quickly meet local needs.
- See the "ESA Response to Novel Coronavirus (COVID-19)" for more information. A link can currently be found on the ESA internet homepage (https://esasafe.com).
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### **Guiding Principles**

- •Stay focused on our Vision, Mission and Values. We are an **Ontario Safety** organization.
- •The physical and psychological well-being of our team is a **top priority**.
- •We have a responsibility to **reduce potential** future harm to our team and our broader communities.
- •Hold ourselves accountable to the highest standard of ethical and professional behaviour.
- •Ensure the <u>electrical safety of all Ontarians</u> continues during these unprecedented times.
- •Working together with our peers, the provincial government, safety partners to ensure we are implementing the best business and safety practices.
- •We will stay informed and share thoroughly verified, **accurate and timely information** in order to reduce the concerns from misinformation.
- •We will **stay prepared** for both the immediate, short-term impacts and also for the longer term scenario.

## COVID19 Response – CSC/Regions

- 100% of CSC staff Work From Home, transition over weekend
- Guidance to Field → physical inspections
  - · Alternative Methods: photo, video, meet installer offsite
- Exceptions as needed for High(er) Risk areas
  - · Long Term Care Homes and Seniors residences
  - Hospitals
  - · Retirement Homes
  - Day Care facilities
  - · Personal Dwellings
- 3 ESA Operations to UAC June 4 2020

#### From Outset: March 15

- Work from home commences, access restrictions
- Priorities for Inspection:
  - Emergency and public safety infrastructure equipment.
  - Connection authorizations, organized through Licensed Electrical Contractors so people can receive electrical service from their Local Distribution Company
  - Disconnect and Holds, organized by Licensed Electrical Contractors and known in the industry as a "Disconnect and Hold". This will allow Local Distribution Companies to facilitate service upgrades, emergency panel changes and service repairs
- Non Contractor Disconnect and Hold notifications pushed out 30 days
- 4 ESA Operations to UAC June 4 2020

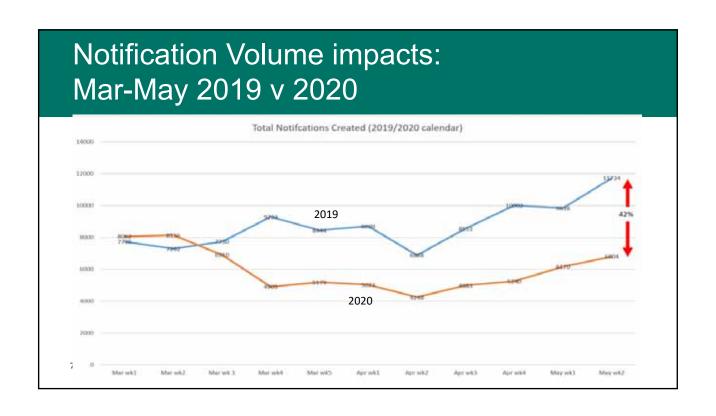
## March/April

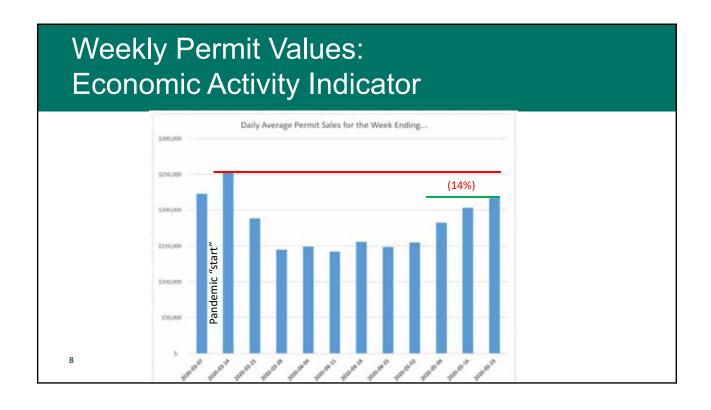
- March 24: Guidance for newly built homes
  - To allow real estate transactions to close on unoccupied properties
- March 31: Guidance for CSS Site access
  - Scheduled CSS inspection appointments where access possible
- April 14
  - classroom training courses and Master Electrician Examinations postponed
- 5 ESA Operations to UAC June 4 2020

### May to date

- Guidelines for Residential Inspections published
  - · Vacant for 2 hours prior to inspector entering
- Photo/Video Procedures published
  - Attestation by applicant/site contact
- Field Playbook published

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## Observations



Home Dialysis Temporary Emergency Healthcare facility



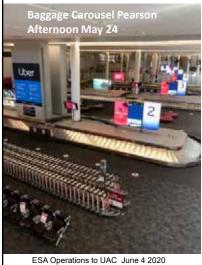
Hand Sanitizer Production line

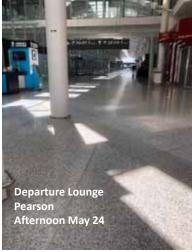


Portable Wash Station Housing Development (with hazards)

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## Observations

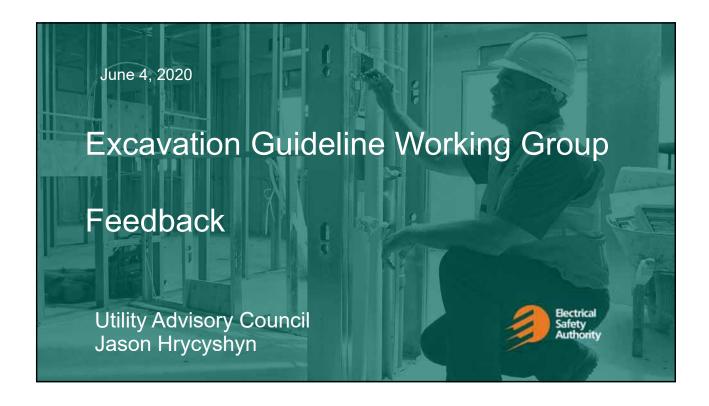






5





## **Excavation Guideline Working Group**

ESA is looking to revisit the current Excavation Guideline

- In January 9, 2019 ESA produced an "Interim Guideline" in order to decouple the guideline from TSSA.
- ESA is looking to reconvene the Working Group to produce a new revision.
- · Scope of Work
  - Review excavation material (CCGA \ ORCGA Best Practice);
    - Section 4-0 entitled "Excavation Best Practices"
  - Review Regulation 22/04 requirements (Section 10);
  - · Review current guideline
- 2 UAC Presentation | June 4, 2020

## **Excavation Guideline Working Group**

#### ESA previous Excavation Guideline Working Group Members

- 1. Lloyd Frank
- Kitchener-Wilmot Hydro Inc.
- 2. Ed Jambor
- London Hydro Inc.
- 3. Gaye-Donna Young Newmarket-Tay Power Distribution Limited
- 4. Frank Zechner
- Ontario Sewer & Watermain Construction Association
- William Schwarz
- W.O. Schwarz Consulting
- 6. Mike Scarland
- TSSA
- 7. Dave Garland
- Hydro Ottawa Limited

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# Excavation Guideline Working Group

#### ESA is looking for feedback:

- · Would there be enough interest in the current FY to address this?
- - Any suggestions on the best way to reconvene a Working Group?
  - Any suggestions on timing to start a Working Group?
  - Any suggestions on organizations ESA should reach out to?
  - · Any suggestions on meeting (Zoom, Google Meet, email with an ESA seed document, etc...)?
  - Other



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