



Centre for Health and Safety Innovation - 5110 Creekbank Road, Mississauga

Utility Advisory Council Members

ULDC/Owner-Operator

| | |
|---------------------------------------|---------------------|
| Alectra Utilities | Vicky Khamar |
| Burlington Hydro | |
| Festival Hydro | Jeff Graham |
| Alectra Utilities | Vicky Khamar |
| Hydro One | Darren Desrosiers |
| Hydro One - Transmission | |
| Hydro Ottawa | Edward Donkersteeg |
| Kitchener-Wilmot Hydro | Greig Cameron |
| London Hydro | Greg Sheil |
| Newmarket-Tay Power Distribution Ltd. | Gaye-Donna Young |
| Orillia Power | Eric Lucier |
| Toronto Hydro | Emma Halilovic |
| Veridian | Arthur Berdichevsky |

Government/Regulatory

| | |
|----------------------|-----------|
| CSA Group | |
| IHSA | Dean Dunn |
| Ontario Energy Board | |

General Interest

| | |
|------------------------------|--|
| Bell Canada/Telecom Industry | |
| Consumer Advisory Council | |
| OACETT | |
| ORCGA/Excavating Industry | |
| Power Workers Union | |

Other Attendees

Alex Braletic (Newmarket Tay Power Distribution Ltd), Kathryn Farmer (EDA), Mateen Khan (Ministry of Energy), Mike Ploc (Peterborough Distribution Inc), Paul Harasym (Energy+), Lori Gallagher (USF)

ESA Attendees

Normand Breton, Nansy Hanna, Patrick Falzon, Esau Habibulla, Jason Hrycyshyn, Aisling O'Doherty



1 Notice & Quorum

- The meeting did not have quorum

2 Open Action Items

- | | |
|------------|--|
| 2019-02-01 | Guideline for Distributed Resources v2.0 Review and Comment. Guideline completed |
| 2019-02-03 | LDC Using Measurements Canada Meter Drawings Complianace 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. In progress <ul style="list-style-type: none">- LDCs would like to see ESA take a more active approach in having the customer make the necessary changes on their side |
| 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. EV Charging is on the agenda for discussion. Bulletin completed. |

3 Nansy Hanna - Senior Director Engineering & Regulations

- Normand Breton has move to Director of Product Safety
- Nansy Hanna will be assuming the role of Senior Director Engineering & Regulations which will now be responsible for Regulation 22/04



4 2020 Regulatory Oversight Cost Recovery (O. Reg 22/04) – Esau Habibulla

- The formula used to calculate the Regulatory Oversight Cost Recovery for Regulation 22/04 has not changed
- (Minimum Fee of \$1,100) + (\$0.215 x Number of Customers) + (\$0.00044 x Distribution Revenue)
 - o Number of Customers and Distribution Revenue is obtained from the Yearbook of Electricity Distributors, produced by the OEB
- In 2020, some Electricity Distributors will notice an increase in billing, where the last two years there may have been a decrease
- In general, total billings increased over the last three years less than inflation

5 Temporary Residential Meter Base Socket Adapters – Emma Halilovic (Toronto Hydro)

- Toronto Hydro was asking the UAC for feedback on how the neutral is connected in the meter base when a meter socket adapter is used. This usually happens in cases where a consumer's underground service is damaged and the LDC is trying to get power back on until a repair can be made
 - o In the meter base the neutral connector is tested to accept 1 conductor under a set screw over a range of conductor sizes, but not to multiple conductors
 - o There are a lot of legacy 100A meter bases in Toronto that do not provide enough physical space for 2 neutral wires to be connected
- Toronto Hydro is in the process of designing the procedure for the use of meter base socket adapters and want to make sure the connections are made correctly and safely and do not exceed the limitations of the equipment being used
- Toronto Hydro was asked if they are looking to have ESAs "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" document updated
- Toronto Hydro would like to see ESAs recommendation to use meter socket adapters for temporary connections updated to outline the limitations on using this product
- ESA to create a survey and distribute to the USF's Executive Director and non USF LDC contacts

ACTION ITEM 2020-01-01: ESA will distribute 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. – Jason Hrycyshyn

6 Risk Based Oversight (RBO) Update – Mark Taylor

- An update on RBO was provided to the UAC
- The Authorised Contractor Program (ACP) will not exist after May 1, 2020, instead all Licensed Electrical Contractors will have the opportunity to qualify for the benefits that were provided under ACP, such as pre authorized connections



- The LDCs asked if all Electrical Contractors would lose status to receive pre authorized connections until they built up statistics under the new program. ESA stated that the existing history of Electrical Contractors would be used to make the initial assessments.
- The LDCs had an opportunity to be involved in a webinar that outlined the changes LDCs would see once RBO came into effect
- ESA plans on further communicating the changes to all stakeholders through a newsletter and in the publication Plugged In
- A demonstration of the Contractor Locator Tool was provided

7 Information: 3-Phase, 3-Wire, Solidly-Grounded Wye Customer Services – Jason Hrycyshyn

- Auditors are aware of this program and they may be asking the LDCs about it
- ESA was asked if all LDCs are following their plans, or if they have deviated from their plans, and if LDCs have deviated how ESA has been addressing this
 - o ESA has seen some LDCs deviate from their plans and ESA plans to maintain focus on this initiative and follow-up with LDCs as needed

8 EV Charging Infrastructure and Regulation 22/04 – Jason Hrycyshyn

- ESA has updated this bulletin with the feedback from the previous UAC meeting
- The revised bulletin is posted on the [ESA website](#)

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

- [CRTC Written Public Submission to the Legislative Review Panel](#)
- [Canada's Communications Future: Time to Act](#)
 - o Recommendations 36 and 37 from the report appear to have the most impact on LDCs
 - o ESA is reviewing the entire report to understand the impact of all the recommendations made
- ESA will be responding to this report
- The UAC would like to see this item as a standing item at the UAC for the foreseeable future

10 Inside vs Outside of Buildings - Bulletin DB-06-16 – Jason Hrycyshyn

- Distributor Safety Bulletin DB-06/16 outlines how LDCs meet the required Safety Standards for electrical utilities located inside buildings, under Sections 4&5 of Regulation 22/04.
- CSA C22.3 No.1 & 7 are expected to change scopes that include areas inside of buildings, where they are employed by a utility in the exercise of its function as a utility
- ESA is reviewing the potential change internally and after the analysis will follow-up with the UAC



11 Interesting Photos from the Field – Jason Hrycyshyn

- Pictures of infrastructure left in an unsafe manner were shared

12 Locate Information: Reasonable Information – Jason Hrycyshyn

- ESA had an instance where a LDC was found to be not compliant with section 10(4) of the Regulation
- The Distributor had a long standing practice of not providing locates for their distribution equipment that existed within the footprint of a building
- The Distributor was not found to be in compliance with Regulation 22/04 and the “reasonable information” clause found in Section 10(4), because this practice was not clearly identified on the information provided to the excavator
- The UAC was in agreement that a LDC locate should indicate where the locate ends, and if a LDCs standard practice is to not locate their infrastructure in the footprint of a building this should be clearly indicated

ACTION Item 2020-01-02: 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”. – Jason Hrycyshyn

13 Midspan Structures that Support only the Communication Conductors – Jason Hrycyshyn

- CSA C22.3 No.1-15 Excerpt
 - o 5.8.3.3 Joint-use common structure
 - o 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
- With “Midspan Structures” the CSA Technical Committee was in favour of keeping the current requirement, “as is”. The Technical Committee discussed fatalities that resulted from distribution conductors not attached to midspan structures.
- The UAC discussed a certificate of deviation signed by a P.Eng (Bulletins [DB-02/16](#) and [DIB-11/12](#))
- ESA will submit questions to the CSA Technical committee to clarify this clause and review
- Auditors may note this on their Audit Report, however ESA will not issue a Non Compliance at this time

14 Bulletin: DB-01/20 - Previous Editions of the Overhead and Underground Standards – Jason Hrycyshyn

- This bulletin has been published to the ESA [website](#)



15 Guideline for Distributed Energy Resources v2.0 – Jason Hrycyshyn

- This Guideline has been published on the ESA [website](#)

16 Maintenance Standard- C22.3 No.11 (Z463 Alternative) – Jason Hrycyshyn

- LDCs were excluded from the scope of the CSA Standard Z463
- Work has begun on a new Maintenance Standard- C22.3 No.11 with a scope applicable to Electricity Distributors
- There is the potential that this new standard could be a replacement for Appendix C of the Distribution System Code, currently used to assess compliance with the maintenance component of Regulation 22/04

17 Powerline Safety Campaigns – Borjana Bulajic

- On wrap-up of the previous year Powerline Safety campaign was done
- Overview of the upcoming Powerline Safety campaign and Powerline Safety Week was shared

18 2019 Auditor Debrief – Jason Hrycyshyn

- The [2019 Auditor Debrief](#) presentation was reviewed at a high level
- There was a question about a P.Eng. signing off on software (e.g. “SPIDA Calc”, “PLS Pole”)
 - o ESA is looking into producing a bulletin or guideline on this topic. Currently, ESA views construction software like a standard or specification (Section 7) and is looking for the software to be approved, and if needed there may be limitations noted.

Motion: To adjourn the meeting

Motioned by: Arthur Berdichevsky

Second: Gaye-Donna Young

Distribution Regulation Fee Summary

- The Distribution Regulation fee charged by ESA is based on the following variables:
- Number of Customers:** \$0.215 per customer
- Distribution Revenue:** \$0.00044 per dollar of revenue
- Minimum Fee:** Flat fee of \$1,100 per organization

| XYZ Electricity Distributor | Base | Charge Rate | Fee |
|-----------------------------|--------------|-------------|-----------------|
| Minimum Fee (Flat Fee) | | | \$1,100 |
| Total Customers | 50,000 | \$0.21500 | \$10,750 |
| Distribution Revenue | \$20,500,000 | \$0.00044 | \$9,020 |
| Total Fee | | | \$20,870 |

1



Additional Information

- In 2020, some Electricity Distributors will notice an increase in billing, where the last two years there was a decrease
- ESA has not changed the formula or charge rates
- ESA obtains data from Ontario Energy Board's "Yearbook of Electricity Distributors"
- In general, total billings increases averaged over the last three years are less than inflation

2





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 |

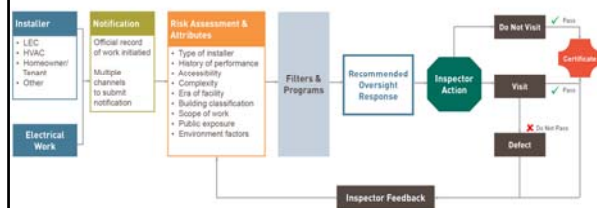
2 February 14, 2019



Risk-based Oversight (RBO)

What is Risk-based Oversight (RBO)?

In May 2020, ESA will process electrical wiring applications using the RBO safety risk model.

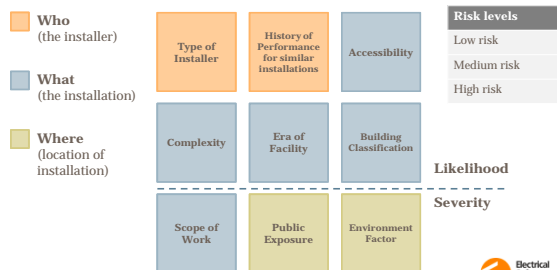


2 UAC Feb 2020



Wiring Work will be risk rated, low, medium or high.

Oversight of electrical installations is based on an assessment of the safety risk of the installation.



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What does this mean for LDCs?

All contractors in Ontario will operate under a Risk-based Oversight approach. This means:

- All contractors have the same opportunities
- The Authorized Contractor Program will end. Contractors will no longer be identified using the ACP label
- We understand that some LDCs will only hire ACP contractors. If this is the case, assess the impact this will have on procurement policies or processes
- ESA will still offer ACP-like benefits to all contractors in Ontario – but they must meet certain conditions

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Preauthorized Services Eligibility

| Preauthorized Services | |
|--|---|
| Service Changes, Upgrades, Repairs | |
| Notification Volume | Residential Pre Authorization |
| | <ul style="list-style-type: none"> Five (5) residential service change, repair or upgrade notifications and scheduled within the past 12 months Limited to changes, repairs, upgrades "New" services are not considered in notification volume count |
| Defect Ratio | ICIA Pre Authorization |
| | <ul style="list-style-type: none"> Five (5) ICIA service change, repair or upgrade notifications and scheduled within the past 12 months Limited to changes, repairs, upgrades "New" services are not considered in notification volume count |
| Audit Ratio | |
| 1.5 - Disconnect / Reconnect or 1.1 - Disconnect / Hold | |

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Preauthorized Service Connections Residential

| Scope of Work | | Preauthorized Reconnections |
|--|---|-----------------------------|
| Residential Service Upgrades / Alterations | Single family dwelling: \leq 200A 120/240 1PH Existing multi-ganged meter-base repair/upgrade \leq 200A 120/240 1PH <u>Note1:</u> Residential service >200A is not eligible <u>Note2:</u> Conversion from a single gang meter base to a multi-ganged meter base (or vice-versa) is considered to be a new service and not eligible | Yes |
| | Apartment Service Upgrades / Alterations | No |

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Preauthorized Service Connections ICIA

| Scope of Work | | Preauthorized Reconnections |
|-------------------------------------|---|-----------------------------|
| ICIA Service Upgrades / Alterations | \leq 400A, 120/240V 1PH or 120/208V 3PH <u>Note1:</u> Does not include conversion from 1PH to 3PH or vice-versa <u>Note2:</u> Does not include Delta Wye Conversion | Yes |

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Programs Eligible for Preauthorized Connections

| Programs Available for Selective Inspection | Visit Ratio | Eligibility Requirements | | | Pre-authorization Eligible |
|--|---|----------------------------|-------------------|------------------------------------|----------------------------|
| | | Wiring Notification Volume | Time period | Defect Ratio | |
| High Voltage Substation Maintenance | 1:5 | 10 specific to the program | 12 months rolling | \leq 4% | ✓ |
| Low Voltage Service Maintenance | 1:5 | 10 specific to the program | 12 months rolling | \leq 4% | ✓ |
| Poleline Maintenance | 1:5 | 10 specific to the program | 12 months rolling | \leq 4% | ✓ |
| Central Metering | 1:5 | 10 specific to the program | 12 months rolling | \leq 4% | ✓ |
| Permanent Generators | 1:5 | 10 specific to the program | 12 months rolling | \leq 4% | ✓ |
| Pools & Hot Tubs | 1:5 | 10 specific to the program | 12 months rolling | \leq 4% | ✗ |
| Residential Small Jobs (1-10 Devices) | 1:10 | 10 of any kind | 12 months rolling | \leq 10% | ✗ |
| Industrial/Commercial/Agricultural Small Jobs (1-20 Devices) | 1:10 | 10 of any kind | 12 months rolling | \leq 10% | ✗ |
| Residential HVAC | 1:10 | 10 HVAC specific | 12 months rolling | Quality Assurance System 1.10 2.10 | ✗ |
| Retrofit Luminaires | 1:10 (up to 50 luminaires) 1:5 (51-200 luminaires) | 10 specific to the program | 12 months rolling | \leq 4% | ✗ |

1:5 = 1 visit for every 5 notifications | 1:10 = 1 visit for every 10 notifications | 2:10 = 2 visits for every 10 notifications

Benefits Incorporated into RBO

In May 2020, all contractors will benefit from RBO and be eligible for:

- Pre-Authorized Connections
- After Hours Emergency Connections
- Same Day Emergency Connections

ACP Contractors receive selective inspection – which means they can often get work done and passed without waiting for the ESA Inspector. Under RBO, available to all LEC.

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Defect Ratio

A defect ratio is:

- Number of defective sites/number of sites visited
- Recalculates at the end of each month

Technical defect counts as 1 defect

Warning defect will be included but at a 1/5th value, meaning 5 Warnings are the equivalent of a standard technical defect

Administrative defects, such as No Access are not counted towards the defect ratio

10 UAC Feb 2020



Hiring Eligible Contractors

How do we know if the contractors we hire are eligible for these benefits?

- ESA will clearly identify the contractors that are eligible for on ESA's website – "Pre-Authorized Eligible"
- There is no "grandfathering" for current ACP contractors
- Contractors will be assessed for eligibility every 3 months

Demo link to Find a Contractor

11 UAC Feb 2020



Next steps

Contractor Training

Winter 2020

- Webinars
- Monthly Information Releases
- ESA Website Updates
- RBO Guide Book




RBO Launch

May 2020

12 UAC Feb 2020





Thank You
Questions?



EV Charging Infrastructure and Regulation 22/04

Update

Jason Hrycyszyn
Utility Advisory Council
February 12, 2020




EV Charging Infrastructure and Regulation 22/04

Last UAC meeting ESA requested feedback on the 2016 Bulletin addressing EV Charging Infrastructure and Regulation 22/04.

ESA agreed to review a change to the bulletin to address the possibility where the EV Charging Infrastructure could be deemed “part of the distribution system”.

Action Item Completed: ESA published a revised Bulletin (r1) for DB-04-16 r1 which included the suggestion by the UAC.




EV Charging Infrastructure and Regulation 22/04

Excerpt from DB-04-16 r1

In the event that the OEB has determined the status to be a distribution asset, at any point in time, then ESA will automatically harmonize with the OEB decision and will consider the equipment to “be part of the distribution system”.


As suggested by this Council the wording above is similar to the wording used in the “Guideline for Energy Storage and Generation” also known as “Guideline for Distributed Energy Resources (DER)”.



Broadcasting and Telecommunications Legislative Review

Report Update

Aisling O'Doherty & Jason Hrycyshyn
Utility Advisory Council
February 12, 2020



Final Report | January 2020

Canada's COMMUNICATIONS FUTURE: Time to Act


Link to Report
<http://www.ic.gc.ca/eic/site/110.nsf/eng/00012.html>

Broadcasting and Telecommunications
Legislative Review

2

Context

- In 2018, the Federal government requested that the Broadcasting & Telecommunications Legislative Review Panel develop recommendations on legislative changes to enable the digital age to bring benefits to Canadians and the Canadian economy.
- The seven-person panel was appointed to consider changes to the *Broadcasting Act*, *Telecommunications Act* and *Radio Communication Act*.
- On January 29, the independent Legislative Review Panel issued it's final report.
- The Report contained **97** recommendations for the federal government on how to modernize the current legislative framework.



Highlight | Access to Passive Infrastructure & Safety

- Of the 97 recommendations, there are a number pertaining to **consolidating authority to grant access to passive infrastructure***
- Recommendations relating to Access Infrastructure seek to support accelerating the roll-out of advanced networks (e.g. 5G):
- In sum, the report proposes that access would be granted to all forms of public property, such as lampposts and utility poles, for passive infrastructure. The granting authority would rest with CRTC.
- Safety is ESA's main priority. The Electrical Distribution Safety regulation outlines safety requirements for the safe use and maintenance of distribution systems in Ontario.
- ESA is examining the recommendations to determine any impact on O.Reg. 22/04. It is important that safety continues to be a key consideration.
- ESA flagging this report to UAC members. UAC members may choose to conduct own review of the report to identify impacts to their organizations.

*Passive infrastructure encompasses the civil engineering and non-electrical structures along which networks and their components are mounted, strung, built, and otherwise supported. It includes support structures like poles, ducts, conduits, and towers of the LDCs.

Next Steps

Anticipated Next Steps by Federal Government

- Gov't to review panel recommendations - Ongoing
- Gov't to determine which recommendations it will proceed with – Late 2020 (anticipated)
 - Drafting of legislation
 - Legislative review & approval process
- Gov't may consult with provinces to identify any interactions with existing provincial legislation / regulations before enacting changes – TBC

ESA Next Steps

- ESA to continue to track progress of recommendations, identifying any considerations from a safety perspective
- ESA to seek opportunities to engage with the Federal Government & CRTC to ensure impacts are understood
- Include status of these recommendations as standing item on UAC agenda

5



APPENDIX

6



Key Recommendations

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.

7



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.

8





Inside vs Outside of Buildings – Bulletin DB-06-16

Feedback

Jason Hrycyszyn
Utility Advisory Council
February 12, 2020



Inside vs Outside of Buildings – Bulletin DB-06-16

Highlights

- Bulletin entitled “Regulation 22/04 or Ontario Electrical Safety Code?”
<https://www.esasafe.com/assets/files/esaeds/pdf/dib/DB-06-16-OESC-and-Reg22-04-Requirements.pdf>
- Bulletin identified that the CSA standard's for C22.3 No.1 & 7 had scopes that ended inside of buildings. Therefore, once inside a building the OESC was the only option to satisfy Section 5 of Regulation 22/04.
- The 2020 versions of the CSA standards are expected to have scopes that include areas inside of buildings, where they are employed by a utility in the exercise of its function as a utility.




Inside vs Outside of Buildings – Bulletin DB-06-16

ESA foresees a need to revise the bulletin if the expected scope is found in the 2020 version of the standards.

Does the council have any recommendations or feedback for ESA regarding this possible scope change?







Electrical
Safety
Authority

Interesting Photos from the Field


Information

Jason Hrycyszyn
Utility Advisory Council
February 12, 2020





Interesting Photos from the Field



2





Interesting Photos from the Field



3



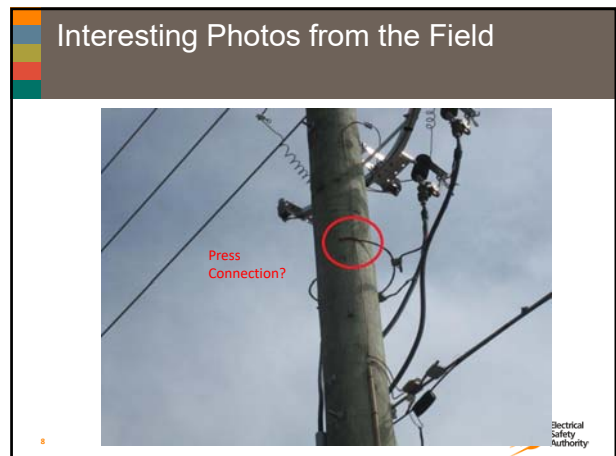


Interesting Photos from the Field



4









Locate Information- Reasonable Information

Feedback

Jason Hryciyshyn
Utility Advisory Council
February 12, 2020



Locate Information- Reasonable Information

Regulation 22/04 Excerpt

Proximity to distribution lines

10. (3) Before digging, boring, trenching, grading, excavating or breaking ground with tools, mechanical equipment or explosives, a contractor, owner or occupant of land, buildings or premises shall, in the interests of safety, ascertain from the distributor responsible for the distribution of electricity to the land, building or premises **the location of any underground distribution line that may be interfered with in the course of such activities.** O. Reg. 22/04, s. 10 (3).

(4) The **distributor shall provide reasonable information** with respect to the location of its underground distribution lines and associated plant within a reasonable time. O. Reg. 22/04, s. 10 (4).



2

Locate Information- Reasonable Information

The Distributor had a long standing practice of not providing locates for their distribution equipment that existed within the footprint of a building.

The Distributor was not found to be in compliance with Regulation 22/04 and the “reasonable information” clause found in Section 10(4), because this practice was not clearly identified on the information provided to the excavator.



3

Locate Information- Reasonable Information

ESA is interested to hear feedback from the UAC on this topic.

- On the interpretation of Section 10;
- On any communications to other Electricity Distributors (Bulletin, Guideline Revision); or
- Other



4



Midspan Structures that Support only the Communication Conductors

Feedback

Jason Hryciyshyn
Utility Advisory Council
February 12, 2020



Midspan Structures that Support only the Communication Conductors



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.



Midspan Structures that Support only the Communication Conductors

Regulation 22/04

If an Electricity Distributor is allowing this practice on their distribution systems, ESA is looking for a Certificate of Deviation or similar to be signed by a Professional Engineer.

For more information on how to demonstrate compliance with Regulation 22/04 in situations such as this, ESA recommends reviewing the information in ESA Bulletin DB-02-16 entitled "Certificate of Deviation – Certified Lists".



Slide 2

HJ1 The overhead systems standard does not deal with processes between utility and telecom. Such methods as part of construction practice shall be avoided in the standard. The utilities will be required to increase the height or replace the pole in given situations.

Hrycyshyn, Jason, 07/02/2020

HJ2 TC Chair asked on committee's view on Trigenex's questions for internal discussion:

Does it meet the standard? No

Do you see any security issue? Yes

Hrycyshyn, Jason, 07/02/2020



Midspan Structures that Support only the Communication Conductors

Comments

- This has similarities to the discussion this council had with respect to "Poles in Roads", however this is different.
- With "Poles in Roads" the CSA Technical Committee was interested to discuss and this resulted in an upcoming change to C22.3 No.1.
- With "Midspan Structures" the CSA Technical Committee was in favour of keeping the current requirement, "as is".
- The Technical Committee discussed fatalities that resulted from jurisdictions incorporating this practice.



Electrical
Safety
Authority



Previous Editions of the Overhead and Underground Standards

Update

Jason Hryciyshyn
Utility Advisory Council
February 12, 2020



Previous Editions of the Overhead and Underground Standards

Highlights

All work is categorized into the following which is designed to align with the CSA standards:

1. New Line Sections (e.g. new lines to new areas)
2. Replacements (e.g. non-structure & structure)
3. Alterations (e.g. moving, rejuvenating, repairing)
4. Additions (e.g. adding communications)
5. Upgrades (e.g. voltage conversion work)

General direction is provided for 7 different generic scenarios.

Specific examples are provided for 8 different scenarios.

Note: Structure is defined as "the main supporting unit for a supply line and/or communication line (e.g. the pole or tower)."



2

Previous Editions of the Overhead and Underground Standards

Examples

Generic Scenario:

6. Altering or adding new structural loads to a structure that were unaccounted for by the original design shall comply with the current Standard editions or the Standard editions identified in Regulation 22/04.

Specific Example:

LDC is adding a new transformer on an existing pole, where this new structural load was unaccounted for by the original design. This is deemed as an addition of a new structure load unaccounted for by the original design (6) and it needs to comply with the current edition of the Standards or the Standard editions identified in Regulation 22/04.



3

Previous Editions of the Overhead and Underground Standards

Last UAC meeting ESA and the Council agreed that a review period of the DRAFT Bulletin would be until the end of November.

ESA received comments from three (3) Electricity Distributors. No suggested revisions were received and the Bulletin has been posted to ESA's website, as presented in the previous UAC meeting.

As always if there are questions, comments or feedback ESA is always interested to hear your thoughts. The main contact method to reach us is via email at Utility.Regulations@electricalsafety.on.ca.




4



Distributed Energy Resources Guideline

Update

Jason Hryciyshyn, P.Eng
Utility Advisory Council
February 12, 2020




Distributed Energy Resources

Version 2.0

Version 2.0 was published on the ESA website, in early February.

Link to the Guideline:
<https://www.esasafe.com/utilities/guidelines/energy-storage-generation>



2



Maintenance Standard- C22.3 No.11 (Z463 Alternative)

Information

Jason Hryciyshyn
Utility Advisory Council
February 12, 2020



Maintenance Standard- C22.3 No.11 (Z463 Alternative)

Generation, Transmission, Distribution and Communication Utilities were excluded from the scope of Z463-2018 standard.

Hence, a new CSA standard on maintenance of utility systems is being initiated, which is C22.3 No.11.

ESA is interested in this standard's suitability as a way to address the "maintenance" clause in Regulation 22/04. A potential replacement for the DSC's Appendix C.



Maintenance Standard- C22.3 No.11 (Z463 Alternative)

Project Background

- As a result of significant concerns raised by SCOPE* (Steering Committee) members, Electric Utilities and Communication Utilities were excluded from the scope of Z463-18 "Maintenance of electrical systems".
- The above exemption was granted with the understanding that Part III Members are committed to:
 - work collaboratively on a New Edition of the CSA Z463 Standard as soon as reasonably possible by having electric and communication utilities actively participate in the direct development of that standard product; **or**
 - have electric and communication utility maintenance requirements developed under the Part III portfolio of standards, that can be referenced in the New Edition of the CSA Z463.

* Strategic Steering Committee on Power Engineering and Electromagnetic Compatibility (SCOPE)



Maintenance Standard- C22.3 No.11 (Z463 Alternative)

Regulation 22/04 Excerpt

Safety standards

4. (1) All distribution systems and the electrical installations and electrical equipment forming part of such systems shall meet the primary safety standard set out in subsection (2) by meeting the safety standards set out in subsections (3), (4), (5) and (6). O. Reg. 22/04, s. 4 (1).
- (2) All distribution systems and the electrical installations and electrical equipment forming part of such systems shall be designed, constructed, installed, protected, used, **maintained**, repaired, extended, connected and disconnected so as to reduce the probability of exposure to electrical safety hazards. O. Reg. 22/04, s. 4 (2).




Maintenance Standard- C22.3 No.11 (Z463 Alternative)

Scope of the Standard

*This Standard specifies requirements for the maintenance of electrical and telecommunications supply equipment and systems owned by electric and telecommunication utilities. This Standard applies to **new and existing** electrical equipment where they are employed by a utility in the exercise of its function as a utility.*


*The requirements of this Standard are intended to facilitate the safe, reliable, and cost-effective operation of electric equipment and systems, owned by electric and telecommunication utilities, through the application of consistent maintenance practices that **address worker safety, public safety.***

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Maintenance Standard- C22.3 No.11 (Z463 Alternative)

The meetings for the Working Groups of this standard started in January 2020.

Lori Gallagher is the Chair
Claudia Hamza is the CSA Project Manager

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UAC Advisory Council: Powerline Safety Wrap Report 2019

Communications and Stakeholder Relations

February 12, 2020




Overview

The 2019 Powerline Safety Week campaign was divided into two categories:

- An occupational campaign targeting haulage and equipment operators, in addition to dump truck drivers, who are the number one cause of powerline contracts; and
- A public campaign targeting potential new partners and municipalities across Ontario.

Research on previous campaigns found that ESA materials resonated most with B2B audiences. Based on this information a new program was developed to target arborists.



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Objectives: Powerline Safety Week



- Expand Distribution**
Build off the success of last year's campaign to engage at-risk groups to enhance powerline safety.
- LDC Support**
Support LDCs in raising awareness of powerline safety hazards.
- Trusted Expert**
Position ESA as reflective and expert in identifying and understanding powerline hazards and incident tracking.
- Engage Partners**
Encourage partners to be advocates for powerline safety within their industry.



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Material Distribution

Direct Mail

As with last year's campaign:

- distributed safety packages to construction and dump truck companies across the province
- offered LDCs the opportunity to order materials upon request.
- updated and expanded our distribution in 2019 to include 7,453 additional records across the province.

| AUDIENCE | PACKAGES SENT | ORDERS | MATERIALS DELIVERED |
|----------------|---------------|--------|---------------------|
| BUSINESS | 9,700 | 128 | 3,000 |
| MUNICIPALITIES | 433 | 28 | 1,500 |
| LDCs | N/A | 3 | 825 |
| TOTALS | 10,133 | 159 | 5,325 |



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Material Distribution

| LOCATION | TOTAL |
|---------------------|------------|
| Peterborough | 57 |
| Clarington Area | 49 |
| Oshawa | 34 |
| Norwood-Havelock | 31 |
| Apsley | 14 |
| Lakefield | 14 |
| Keene-Bailieboro | 12 |
| Ajax | 9 |
| Pickering | 8 |
| Millbrook | 8 |
| Douro | 7 |
| Port Perry-Uxbridge | 5 |
| Port Hope | 4 |
| TOTAL | 252 |

Porta Potty Posters

Once again, we partnered with Johnny on the Spot in the Kawarthas to post posters in porta potties on construction sites in the Kawartha Lakes and Durham regions. From May to July, 252 porta potties had the Powerline Safety infographic Posted.



Material Distribution

LDCs

- LDCs were provided a toolkit with social posts, a sample news release and visuals to share with their customers during Powerline Safety Week
 - The result: 91 posts from 29 LDCs; LDC follower count avg: 9,799
- LDCs were also provided the opportunity to order the same materials offered to construction companies, dump truck operators and municipalities.



Earned Media

14,769,200 media impressions spanning across broadcast television, online and radio media.

Non-Occupational (General Public):

- Secured three *The Weather Network* broadcast television segments that were also posted on theweathernetwork.com
- Secured *Breakfast Television Toronto* live-eye with four live segments
- Coordinated radio interviews with Joel Moody and Steve Smith, resulting in a total of 49 radio clips
- Online articles as a result of radio interviews and media outreach on RenfrewToday.ca, PembrokeToday.ca, ArnpriorToday.ca, KitchenerToday.com, StThomasToday.ca, MyTimminsNow.com, MyKapuskasingNow.com and MyCochraneNow.com

Occupational:

- Realty Times*, *Electrical Industry* and *MyHomepage.ca* online articles
- Powerline safety mention in *Renovation Contractor* June e-newsletter



Earned Media

Audio News Release

- Focused on non-occupational message to reach homeowners as they prepared for spring cleaning
- Picked up by radio stations across Ontario from May 16 – June 19

Results

- Picked up by **23** radio stations
- 711,000** impressions



Video On Demand Campaign Summary

- Video on demand via Bell Media was added to extend to audiences with alternative television habits and a fragmented lifestyle
- VOD spots ran within popular CTV programming (Canada's #1 conventional network)
 - Targeting was skewed M18-49, and all programming is specifically selected by each viewer allowing for higher attention

| Booked Impressions | Delivered Impressions | Index |
|--------------------|-----------------------|-------|
| 1,011,905 | 1,014,755 | 100% |

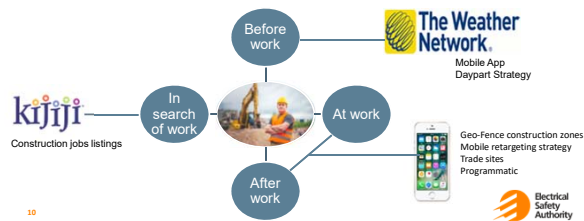
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Digital Campaign Objective

Campaign objective was to raise awareness on powerline safety among construction workers and homeowners in contextual environments.

Campaign Flight: April 8 – May 19, 2019



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Online Screenshots: Kijiji



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Online Screenshots: Construction Canada



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Campaign Summary

Overall, the campaign delivered a total of 10MM impressions and 25k clicks, resulting in an average campaign CTR of 0.25%.

Compared to the 2018/2019 Powerline safety campaign, this year's campaign saw a stronger CTR of 2.5x. (0.10% last year vs. 0.25% this year).

| Vendor | Impressions | Clicks | Click Through Rate |
|------------------------|-------------------|---------------|--------------------|
| Addictive Mobility | 2,777,922 | 10,082 | 0.36% |
| CO2 | 4,825,071 | 7,499 | 0.16% |
| Construction Canada | 9,872 | 3 | 0.03% |
| dailycommercialnews.ca | 136,263 | 47 | 0.03% |
| Electrical Business | 56,283 | 34 | 0.06% |
| inPowered | 452,755 | 6,064 | 1.34% |
| Kijiji | 1,955,085 | 1,913 | 0.10% |
| TOTAL | 10,213,251 | 25,642 | 0.25% |

Television Campaign Review - Fall

Campaign objective was to continue to drive awareness of the powerlines message via mass media channels during the key

Fall period

Flight: October 14 x 6 Weeks

Media: Regional Selective

Broadcast, VOD

Placement: :15s :30s

Target: Men 18-49

SPORTSNET

CP 24



Global

OMNI TELEVISION



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Broadcast Campaign Performance

FALL CAMPAIGN ACTIVITY (OCTOBER/NOVEMBER)

| Station | Length | Spots | Total Impressions (000) | GRPs |
|--------------|--------|------------|-------------------------|------------|
| Sportsnet ON | 15 | 161 | 1343.0 | 40 |
| Sportsnet ON | 30 | 93 | 579.0 | 15 |
| CP24 | 15 | 78 | 2895.0 | 44 |
| CP24 | 30 | 31 | 797.6 | 19 |
| Global | 15 | 20 | 784.0 | 25 |
| Global | 30 | 18 | 244.0 | 8 |
| OMNI | 30 | 82 | N/A | N/A |
| VOD | 15 | N/A | 566.7 | N/A |
| VOD | 30 | N/A | 242.9 | N/A |
| TOTAL | | 554 | 7452.2 | 151 |

70% of impressions allocated to B2B

30% of impressions allocated to B2C



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Objectives: Arborists



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Arborists – Material Distribution

Direct Mail

Replicating the strategy for Powerline Safety Week:

- Coordinated with Exact Data to develop a targeted list for arborists and tree care companies
- Developed a list of Forestry Department contacts for municipalities where powerline contact is the highest
- Distributed a package of materials to the contacts noted above with:
 - Stakeholder letter
 - Redesigned creative assets specifically for arborists

NOTE: ESA managed the printing and distribution of materials via CF&R. As of October 2019, the order numbers resulted in:

- 675 stickers
- 525 postcards
- 275 ladder hangers



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Arborists – Material Distribution

Stakeholder Outreach

Identified organizations to reach out to share the revised creative materials with, and inquire about additional opportunities to collaborate on content development.

Article developed by Patrick Falzon was pitched out to the following organizations to include in their newsletters:

- International Society of Arboriculture, Ontario Chapter
- Arborist Safety Work Practices
- Landscape Ontario Horticultural Trades Association
- Ontario Association of Landscape Architects
- Ontario Professional Foresters Association



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Business to Business



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Business to Consumer



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Powerline Safety Week 2020



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Thank you!



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