

PLUGGED IN

FALL 2021



Technically Speaking | p.6

Take a closer look at the proposed changes on GFCI receptacles in the 2021 OESC



Licensing Matters | p.9

Kijiji pilot updates now available



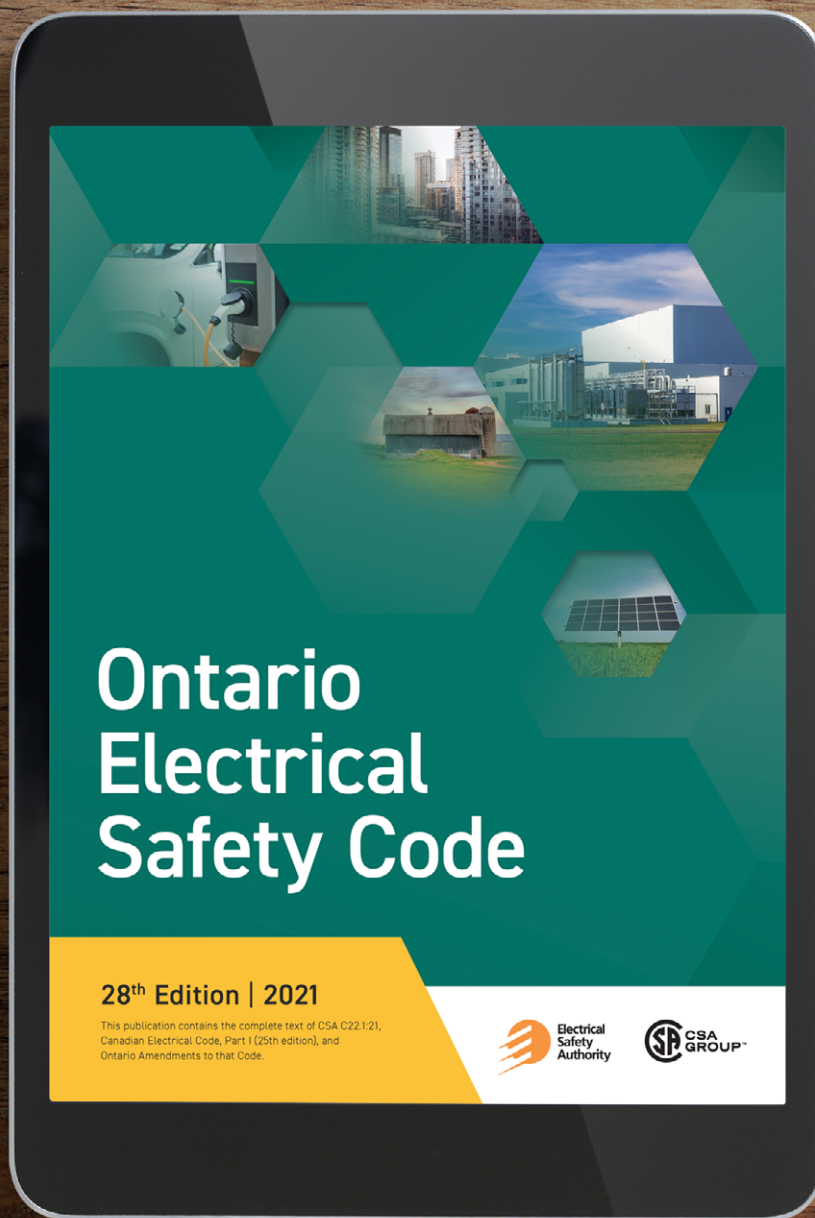
Code Conundrum | p.16

Can you solve the Code Conundrum?



**Electrical
Safety
Authority**

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Year-To-Date Convictions

May 1, 2021 – Oct. 31, 2021

UNLICENSED ▼

Sergyi Petrusenko, operating as Spok Home Renovation, Stittsville

Renovations at 5 different locations

- \$10,000 fine, plus \$2,500 victim surcharge – no Electrical Contractor (EC) Licence

5007540 Ontario Ltd., operating as DSC Linx Inc., Toronto

Commercial renovation

- \$3,000 fine, plus \$750 victim surcharge – no EC licence

Taisir Sharif, Toronto

Commercial renovation

- \$3,000 fine, plus \$750 victim surcharge – no EC licence

Ryan Nickle, Peterborough

Office lights and receptacles

- \$3,000 fine, plus \$750 victim surcharge – no EC licence
- \$3,000 fine, plus \$750 victim surcharge – unsafe electrical conditions

Alexander Bonello, operating as Btek Renewable Energy Products, Tottenham

Previously convicted, Solar work

- \$3,750 fine, plus \$937.50 victim surcharge – no EC licence
- \$3,750 fine, plus \$937.50 victim surcharge – rebuilding unapproved circuit breaker

Archie Hill, operating as JWS Contracting, Inkerman

Basement wiring at two locations

- \$3,000 Fine, plus \$750 victim surcharge x two counts – no EC licence
- Total \$6,000 Fine, plus \$1,500 victim surcharge

Ontario Corporation 2473339, operating as N & R Plumbing and Heating Ltd., Toronto

Lighting installation

- \$3,000 fine, plus \$750 victim surcharge – no EC licence
- \$2,000 fine, plus \$500 victim surcharge – failure to apply



ELECTRICAL SAFETY ENFORCEMENT

Year-To-Date Convictions (Continued)

May 1, 2021 – Oct. 31, 2021

UNLICENSED ▼

Rumi Ablachim, Toronto

Lighting installation

- \$3,000 fine, plus \$750 victim surcharge – no EC licence
- \$2,000 fine, plus \$500 victim surcharge – failure to apply

Sumeet Kalia, Brampton

Advertising electrical contracting services using an LECs number

- \$500 fine on three counts – propose to carry out the services of an EC
- \$1,000 fine, plus \$250 victim surcharge x three counts – hold himself out to be the holder of an Authorization
- Total fine \$3,500 Fine, plus \$750 victim surcharge

Adam Davidson

Advertising electrical contracting services

- \$500 fine

Khalid Mahmood

Advertising electrical contracting services

- \$500 fine

Abi-Nahed Charbel

Advertising electrical contracting services

- \$500 fine

Mohammed Oubari

Advertising electrical contracting services

- \$500 fine

Georgopoulos, Dimitri, Toronto

Advertising electrical contracting services

- \$500 fine – advertising while unlicensed

Kambiz, Kherad, Toronto

Advertising electrical contracting services

- \$500 fine – advertising while unlicensed



ELECTRICAL SAFETY ENFORCEMENT

Licensing Enforcement at a Glance

ESA Licensing Enforcement undertook a number of new enforcement activities for the period of April 1, 2020 – March 31, 2021. Given ESA's continued response to the ongoing Covid-19 pandemic, and the reaction to the Court system shutting down proceedings, many changes have been implemented to ensure regulatory compliance for both licensed and unlicensed

contractors. New measures such as electronic document filing and virtual Court appearances have enabled ESA to continue enforcement activities throughout the Pandemic. Enforcement activities include Notices of Violations, Investigations and Prosecutions.

The full results are presented in the table below for the period: April 1, 2020 – March 31, 2021.

APRIL 1, 2020 – MARCH 31, 2021

Results



UNLICENSED CONTRACTOR ACTIVITY

1,944

Notices of Violation

98

Number of Investigations

10

Number of Convictions

\$3,500

Total Fines (including
suspended sentences*)



LICENSED ELECTRICAL CONTRACTORS

9,160

Licensed Electrical Contractors

14,874

Master Electricians

68

Licences Suspended

26

Licences with Conditions



Licensing Enforcement at a Glance (Continued)

*Suspended Sentences:

For greater clarity, after a person has been convicted of an offence, a suspended sentence means that the Court has taken into consideration certain factors that allow the punishment to be passed later if the person re-offends. Some factors the Court would consider are a sincere expression of remorse, and an expression of desperate financial circumstances. Evidence to support the suspending of a sentence include the affect the sentence will have on the person's dependants, including spouse, children, parents and grandparents that the person supports, and the likelihood that the person would ever commit the offence again. Throughout the Pandemic, Courts have consistently suspended the passing of a sentence based on the economic downturn, and that the impact of imposing higher fines on convicted persons contributes to excessive financial hardship as a result.

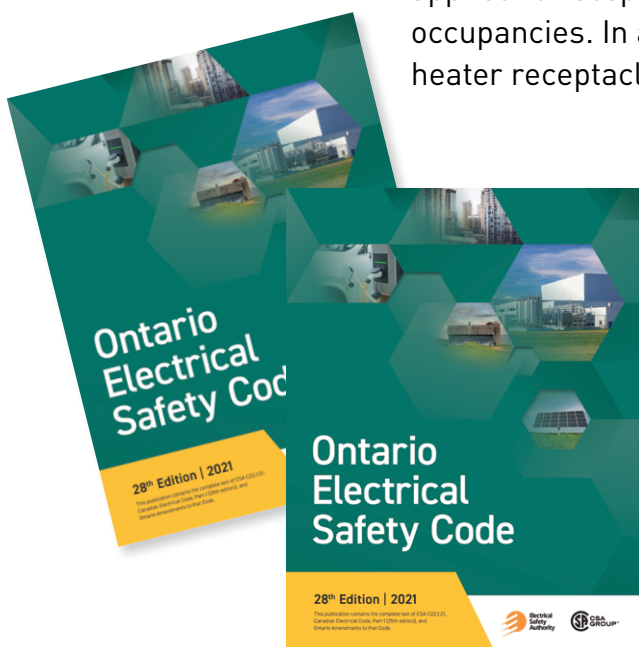
Proposed Changes to the 2021 Ontario Electrical Safety Code (OESC)

As we prepare for the adoption of the 28th edition of the OESC pending approval from the Ministry of Government & Consumer Services, let's explore some of the proposed changes.



Rule 26-704 – Protection of Receptacles by a Ground Fault Circuit Interrupter of the Class A Type

One of the changes in the OESC is a revision to Rule 26-704 Protection of receptacles by a ground fault circuit interrupter of the class A type and the removal of Rule 26-722 Protection of residential occupancy receptacles installed outdoors by a ground fault circuit interrupter of the Class A type. The revision to Rule 26-704 includes a new sub-rule that requires all outdoor receptacles located within 2.5 m of finished grade to be protected by a Class A GFCI. The significance of this change is the requirement will apply to all outdoor receptacles, including locations such as parks or commercial buildings. Rule 26-722 previously only applied to receptacles located outdoors of residential occupancies. In addition, the exception for vehicle heater receptacles has been removed.



Proposed Changes to the 2021 Ontario Electrical Safety Code (OESC) (Continued)

The 2021 Canadian Electrical Code removed sub-rule 4-004 22) and table 39 which allowed smaller sizes of service conductors for single dwellings and feeder conductors supplying single dwelling units of row housing, apartments, or similar buildings. An Ontario amendment in the 28th edition of the OESC was adopted to add a new sub-rule 4-004 26) and a modified table 39 to permit the reduced sizes that were used safely in Ontario for decades without an incident. The table will provide clarification about parallel conductors for 400A services, while the permission to use #6 Aluminum and #4 Copper for 60A and 100A services respectively was removed. Using reduced sizes of conductors will no longer require additional marking, and the inconsistency with table 13 is eliminated as conductors will be required to have 90 °C insulation rating.

Table 39 Minimum permitted size for 3-wire 120/240V and 120/208V service conductors or cables for single dwellings and feeder conductors or cables supplying single dwelling units of row housing, apartment, or similar buildings (see rule 4-4004 26)

| Overcurrent device rating A | Conductor size, AWG or kcmil, Copper 90 °C | Maximum load [A] | Conductor size AWG or kcmil, Aluminum 90 °C | Maximum load [A]* |
|-----------------------------|--|------------------|---|-------------------|
| 100 | 3 | 100 | 2 | 90 |
| 125 | 2 | 115 | 1/0 | 120 |
| 200 | 2/0 | 175 | 4/0 | 180 |
| 225 | 3/0 | 200 | 250 | 205 |
| 400 | 500 | 380 | 700 | 375 |
| 400 | 2 x 2/0 | 350 | 2 x 4/0 | 360 |

*Loads calculated in accordance with applicable Rules in Section 8 are permitted to exceed these values by 5%

Message from the Director of Licensing



by Soussanna Karas,
Director of Licensing

As we conduct consultations, engage in outreach with LECs and MEs, and manage reports of illegal and noncompliant activities, we keep hearing one message again and again – illegal installations can be dangerous and they need to remain an important safety and compliance priority for ESA. I entirely agree.

Those who perform electrical installations without a permit (Notification of Work) or without an Electrical Contractor Licence, operate outside of the regulatory framework, in the “Underground Economy” putting homeowners at risk. They also undermine consumer confidence in the marketplace. I would like to dedicate this issue to an overview of some recent trends we’ve observed in the Underground Economy as they relate to electrical installations.

I WANT TO HEAR FROM YOU

Do you have a topic, suggestion or comments in relation to licensing, regulation, and regulatory requirements to the LEC and ME licence that you would like to see addressed? Please send me an email: LicensingMatters@electricalsafety.on.ca. We will select a topic from the responses we receive and feature it in the next issue of Plugged In.





Kijiji Pilot Update

- 1 As we shared in previous issues of Plugged IN, ESA has collaborated with Kijiji to educate and address illegal advertisements of electrical services by unlicensed contractors on the platform. This Kijiji pilot is a great opportunity for us to learn and build on our Regulatory Compliance Program (RCP).
- 2 There are many learnings from the Kijiji pilot:
 - a. Where ESA can partner with organizations like Kijiji there are opportunities for us to address the underground economy before consumers are put at risk. RCP staff searches all categories on Kijiji using certain keywords to unveil those that are offering electrical services without being an Licensed Electrical Contractor (LEC). During the period between April 1 and Sept. 30, 2021, RCP staff sent notices to 524 business/individuals who advertised electrical services on Kijiji. During the same period,

354 illegal advertisements were forwarded to Kijiji for removal as non-compliant, and Kijiji has since removed all of them.

- b. When issues are raised with non-compliant advertisements for electrical services, most/many will bring their ads into compliance or take them down. First warning to an unlicensed poster resulted in a 70% decrease in illegal advertising. First outreach to LECs who posted the ad without their ESA/ECRA number resulted in 70% compliance.
- c. For those who repeatedly fail to bring themselves into compliance with respect to unlicensed advertising, enforcement measures can be effective. Between April 1 and Sept. 30, 2021, 54 unlicensed contractors escalated to investigation consideration, 5 convictions granted by the court, 51 ongoing investigations and close to 20 cases before the courts.



Misuses of LEC Licences

Another recently observed trend (from the Kijiji pilot and reported complaints) relates to misuse of LEC licences.

1 We've seen examples of LECs allowing their friends or business partners to advertise on social platforms, including Kijiji, on their behalf. Unfortunately, sometimes those trusted individuals betray the trust and use the ad for personal benefit. They enter into the contract with the customer, but conceal this from the LEC and put money into their own pocket.

2 In the last few months, ESA has also received a large number of complaints about unlicensed contractors offering and installing pot lights in residential settings. It appears that these unlicensed contractors have an understanding in place with an LEC that, if questioned, the LEC will step in and pull the permit, providing a cover for the homeowner, unlicensed contractor and/or ESA.

These situations are extremely concerning. In many cases, unlicensed contractors have no relevant training or skills and leave multiple defects, including Life and/or Property defects.

These type of business arrangements where a LEC knowingly participates in the proliferation of the Underground

Economy undermine consumer trust in the trade and marketplace. They take business away from the licenced electrical contractors. The homeowner is not only misled and receives electrical services with no regulatory oversight but also puts them at risk. Moreover, because the unlicensed contractor is not bonded or insured, both the homeowner and the contractor risk legal and financial implications if somebody gets hurt on the job.

In conclusion, ESA is investing in the pursuit of those who work in the Underground Economy, using tools such as education, direction, warning, investigation and prosecution. However, safety is a joint undertaking and we ask for your co-operation and partnership in building a compliance and safety culture. LECs are role models and leaders in electrical safety. LECs should not allow or cover unlicensed contractors to do electrical work. LECs should be vigilant about allowing others to advertise on their behalf. As always, we ask that you report cases of illegal activity to ESA.



Reports can be filed anonymously through the online reporting tool <https://esasafe.com/contractors/report-non-compliance>.



Dr. Marc Jeschke Talks About the Struggle to Recognize and Accept Electrical Injuries

ESA/ECRA Advisory Council (AC) have partnered with the Ross Tilley Burn Centre since 2006 to support the important work being done to treat patients with electrical injuries. ESA/ECRA AC commitment of \$250,000 over the past five years that has allowed Dr. Jeschke to continue the momentum of this world-leading electrical injury research. Through the video link below Dr. Marc Jeschke, former Medical Director, Ross Tilley Burn Centre, Sunnybrook Health Sciences Centre shares his insights on the struggles people face in gaining acceptance and recognition that they have an electrical injury. Electrical injury — especially where there are no apparent wounds and burns —

continues to be largely misunderstood, questioned (even ignored) by the medical community, healthcare providers and insurance companies, employers and co-workers. Dr. Jeschke and his team at the Ross Tilley Burn Unit work to support and treat patients of electrical injuries through their physical and emotional healing journeys. Specialized treatments are constantly being developed but all require ongoing research and funding. Please watch this insightful [interview Electrical Business](#) magazine has with Dr. Jeschke about the medical research and the physical and mental recovery associate with electrical injuries.

Update from the Customer Service Centre



This past year has created no shortage of change in the world, including those in the electrical sector. Despite the ups and downs, the Customer Service Centre (CSC) remains focused on providing a consistent and quality based customer experience as much as possible.

Since January, ESA has responded to nearly 400,000 customer calls. We understand how important it is for you that we respond to those calls quickly. While individual wait time can vary depending on the date and time a call is made, on average the wait time year-to-date was 39 seconds. In fact, 79% of the time the calls were answered in 30 seconds or less.

We are also proud of our Online Service portal which was launched last year. Since then, we have continued to invest and enhance this system. Providing self-serve capabilities in an increasingly demanding world is a key part of ESA's Customer Experience Strategy. Having tools available online, provides you with the option of contacting ESA at the most convenient time to you. So far this year, over 100,000 notifications were submitted through the online portal.

In addition to calls, the CSC also processes significant numbers of notifications received through email, fax and mail. Email and faxes are prioritized daily and ESA recently implemented a new digital solution that helps expedite that process. What this means to you is a faster and more consistent response.

Finally, providing a professional and cordial response is equally important. The CSC audits its work for quality, including reviewing calls to ensure that the information was processed correctly and that we have provided professional customer service.

The challenges we have all been working through this past year confirms the importance of providing a consistent, professional service to our customers. Like any organization, we are always striving to improve and your feedback is important to us.

Hire a Licensed Electrical Contractor (LEC) Campaign



The new ESA 'Hire a Licensed Electrical Contractor' communications campaign is focused on educating homeowners and the public on the differences between a certified electrician, master electrician and LEC.

ESA has partnered with the Holmes Group (Mike Holmes, Sherry Holmes and Mike Holmes Jr.) as influencers on sharing messages about hiring the right professional for electrical work, through social media content, blogs and videos. ESA in collaboration with the Holmes Group created a 5-minute video to help educate and remind Ontarians of the importance of hiring a licensed electrical contracting business for electrical work at home. Entitled 'Make it Right – Top 5 Things to Know When it Comes to Electrical Work. They discuss who to hire, unlicensed contractors, electrical mistakes, work completion and the importance of filing a notification of work with ESA.



[Check out the video here](#) and kindly share with your customers and through your own social media channels in order to spread these important safety messages. Over the course of the fall, watch for the Holmes Group to share more informative and engaging content. Since this partnership began in April 2021, the Holmes Group has generated more than three million media views among homeowners.

ESA also developed two new website pages to support this campaign: [Finding the Right Contractor](#) and [Do-It-Yourself electrical work](#) that highlights the complexity and dangers of doing electrical work on your own and the homeowner's obligation to file a notification of work.

PODCAST – GROUNDED IN ONTARIO

ESA successfully launched its inaugural monthly podcast, [*Grounded in Ontario*](#), on June 28 made especially for Licensed Electrical Contractors, Master and certified electricians as well people aspiring to work in the electrical trade. We explore topics and best practices to provide you with the tips you need to get electrical jobs done safely! And we are doing it in a way that makes it easy for you to stay up-to-date. To date, we have launched four podcasts that look at the topics of [pools and hot tubs](#), [electric vehicles](#), [Arc Fault and Ground Fault Circuit Interrupters](#) and [the Underground Economy](#). So far, we have achieved an impressive outreach of over 3,000 downloads per episode. The podcast is available on our [website](#) and we invite you to listen and submit ideas for future episodes.



T.P. Electric – 2021 Licensed Electrical Contractor Recognition Award Recipient

On Sept. 30, 2021, ESA held the 2021 Ontario Electrical Safety Awards. The Licensed Electrical Contractor Recognition Award (LECRA) was awarded to T.P. Electric. The LECRA award was created in 2020 in order to recognize the extraordinary work of Licensed Electrical Contractors and their contribution to our sector's safety culture while exceeding their customer's expectations.

T.P. Electric began with Tony Presutti in 1972 as a one-person shop and has grown into a thriving family-owned



T.P. Electric – 2021 Licensed Electrical Contractor Recognition Award Recipient (Continued)

business with 12 employees servicing municipal, regional and provincial contracts. Next year, they will be celebrating their 50th anniversary – a testament to their commitment to safety and service in the community.

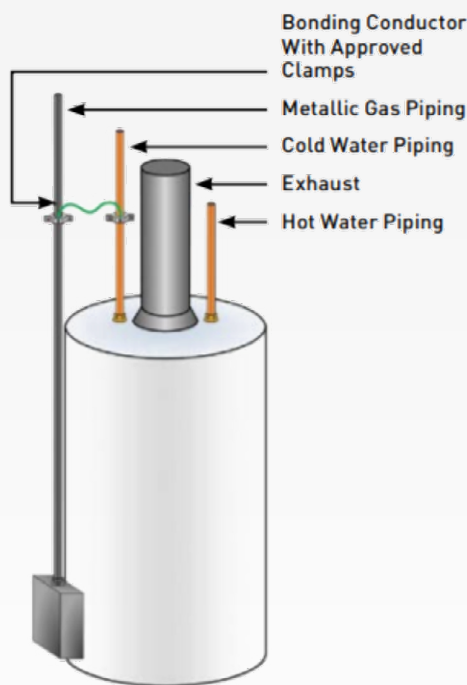
T.P. Electric has shown commitment to the development and implementation of various prevention-based safety programs that have helped to create

more awareness in the company and has given employees the tools to make safety an integrated part of their jobs. The dedication to safety is most evident in their safety record of Zero Lost Time Incidents over the past 20 years.

Congratulations to T.P. Electric as this year's 2021 Licensed Electrical Contractor Recognition Award recipient.

Bonding of Non-electrical Equipment 10-708

Rule 10-708 1) requires an equipotential bonding conductor between the gas piping system and electrical equipment to be a minimum of No.6 AWG copper or a No.4 AWG aluminum conductor, with approved clamps suitable for the conductor size and type when run as open wiring. Note: Corrugated Stainless Steel Tubing (CSST) is required to be grounded (direct-bonded) for lightning protection in accordance with Technical Safety Standards Authority (TSSA) requirements and manufacturer installation instructions. This requirement will also achieve equipotential bonding. Refer to Bulletin 10-14-* for more information.





CODE CONUNDRUM

Q1

The ampacity of the supply conductors from a small wind turbine system shall not be less than ____ of the maximum rated current of the generator

- a. 125%
- b. 135%
- c. 250%
- d. 300%

Q2

In buildings for residential occupancy, two or more heating fixtures are permitted to be connected to a branch circuit used for space heating, provided that the branch circuit overcurrent devices are rated not more than ____.

- e. 15 A
- f. 20 A
- g. 30 A
- h. 40 A

Q3

The minimum headroom in working space around elevator controller and disconnecting means shall be:

- i. 1.6 m
- j. 2.0 m
- k. 2.2 m
- l. 2.5 m

ANSWERS:

Question 1: a. 125% (Ref: Rule 64-304)

Question 2: c. 30 A (Ref: Rule 62-114)

Question 3: b. 2.0 m (Ref: Rule 38-005)

REGISTER TODAY FOR THE 2021 ANNUAL LICENCE HOLDER MEETING!

Click on the image or link below.

https://electricalsafety.zoom.us/webinar/register/WN_J7-P2Kj4SKq_PmILLWMYzQ

2021 Virtual Licence Holder Meeting



November 18, 2021

2:00 p.m. - 4:00 p.m.

ESA's annual Licence Holder Meeting will keep you up to date on the latest news affecting you. There will also be an opportunity to ask questions.

Let us know what you want to learn more about...

Submit your Licensing or Code questions with your registration email by November 4, 2021.

Register now to save your space and receive a Zoom link and passcode for the meeting.



Registration here.



WHAT'S HAPPENING

STAY TUNED!

2021 ONTARIO ELECTRICAL SAFETY CODE TRAINING NOTICE



Pending government approval of the 2021 OESC, ESA's Training Solutions is developing a schedule of new OESC courses for spring 2022.



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