

# PLUGGED IN

SUMMER 2023



## ME Competency Profile Q&A | p.9

Do you have questions about the ME Competency Profile?



## Coming Soon! Changes to LEC Online Portal Scheduling | p.16

Learn what new scheduling rule changes are coming to the LEC Online portal.



## Spotlight on Common Defects - Rule 12-3024 | p.20

Unused openings and missing coverplates.



Electrical Safety Authority

**NEW!**

# The Competent Master Electrician Module



**Now Available!**



# Convictions (1 Feb/23 – 30 Apr/23)

## Unlicensed ▼

### Aziz Abdy

Advertised electrical services while unlicensed on Kijiji platform.

- \$3,000.00 fine, plus \$750.00 victim surcharge – Advertising

### Dominic Agyei

Advertised electrical services while unlicensed on Kijiji platform.

- \$3,500.00 fine, plus \$875.00 victim surcharge – Advertising

### Ammar Chaudhry

Renovations at residence – 1 site.

- \$3,000.00 fine, plus \$750.00 victim surcharge – No EC licence
- \$3,000.00 fine, plus \$1,500.00 victim surcharge, plus Probation Order – Left Hazards

### Marc Dion

Advertised electrical services while unlicensed on Kijiji platform.

- \$6,000.00 fine, plus \$1,500.00 victim surcharge – Advertising

### 1791144 Ontario Ltd., Gallant Construction Ltd.

Renovations at commercial building – 1 site.

- \$3,000.00 fine, plus \$750.00 victim surcharge – No EC licence

### Timothy Gallant

Renovations at commercial building – 1 site.

- \$3,000.00 fine, plus \$750.00 victim surcharge – No EC licence

### 1791144 Ontario Ltd., Gallant Construction Ltd.

Renovations at commercial building – 1 site.

- \$3,000.00 fine, plus \$750.00 victim surcharge – No EC licence

### Michael Gargano

Renovations at residence(s) – 2 sites.

- \$3,000.00 fine, plus \$750.00 victim surcharge – No EC licence
- \$1,500.00 fine, plus \$375.00 victim surcharge - Advertising

### Richard Gillett

Renovations at commercial building – 1 site.

- \$3,000.00 fine, plus \$750.00 victim surcharge plus Probation Order – No EC licence

### Christopher Harnett

Advertised electrical services while unlicensed on Kijiji platform.

- \$5,000.00 fine, plus \$1,250.00 victim surcharge – Advertising



## Convictions (Continued)

### Jayson Jensen – Repeat Offender

Renovations at residence – 1 site.

- \$6,000.00 fine, plus \$1,500.00 victim surcharge – No EC licence
- \$2,000.00 fine, plus \$500.00 victim surcharge – Failure to Apply for Notification of Work

### 11543199 CA Corp.

Renovations at residences – 2 sites.

- \$3,000.00 fine, \$750.00 victim surcharge – No EC licence
- \$3,000.00 fine, \$750.00 victim surcharge – No EC licence
- \$3,000.00 fine, \$750.00 victim surcharge – Left Hazards
- \$1,500.00 fine, \$375.00 victim surcharge – Failure to apply for Notification of Work
- \$1,500.00 fine, \$375.00 victim surcharge – Failure to apply for Notification of Work

### Jayson Jensen, Director of 11543199 CA Corp.

Renovations at residences – 2 sites.

- \$4,000.00 fine, plus \$1,000.00 victim surcharge – No EC licence
- \$4,000.00 fine, plus \$1,000.00 victim surcharge – No EC licence

### Elite Solar and Total Generator

Renovations at a residence – 1 site.

- \$6,000.00 fine, plus \$1,500.00 victim surcharge – Operate without EC licence
- \$2,500.00 fine, plus \$625.00 victim surcharge – Fail to Apply for an Inspection

### Paul Mullen – Repeat Offender

Renovations at a residence – 1 site.

- \$7,000.00 fine, plus \$1,750.00 victim surcharge – Operate without EC licence
- \$3,000.00 fine, plus \$750.00 victim surcharge – Fail to Apply for an Inspection

### Daniel Rosario

Advertised electrical services while unlicensed on Kijiji platform.

- \$2,000.00 fine, plus \$500.00 victim surcharge – Advertising

### Jody Sargeant

- \$3,000.00 fine, plus \$1,750.00 victim surcharge – No EC licence
- \$3,500.00 fine, plus \$875.00 victim surcharge – Left Hazards



### Convictions (Continued)

#### Hak Sea

Advertised electrical services while unlicensed on Kijiji platform.

- \$2,000.00 fine, plus \$500.00 victim surcharge – Advertising

#### Lloyd Sinnott

Renovation at residence – 1 site.

- \$500.00 fine, plus \$125.00 victim surcharge – No EC licence
- \$1,500.00 fine, plus \$375.00 victim surcharge – Failure to Apply for Notification of Work

#### Jaehyung Suh

Renovation at residence – 1 site.

- \$3,000.00 fine, plus \$750.00 victim surcharge – Left Hazards
- \$1,500.00 fine, plus \$375.00 victim surcharge – Failure to Apply for Notification of Work

#### Nicola Valla

Advertised electrical services while unlicensed on Kijiji platform.

- \$3,000.00 fine, plus \$750.00 victim surcharge – Advertising

#### Johan Hildebrandt o/a Hiltertan Electrical

Renovations at residences – 2 sites.

- \$3,000.00 fine, \$750.00 victim surcharge – No EC licence
- \$3,000.00 fine, \$750.00 victim surcharge – No EC licence
- \$3,000.00 fine, \$750.00 victim surcharge – No EC licence
- \$3,000.00 fine, \$375.00 victim surcharge – No EC licence



# Convictions (Continued)

## R. Gillett Case Resolution

In June 2022, Mr. Richard Gillett, who is not a licenced electrical contractor, was hired to replace the main electrical distribution panel at a residential property, work he completed without filing a Notification of Work with ESA. Mr. Gillett was charged with operating an electrical contracting business without a valid electrical contractor licence and failing to file an application for inspection of work on an electrical installation as required by the OESC. In February 2023, Mr. Gillett was convicted on count 1 and

fined \$3,000 plus a 25% victim surcharge and placed on probation for two years. As part of his Probation Order, Mr. Gillett was required to publish a letter to Ontarians acknowledging his conviction and explaining the importance of electrical safety. This is the first time that a Probation Order has included a public letter of acknowledgement for wrongdoing as part of an ESA conviction. A copy of Mr. Gillett's open letter can be viewed [here](#).

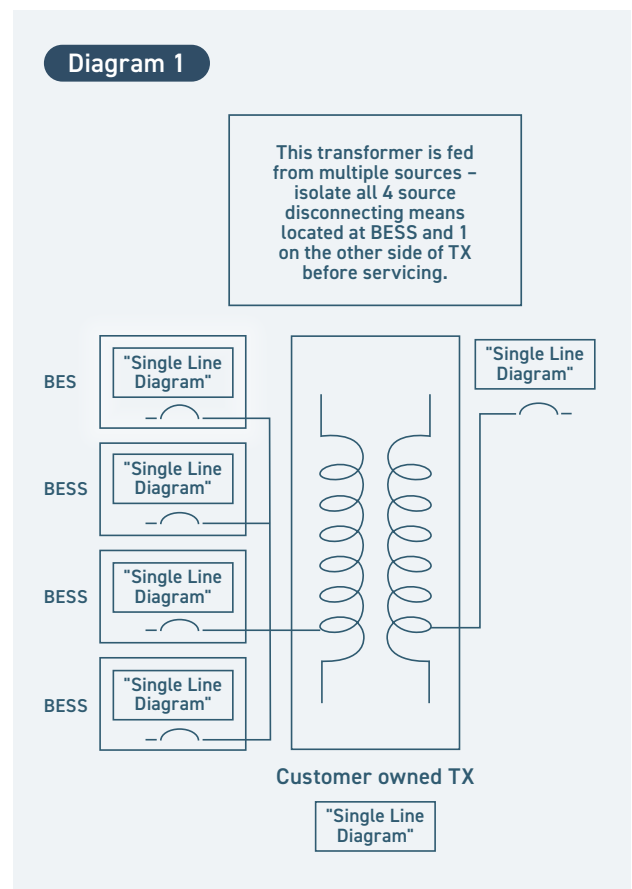
## 26-248 Disconnection Means for Transformers When Connected to Multiple Electric Production Sources

Traditionally, transformers have been unidirectional, connected to a single source and feeding a load. As the installations of renewable and energy storage systems increases, the related codes and standards have attempted to adapt to the unique nature of these systems. With the adoption of new technology and systems, such as Battery Energy Storage Systems (BESS), or bi-directional EV supply equipment, a traditional load fed by a transformer is also a source that challenges some Code rules.

Diagram 1 is an example of multiple BESS that are connected to a single transformer.

- In charging mode of operation, the transformer primary is connected to a supply authority system and the BESS functions as a load connected to the transformer secondary circuits. This mode of operation is very similar to typical loads connected to a transformer.
- In discharging mode of operation, the BESS functions as an electric power production source when it transfers the stored energy back to the supply authority or used to support customer loads. A BESS is capable of running in parallel with supply authority systems, and is therefore considered to be

interconnected with the grid. Section 84 rules for the interconnection of electric power production sources and the applicable rules from Section 64 apply. Rule 64-058 2) requires that when a transformer has a source on both sides, each side is to be considered the primary and be provided with overcurrent protection as per Section 26.



## 26-248 Disconnection Means for Transformers When Connected to Multiple Electric Production Sources (Continued)

Since both sides of the transformer are considered to be the primary based on the operational modes of BESS, the applicable requirements in Section 26 for transformer primary disconnecting means shall apply. Rule 26-248 states: ***“A disconnecting means shall be installed in the primary circuit of each power and distribution transformer.”***

Considering traditional unidirectional transformer operation with a single primary circuit, it has been interpreted that a “single” disconnecting means is required by Rule 26-248 for a single primary circuit.

However, when multiple BESS are connected to a single transformer, there are multiple primary circuits and it is debatable if Rule 26-248 requires a disconnecting means for each primary circuit or a single disconnecting means for the transformer.

Also, Rule 64-060 6) states: ***“Where the equipment is energized from more than one supply source, the disconnecting means shall comply with Rules 14-414 and 14-700.”***

The transformer in our example, Diagram 1, is “electrical equipment” that is energized from multiple BESS or “more than one supply source” (other different sources of voltage). Each BESS supply circuit is provided with a disconnecting means that may not be adjacent to the transformer, but may be grouped in accordance with Rule 14-414 1) b).

Rule 84-020 and Bulletin 64-1-\* requires a disconnecting means for each electric power production source. It is debatable if those two requirements, disconnecting means for each source and disconnecting means for each primary circuit could be achieved with one device.

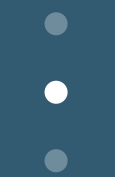
To provide clarification on the application of these different OESC requirements, the following direction is provided:

**Question** – Does Rule 26-248 require a single disconnecting means on both sides of a transformer connected to multiple electric production sources, such as the BESS depicted in Diagram 1?

**Answer** – Yes, however, notwithstanding Rule 26-248 and considering Rules 64-060 6) and 14-414 1) b), a disconnecting means located in each source circuit shall be permitted by ESA if all of the following conditions are met:

Each circuit supplying an electric production source is equipped with a single lockable disconnecting means that meets one of the following 2 options:

1. The transformer and disconnecting means for all sources, or containers they are housed in, are located within sight from the other disconnecting means, or containers they are housed in, and the transformer; or
2. Interlocked with the transformer such that access to energized parts within the transformer is not possible unless all disconnects are open;





## 26-248 Disconnection Means for Transformers When Connected to Multiple Electric Production Sources (Continued)

3. Marking shall be provided at the transformer indicating "THIS TRANSFORMER IS FED FROM MULTIPLE SOURCES - ISOLATE ALL <insert number> SOURCE DISCONNECTING MEANS LOCATED AT <specify location of disconnecting means> BEFORE SERVICING";
4. A single line diagram is posted at the transformer and at each disconnecting means that at minimum identifies the location of all disconnecting means used to isolate both sides of the transformer from all sources; and
5. Lockable breakers are used to provide overcurrent protection and means of disconnecting the BESS source circuits

**Rationale** – The term "A" disconnecting means is singular in Rule 26-248 and the rule is not amended by Section 64. Although Rule 26-248 requires a single disconnecting means for the transformer, a comparable level of safety is achieved where disconnects are installed in the circuit of each power production source and the additional requirements outlined in the answer. These additional requirements are meant to mitigate concerns with the transformer remaining energized should the operator not isolate the transformer from all sources.

The requirement for the use of a circuit breaker versus fusible disconnects prevents violation with Rule 64-060 8) that requires fuses to be equipped with the disconnecting means from all sources.

Designers should be aware of the potential associated complexities in meeting other OESC requirements when designing these systems. For example, solidly grounded systems must take into consideration Rule 10-212 when locating the system bonding jumper and how that impacts the type and location of ground fault protection (GFP) sensors when the circuit ampacity requires GFP. In addition, with all circuits terminating at a single point, contribution from all other circuits must be considered when determining conductor protection.

Rule 84-020 and Bulletin 64-1-\* require a disconnecting means for each electric power production source. Those two requirements, disconnecting means for each source and disconnecting means for each primary circuit could be achieved with one device. Therefore, requirements of Rule 14-414 for disconnecting means to be adjacent to the equipment (transformer) are not required to be satisfied and a similar level of safety is achieved with the inclusion of a single line diagram and grouping of disconnecting means.





## Message from the Director



**SOUSSANNA KARAS**  
Director of Licensing

Following the publication of the Competency Profile for Master Electricians (ME), ESA received a number of questions from stakeholders asking for further clarification on the purpose, use and implementation of the Competency Profile. I divided these questions into themes and will answer them below.

### 1 What is the purpose of this Competency Profile?

This Competency Profile describes the abilities and best practices of an individual applying for and holding a Master Electrician (ME) licence. These competencies are defined as *“an observable ability of individual at the point of qualifying for a Master Electrician Licence that integrates the knowledge, skills, and judgment required to operate safely and ethically”*.

The Competency Profile may be used for many purposes, including but not limited to:

- Setting licensure requirements, including the Master Electrician Exam
- Communicating the value of MEs to customers and stakeholders
- Developing standards and policies
- Informing matters related to professional conduct
- Developing training curriculum and informing continuing education requirements

### 2 Have you consulted the industry (MEs) during the development of this Competency Profile?

The ESA has worked closely and extensively with the ME and Licensed Electrical Contractor community to develop this profile, including reviewing industry best practices, building a robust methodology, engaging a team of subject matter experts, interviewing and surveying stakeholders, and working in partnership with Electrical Contractors Registration Agency Advisory Council (ECRA AC) as well as volunteers from the ME and LEC community.

## Message from the Director (Continued)

### 3 As a ME licence holder, do I have to possess ALL of these competencies?

The Competency Profile is not a new checklist of required behaviours and skills, and there is no new compliance associated with it. They are a list of proficiencies and best practices that support overall compliance with the existing regulatory requirements of MEs. It is our goal that, over time, individuals who are applying for the licence are able to demonstrate the competencies listed in the profile. These competencies would then be retained and developed post-licensure as an ME progresses throughout their career.

We acknowledge that as the Competency Profile is being rolled out, many MEs may not have all of the listed competencies on day one. The profile is an aspirational goal, i.e. we encourage every ME to review it and structure their professional development goals to obtain or enhance skills and knowledge described in the Competency Profile.

### 4 I am not a DME, do these competencies apply to me?

While not every ME may be appointed as a DME, the ME licence entitles every ME to be designated to oversee affairs of a Licenced Electrical Contracting (LEC) business. As a result, these competencies are applicable to all ME licence holders.

### 5 What happens if I don't have some of these competencies? Is my licence at risk?

No. The Competency Profile has been developed by the industry for the industry. At this early stage of its existence, these competencies are aspirational and outline behaviours that support a compliant use of your ME licence. We encourage MEs to review them and, as applicable, structure their professional development.

### 6 How do I go about developing or expanding these competencies?

As part of the Licencing Strategic Plan, ESA is committed to evolve its oversight to add value, motivate compliance and enhance public confidence and safety in licensed community. As a result, there are a number of educational resources that are currently offered by ESA:

- Check out the Competent DME Module. This is a 25 minute interactive presentation, available free of charge, to MEs and LECs. This module presents scenarios that illustrate real-life situations where DMEs must make decisions to comply with applicable legislation and regulations. By the end of the module, DMEs and LECs will be able to recognize the responsibilities of Designated Master Electricians in terms of DME Oversight, License Holder Standards of Conduct, and Prohibitions for DMEs. To access this Module go to [www.esasafe.com/contractors/the-competent-dme](http://www.esasafe.com/contractors/the-competent-dme)



# Message from the Director (Continued)

- ESA's Training Solutions, which is a non-regulatory business of ESA, offers safety and technical training, designed to offer practical help to the licensed community. To find out more, please follow this link: <https://esasafe.com/contractors/training/safety-and-technical-training/>
- Other regulators, associations and organizations offer various training programs that may be useful to develop or improve competencies listed in the Competency Profile. We will be posting links and additional information as it becomes available. Make sure to frequently check this link for updates: <https://esasafe.com/contractors/competency-profile/>

## 7 Why should I have these competencies?

**Business Advantage** – The elements in the Competency Profile set licence holders apart, and show a clear advantage from those operating in the underground economy. You can refer your clients to the Competency Profile to demonstrate your professionalism, skills and knowledge.

**Strengthening consumer confidence and reputation in the industry** – Having an ME licence is a privilege reserved for highly skilled and qualified individuals. These competencies help ensure that all of those who have the licence contribute to the building of consumer confidence in the proficiency and professionalism of our licensed MEs and the LECs they represent.



## Continuing Education Update

As you know, Auditor General Recommendation No. 17 (AGR 17) recommended ESA and the Ministry to work together to implement Continuing Education (CE) for Master Electricians.

ESA has done a fair amount of work to comply with this recommendation. We drafted a CE framework, conducted internal and public consultations on that framework and worked with ECRA, Contractor Advisory Council and Consumer Advisory Council to receive their input.

In April 2023, the Ministry of Public and Business Service Delivery advised ESA that it continues to assess how best to respond to the Auditor General's recommendation regarding continuing education, in consideration of stakeholder feedback it has received.

At ESA, we continue to advocate and support the concept of continuing education for MEs for its electrical public safety benefits, including strengthening consumer confidence in electrical industry.

Going forward, we will be working with internal and external stakeholders to review and consider ways to encourage MEs to take Code and other technical and non-technical courses necessary to perform their work safely and ethically.

### Licence Number on Vehicle

Do you have a business vehicle? Are you thinking about advertising your electrical contracting business online? As a Licenced Electrical Contractor, you are required to clearly, and visibly, display your licence number on all correspondence, including contracts, invoices, receipts, business cards, business vehicles and on any advertisements, such as Kijiji.

At ESA, we advise customers to look for the ECRA/ESA number as a way to distinguish between licenced and unlicenced electrical contracting businesses.

Let people know you have the expertise, training, and equipment to do the job safely by proudly displaying your licence number. You have worked hard to get your Electrical Contractor Licence, show it off!

For more information about these requirements and to download the ESA logo, [www.esasafe.com/contractors/display-your-licence](http://www.esasafe.com/contractors/display-your-licence).



## Designated Master Electricians Must be Employed

Every Licenced Electrical Contractor (LEC) must designate at least one Master Electrician. If not the LEC owner, the Designated Master Electrician (DME) must be actively employed and on payroll of the electrical contractor. The DME cannot be a sub-contractor, or only paid to have their Master Electrician number associated to the electrical contractor with no oversight responsibilities.

The responsibility to be actively employed, on payroll, be engaged and have oversight of the electrical installations is a joint responsibility for LEC and DME.

Take some time to ensure you are compliant with the requirements. If you needed to provide proof of employment, would you be able to?

### Check your knowledge:

Which one of the statements below is correct?

- a. If the owner of a LEC is not the DME, the DME must be on payroll.
- b. As long as the DME has oversight, they can be paid by cash or personal check.
- c. Arrangements such as hiring a DME as a subcontractor, not on payroll, is permitted.

The correct answer is A.

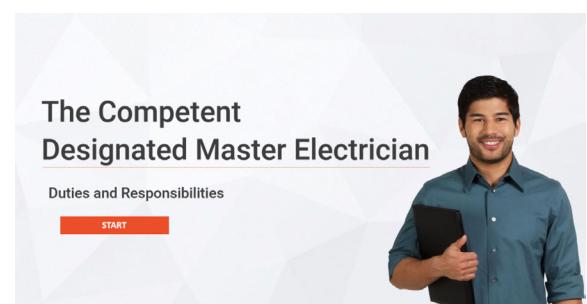
## Are you a Master Electrician or Licenced Electrical Contractor? The Competent Designated Master Electrician Module is now available!

Designated Master Electricians (DMEs) play a crucial role in ensuring the safety and compliance of Licenced Electrical Contractor (LEC) businesses. Each DME is responsible for planning and supervising electrical work carried out on behalf of the LEC.

To assist DMEs and LECs in navigating their duties and responsibilities, the Electrical Safety Authority has created The Competent Designated Master Electrician module. This 25-minute module presents various scenarios that illustrate real-life situations where DMEs must make decisions to remain compliant with Ontario Regulation 570/05: Licensing of Electrical Contractors

and Master Electricians, the Ontario Electrical Safety Code, consumer protection legislation, health and safety laws, employment standards laws, and business practices.

Find the module at [www.esasafe.com/contractors/the-competent-dme/](http://www.esasafe.com/contractors/the-competent-dme/)



## DME Verification Initiative

Based on the recommendation of ECRA AC, developed under the Regulatory Compliance Program, the goal of the DME Verification Initiative was to ensure that every Licenced Electrical Contractor (LEC) employs (as part of the payroll) at least one Designated Master Electrician (DME). Recognizing DME's key role in improving electrical safety and regulatory compliance within the LEC business, this Initiative is intended to increase awareness within LEC community of their responsibility to have the DME on company's payroll.

In the fall of 2022, a sample (20%) of LECs who had a DME other than a Principal of the company were asked to provide proof of DME employment.

Through this communication outreach, it was determined that out of the 258 LECs that were contacted, 63 (24%) were not in compliance and did not have the DME on payroll.

ESA provided timelines to those LECs to put the DME on the payroll. 54 LECs have since come into compliance. Nine (9) LECs who failed to actively employ a DME had their EC licence suspended.

Remember! A DME cannot be a sub-contractor, they must be on payroll and must be given oversight responsibilities by the LEC.



If you are seeing any trends in the electrical industry, or you have any suggestions on future initiatives, please let us know [LicensingMatters@electricalsafety.on.ca](mailto:LicensingMatters@electricalsafety.on.ca)



### Licensing at a Glance April 1, 2022 – March 31, 2023

#### UNLICENCED CONTRACTOR ACTIVITY

512

Notices of Violation

91

Investigations

77

Convictions



**\$203,100** Total Fines

*(including suspended sentences)*

#### LICENCED ELECTRICAL CONTRACTORS

9,769

Licensed Electrical Contractors

15,733

Master Electricians

1,341

Licences Suspended

7

Licences with Conditions

1

Conviction

## ESA Anonymous Online Reporting

ESA is serious about the Underground Economy. We created the anonymous reporting tool <https://esasafe.com/contractors/report-non-compliance/> so that members of the public, LECs, MEs and all of our partners in safety can report instances of illegal or non-compliant electrical installations.

Just in the past year the Regulatory Compliance staff reviewed 1,455 online reports of non-compliance.

Since launching the anonymous reporting tool three years ago, nearly 4,000 reports of non-compliance have been submitted, reviewed and actioned by staff.

### See Something – Say Something

Please report to ESA if you are aware, or even suspect that:

- electrical work is being performed by someone who is not a Licensed Electrical Contractor
- someone is advertising their services as an LEC but in fact are not an LEC
- notifications of work are not being filed
- there is unsafe electrical wiring or an unsafe electrical installation

Encourage your customers, homeowners and other trade or general contractors to use this anonymous reporting tool. Together we can tackle the underground economy!



## Coming Soon! Changes to Notification Scheduling in LEC Portal

Effective the end of June 2023, some additional notification scheduling rules will take effect in the LEC Online Portal. These rules are being implemented in order to prevent some scheduling scenarios from taking place in the LEC Online Portal that are problematic from an operational standpoint.

The three scenarios being addressed are as follows:

- 1 LECs will not be able to reschedule a notification where a pre-authorized connection has been issued, but the notification has not yet been actioned by the inspector.

This will ensure that notifications granted the pre-authorization benefit are reviewed by the Inspector.

- 2 Will not be able to reschedule a notification that has outstanding defects for any inspection other than Defects Corrected.

This will ensure that ESA's defect follow up process is followed.

- 3 Will not be able to reschedule a notification where the inspection date is the current date, i.e. is today.

This will ensure that notifications that are not ready for inspection are not prematurely actioned by the inspector.

In all three of the above examples, you will need to reach out to ESA's Customer Service Centre, and a Customer Service Representative will be happy to update the notifications on your behalf, and to communicate any changes to the inspector and, where applicable, the local distribution company.

The Customer Service Centre may be reached by phone at 1-877-372-7233 between the hours of 7 a.m. and 4:30 p.m., Monday to Friday. Alternatively, rescheduling requests may be sent to [ESA.Cambridge@electricalsafety.on.ca](mailto:ESA.Cambridge@electricalsafety.on.ca)



## ESA Continues to Improve Scheduling Tools and Communication to Contractors

Effective May 15, 2023, Contractors are able to call in to the Customer Service Centre or use ESA Online Services to select an inspection date for notifications that have a 100% Inspection recommendation. Since the system verifies that the Inspector is in the area and has availability, the feature helps reduce the number of rescheduled and cancelled inspection requests. We are also removing the 1 p.m. communication cut-off time. Our stakeholders told us that there is more benefit from receiving communications and updates from ESA as it becomes available. For that reason, we will issue Pass No Visit, Scheduled Forward and Final Inspection Required correspondence more effectively throughout the day.

Contractors also requested that ESA release communications to them sooner in the work day, for planning purposes. We have adjusted the hold we place on overnight correspondence to 10 p.m. to 5 a.m. (from 11 p.m. to 6 a.m.). The system will not issue messages during this timeframe, but ensures that contractors receive updates from us first thing in the morning. Contractors who provide ESA with an email address and mobile number will receive messages to both.

## Fees Increase Effective September 18, 2023

The ESA plans to increase wiring and licensing fees by 5%, to respond to inflationary pressures, on September 18, 2023.

This increase reflects the inflationary pressures and economic headwinds that the ESA, and many organizations, are facing, while continuing to deliver on the ESA's important mandate for sector and public education, and invest in operational efficiencies and the digital strategy.

Over the past seven years, wiring fees have faced a fee increase of only 2%, while licensing fees have not increased at all. Effectively, the ESA has managed prudently and absorbed the cumulative inflation costs of over 20% during that seven-year period.

While we recognize the burden that fee increases put on our stakeholder community, we will continue to drive public value through our financial and operational performance, and by continuing to find ways, like the new ESA ON App, to drive cost and burden reduction in the sector.

## Unlocking the Strength of Partnerships: Ontario Association of Certified Technicians and Technologies (OACETT) & ESA

As a collaborative safety regulator that plays a critical role in the electricity ecosystem, ESA recognizes the importance of continuing to develop its partnership network by sharing electrical safety expertise.

In early June, ESA joined engineering and applied science technology professionals, industry leaders, college representatives, association leaders, and government officials for the Ontario Association of Certified Technicians and Technologies (OACETT) 2023 Conference & Awards Gala in Niagara Falls.

OACETT members are one of four (4) groups eligible to apply for the ME licence with ESA. As such, ESA values this opportunity to share our vision and mission with the broader OACETT membership group.

ESA participated in a Technology Partnership Showcase, which involved networking sessions featuring state-of-the-art technology used by colleges and industry partners. ESA also participated in sessions on emerging technologies for achieving Net Zero and promoting sustainable behaviour change.

ESA recognizes that collaboration fosters shared knowledge and promotes safer and more sustainable work environments that benefit all stakeholders. By unlocking the strength of partnerships, we can learn more, educate ourselves, and become stronger and safer together. Thank you, OACETT, for hosting this valuable educational event!



L-R: Michael Mooney, OACETT Board President, Julia Farner, OACETT Manager Marketing and Communications, Sarah Kempel, Program Coordinator, Continuing Education, ESA and Alejandro Gonzales, Training Program Manager, Continuing Education, ESA.

# WORTH KNOWING

ESA is pleased to provide LECs and their teams with a new monthly one-pager to talk about safety, seasonal reminders, code updates and more!

We have heard from many of you on the front lines that you are looking for more information to share and discuss with your teams on things that matter to you – but without having to overload you with information.

This digital one-pager will be issued on a monthly basis and can be found [here](#) with a new edition being posted regularly! Please find below the links to the first three issues of Toolbox Talks.

If you have any questions, please reach out to [esa.communications@electricalsafety.on.ca](mailto:esa.communications@electricalsafety.on.ca)

**What you need to know about Pools and Hot Tubs**

**Installing a pool or hot tub?**

If you are digging a trench, always remember when burying both electrical and gas in the same trench, you must follow these rules:

- Where possible, electrical wiring and other services that you lay next to other in the trench shall be separated horizontally by a minimum of 300 mm within the trench.
- Where electric wiring and other services cross each other, they shall be separated vertically by a minimum 300 mm at the point of crossing.
- Note the marking requirement for buried electrical wiring is contained in OESC Bulletin 12-2-21 "Buried electrical installations and cables for subsurface use". Visit [esa.on.ca/bulletins](http://esa.on.ca/bulletins) for details.

**LICENSING MATTERS**

See something? Say something.

If you know of electrical work being done by an unlicensed individual or without inspection, provide the appropriate information to our website.

We would like you to help us following on unlicensed electrical work. See reporting unlicensed work on our website [www.esa.on.ca/reporting](http://www.esa.on.ca/reporting)

[Download](#) | [View Online](#) | [Feedback](#)

April 2023

**Dealing with Spring Flooding**

**Did You Know?**

The OESC has a section in dealing with the Climate Change Adaptation Protect?

Rules 2-632 Damage and Interference

Electrical equipment that has been exposed to liquid or water shall be subjected to evaluation to determine whether or not the equipment may be permitted back into service.

Before trying to re-energize the equipment, ESA would need an evaluation done on the equipment by ASEP.

1) Original manufacturer  
2) Field Evaluation Agency  
3) Qualified person such as an LEC (depending on the severity of the damage)

**New Ontario Electrical Safety Code Rules**

NEEM Rule 26-652 require branch circuits located below grade level, to be installed in a flood zone, to be provided with ground fault protection.

NEEM Rule 26-712 require buildings in flood zones to have spring warning receptacles located above the flood elevation or in marked "basins for submersibles".

**LICENSING MATTERS**

See something? Say something.

If you know of electrical work being done by an unlicensed individual or without inspection, provide the appropriate information to our website.

We would like you to help us following on unlicensed electrical work. See reporting unlicensed work on our website [www.esa.on.ca/reporting](http://www.esa.on.ca/reporting)

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**Arc Fault Protection of Branch Circuits for Dwelling Units**

**Did You Know?**

Arc faults are the leading cause of fires in homes.

They are also one of the top five defects identified by ESA inspectors.

In fact, reports estimate that 70 to 75 per cent of all electrical house fires in the United States are caused by arc fault conditions. If you're not sure about the likelihood of arc faults in your home, it's worth getting a professional assessment of your electrical system to be sure you're protected.

**Ontario Electrical Safety Code Rule Pertaining to AFCI Protection**

26-658 Arc-fault protection of branch circuits for dwelling units

AFCIs are required to be marked "ARC FAULT CIRCUIT INTERRUPTER" or "AFCI". All types of AFCI, including combination type (AC) branch-circuit protectors, which are breakers that combine both series and parallel arc-fault protection to the entire branch-circuit wiring.

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June 2023



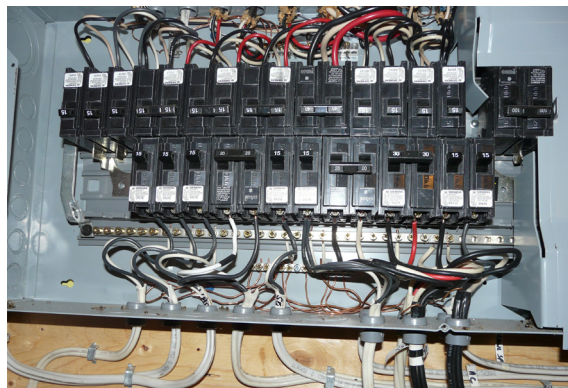
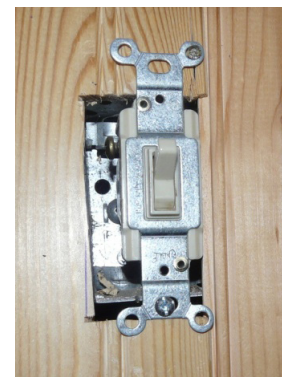


## Unused Openings and Missing Cover Plates

Rule 12-3024 of the Ontario Electrical Safety Code (OESC) requires unused openings in boxes, cabinets, and fittings to be effectively closed by plugs or plates affording protection substantially equivalent to that of the wall of the box, cabinet or fitting.

Missing cover plates or unused openings left unplugged in electrical enclosures with energized conductors – such as panel boards, electrical outlets, disconnect switches, etc. – represent a shock hazard to individuals that have access to this area. It can also be a fire hazard if an object falls inside one of these enclosures and causes an arcing fault between energized conductors or if the electrical device fails in close proximity to combustible. For example, a receptacle with missing cover plate may cause the adjacent wood panels to catch on fire in event of failure. The cover would usually mitigate that hazard.

ESA strongly recommends maintenance staff and facility operators perform periodic inspections to ensure unused openings in electrical enclosures are filled properly and all cover plates on electrical devices are in place.



## CODE CONUNDRUM

**Q1**

**When a PV recombiner is more than 7.5 metres from the inverter, the disconnect:**

- a. Shall be rated to interrupt the load
- b. Shall be installed within 2 metres of the recombiner
- c. May be integral with the recombiner
- d. All of the above
- e. Is not required

**Q2**

**The ampacity of a communication cable marked "-LP" is determined by:**

- a. Table 60
- b. The ampacity marked on the cable
- c. A qualified person
- d. Any of the above

**Q3**

**Raceways which are less than 2 m above grade and subject to mechanical damage shall:**

- a. Be of rigid steel type
- b. Protected by location
- c. Protected by steel guards, min. 10 MSG, secured in place
- d. Any of the above

### Answers

**Question 1:**

- d. All of the above
- Ref: Rule 64-060*

**Question 2:**

- b. The ampacity marked on the cable
- Ref: Rule 16-330*

**Question 3:**

- d. Any of the above
- Ref: Rule 12-934*

SAVE THE DATE

# 2023 Annual Meeting & Ontario Electrical SAFETY AWARDS

September 28, 2023  
3:00 p.m.–4:30 p.m.

Mississauga Grand  
35 Brunel Road, Mississauga, ON L4Z 3E8  
Invitation to follow shortly



Powerline  
Safety



Worker  
Safety



Consumer and  
Home Safety

You're invited to the

## 2023 ANNUAL LICENCE HOLDER MEETING



### Save the Date!

The 2023 Annual  
Licence Holder Meeting  
will be held **virtually**:

**November 22**  
**2 p.m.–4 p.m.**

- During the meeting, you will learn about the latest developments in Licensing, information about our communications campaigns, and enforcement activities to address the Underground Economy.
- This year's keynote speakers will highlight the consequences of unsafe work practices and emphasize the importance of working safely.
- You will have the opportunity again to ask questions to our team and technical advisors.
- Invitations will be sent to your email address on file with ESA during the last week of October. If you do not see an email in your inbox, make sure to update your email address by completing a Notice of Change form ([available here](#)) and send it to [esa.licensing@electricalsafety.on.ca](mailto:esa.licensing@electricalsafety.on.ca).